

Informal settlements' urban recognition process: A case study of the Essadikia Quarter in Laghouat, Algeria

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Received: April 2020 • Final Acceptance: January 2021

Abstract

The main topic of this article is about the dealing with the informal settlements in the city. This paper aims to identify urban transformations in Essadikia, an informal settlement known for its high density, in the city of Laghouat in the south of Algeria.

Its history explains the paradoxes of the Algerian city, and more precisely, in Saharan cities where quarters grew rapidly after the Algerian independence in 1962.

This study examines the urban recognition process through the strategies of different actors. Our study based on fieldwork, questionnaires and interviews with local residents and public actors involved in the regularization process.

From the state to the residents of Essadikia, the transfer of land ownership is ensured, by the municipality. This local authority is the main actor in this regularization project of retrocession.

Despite the different strategies adopted by actors, The results obtained show that the urban recognition process of this quarter is partially successful due to the multiple challenges of the urban integration especially geographical position and the presence of the mountain.

Keywords

Essadikia Quarter, Informal settlements, Laghouat city, Regularization process, Urban recognition.

1. Introduction

The number of cities and metropolitan areas has increased recently. The world is becoming increasingly urban, and the urbanization phenomenon and urban transformation are usually accompanied by significant growth due to the corresponding massive rural exodus.

The urban transformation is an important concept to clarify; the different urban issues are taken for granted under this general term. The urban transformation concept changes in each period (Gülersoy, 2011) and within the different political, social, economic and cultural context.

Depending on planning theory strategies, urban transformation could be reconsidered with three major categories:

- Heritage conservation-based urban transformation, which concerns the most valuable urban areas and historic places preservation.
- Regeneration-based urban transformation: in the areas with economical potentials, intervention in the abandoned industrial spaces.
- (Re) Development based urban transformation: which focuses on urban upgrading and social and economic restructuring on squatter settlements and deteriorated spaces.
- The urban management has become an enormous challenge, especially concerning informal settlements around the world. Due to rising populations, mainly in urban areas, the number of people living in unplanned neighbourhoods is growing (Syagga, 2011).

Informal settlement is the clearest manifestation of the uncontrolled urban process of a city's urban development. Its emergence is due to multiple causes: urban migration, concentration of services and resources within a few large cities, and inadequate housing policies (UN Habitat, 2015). These housing policies have failed to address major issues including the lack of housing, poverty, or even mobility due to conflicts or various disasters, such as climate change, which are forcing many people to endure poor housing and difficult living conditions.

Algeria is not immune to this urban phenomenon. Informal settlements are increasingly common and part of the city landscape. The country is facing a critical housing shortage, and the disfigurement of Algerian urban spaces is easily noticeable.

2. Research methodology

The first part of our research presents the topic and several definitions of informal settlements with special highlight for the Arab urban context and the overall upgrading project strategies adopted in each context.

The second part then it focuses on the Algerian context taking the case of the city of Laghouat city as an example in order to study the effectiveness of the whole process and its details, particularly the role of all the actors in this outline recognition strategy. A mixed research approach used, Primary data were collected through several qualitative and quantitative techniques, observations and interviews with decision-makers, local authorities and inhabitants. Survey was conducted to clarify the most important information and resident opinions about this quarter.

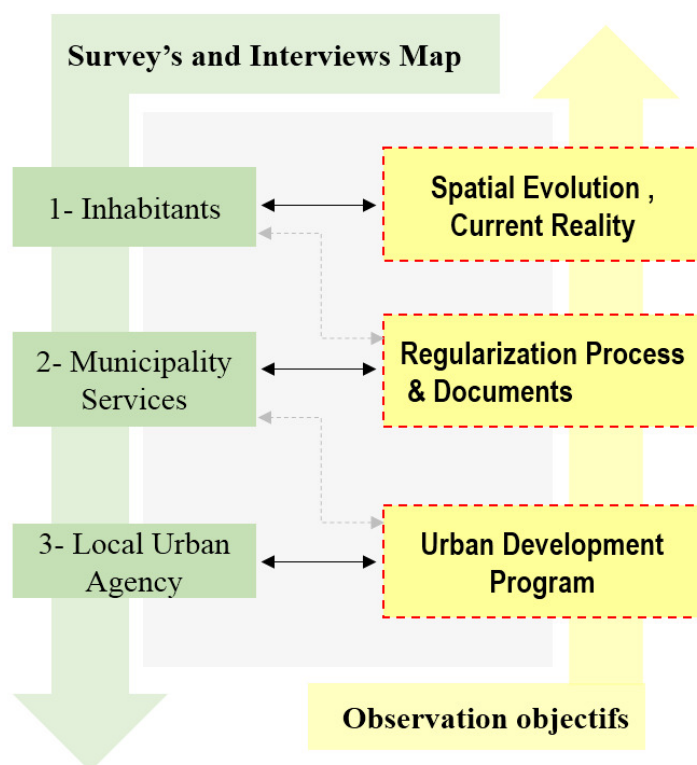


Figure 1. Survey's and interviews map.

In order to obtain a better understanding of the different characters of this quarter we organised a meeting with several actors. The interviews were scheduled with chronological programme (Figure 1).

Started with Inhabitants, where individual interview is extremely important to understand the spatial evolution of quarter and different historic and important moments, 2, the second important interview scheduled with municipality services, communal popular assembly, that's allowed us to get more information from these official authority about the land tenure regularization project, legal documents; its circumstances, and the process obstacles, 3, the other meeting organised in the local urban agency desk where the meeting with architects, urban planner director set to have information about the different programmes and project in the quarter.

In other hand, the survey's objective is to discover the spatial and socio-economic characters and to assess this project of urban recognition and land tenure and upgrading, a questionnaire distributed for more than 150 householders. In the period between November 2019 and March 2020, the questionnaire designed to draw out information, it contains more than 50 questions in four major parts; the first one about the householder (age, work, educational level, wife and family). While the second part is about the house (area, date of construction, age, occupation mode, property and land tenure information). Whereas the third part focused on house and neighbourhood environment (sanitation, sewage, public spaces, and natural environment about mountain... etc.). The last Part is about the neighbourhood relation with city (mobility, basis facilities, transportation links, urban and city belonging).

The lack of cartographic records is a major problem encountered in this study. Therefore, authors elaborated by their own the plans presented and finalised by a field survey.

3. The theoretical framework

One of the problems, of urbanizing countries, that can be mentioned is that of informal settlements (Hasgül, 2016),

which have grown considerably over the last decade (Sanslaus, 2017). A various labels has been created to describe these neighbourhoods, as reported by Chaline Claude, including unregulated settlements or illegal settlements (Hafiane, 1989), spontaneous urbanization (Elkadi, 1987), or precarious neighbourhoods. Irregular settlements have also been used, which are defined as an area or settlement where spatial expansion and occupation are not legal (Durand-Lasserve & Clerc, 1996).

Squatter is another term usually used to indicate the non-legal or informal occupation of buildings or land, and all these definitions refer to the lack of land ownership (Marutlulle, 2017). For this type of settlements, illegal could be different than the informal because the first, could be with land ownership but without authorization for construction, whereas the Informal is lacking to both land ownership and authorization.

The irregularity of these informal settlements takes many forms, such as land irregularity, which is the lack of recognition of land. This means that the residence rights of the occupants are not recognized. In addition, urban irregularity is linked to non-compliance with the rules governing the development of plots, either because the areas concerned do not yet have development plans or because the constructions carried out do not take account of the development plans for the areas concerned. Finally, administrative irregularity is linked to the attitude of the public authorities towards precarious neighbourhoods, as most of these districts are ignored and are not officially recognized.

In 1975, the UN Habitat Secretariat and representatives of 132 nations approved many recommendations for national actions on habitat (Petropoulou, 2007), including public control of land use, support from the construction sector for both formal and informal ones, universal access to sanitation, and the creation of new public facilities.

According to the UN (Habitat from 1992 to 2012), the population of informal settlements in cities of the Global South has increased by approximately 200 million (from 650 million to over

860 million). The proliferation of urban spontaneity, especially habitat, marks the urban landscape of the developing cities.

3.1. Informal settlements in the Arab urban spaces

According to the UN Habitat report, by 2050. Over 70 % of the Arab population will be urban, the rapid urban growth witnessed by most developing countries. Mainly the Arab countries during the second half of the twentieth century, led to economic, social, demographic, and security problems, among others, and one the consequences of that rapid urban growth induce the emergence of informal settlements around the cities.

Urban growth has resulted in the proliferation of informal settlements, and their presence has not been limited only to Arab countries with economic problems, but has also occurred in some Arab countries with high or medium economies.

The phenomenon of informal settlements has emerged in response to multiple factors, including economic, political, demographic and natural conditions, which have led many rural residents and others to migrate to cities and capitals to reside on the periphery without being bound either by land ownership laws or by urban planning systems and regulations.

The location of informal settlements in the region has two different types; the first one about sub-standard structures in central informal settlements, in insecure and unsafe locations or in per-urban areas without access to basic services (UN Habitat). The second one about unplanned urban expansion through the subdivision of agricultural land.

This following information are about the informal settlements in some Arab countries largely inspired from the several UN Habitat reports, the selected countries are Egypt, Syria, Saudi Arabia, Tunisia and Morocco, this choice does not mean that the non-cited Arab countries are immune of this urban phenomenon.

For the Egyptian case; with a population of over 100 million. It is the most populated country in the Arab region.

Informal settlements are called *Ash-wa'yyat*, which literally means spontaneous settlements; The demographic expansion cited is inherently spatial and urban. The increase in informal areas has been widely referred to as an indicator of the process of urbanization of cities all over the country. Indeed, at least 40 % of the urban population lives in informal areas (Hegazy, 2016).

The State established the Informal Neighbourhood Development Fund (ISDF) after the tragic event of 2008 in Manshiyet Nasser, where several citizens died as a result of a landslide. The fund has adopted various projects to identify informal settlements and develop policies for intervention, taking care of residents and relocating them to housing projects in other places. The Fund's policies are based on achieving social justice and ensuring the right of citizens to guarantee safe housing.

Informal settlements in Egypt are classified into four zones according to the geographical specificity of the locations. The ISDF adopted an approach based on controlling and limiting the expansion of these neighbourhoods in spontaneous areas and in spontaneous areas at risk and reported having improved 188 zones in total.

In Syria, the migration to the urban zones started in the second half of the 20th century. It created a demand for housing and real estate in the cities. Most of the formal systems cannot handle the demands for housing, in 2004; informal settlements comprised about 40 % of Damascus' population, or about 1.3 million of the capital's 3 million inhabitants (Clerc, 2013)

According to the UN Habitat, over 70 % of informal settlements were located on private lands, while less than 30 % involved and squatter on public property and *Awqaf* lands. These informal settlements characterize a large part of the neighbourhoods on the outskirts of Syrian cities; and have taken a large part of the urban population growth, (Wazzan, 2012). These areas are an essential element of the urban and per-urban space of the city of Damascus (Kafa, 2013). They are structured around its roads, and are positioned in relation to its production units occupy the agricultural space.

Additionally, In this Syrian case ,we can distinguish two types of a dual land occupation : some settlements had developed on lands squatted by the initial occupants like the case of Mount Qassioun in Damascus, the other settlements were built on privately owned land which, though legally held by its occupants but building was not permitted. This second one found in the Ghouta (Clrec, 2014). Before 2011 two scenarios were possible; the first is the upgrading with regularization and the second one is the urban renewal which consists in the demolition and legal reconstruction strategy.

In Saudi Arabia, the kingdom faced continuous population growth, which also increases the housing demand in the country significantly, the appearance and growth of the unplanned settlements is easily noticed in the two holy cities of Makkah Al-Mukarrama; Al-Medina Al-Munawarra; and for Jeddah and Taif. These cities have the largest concentrations of informal settlements in the country, for example in Makkah there are 66 informal settlements populated with almost 590.000 inhabitant, and Jeddah city has 64 informal settlements populated with over one 1 million people. Several strategies developed by municipalities and government urban development agencies to deal with the informal settlements such as clearance, upgrading and possible conservation. These types depend on urban, social and economic characteristics of the informal settlement zone.

For the Maghreb; in Tunisia; 3/4 of the population live on 10% of the whole territory, due to the migration of farmers to urban centres while informal districts are located near the centres of large cities. After the country gained independence in 1956, the city of Tunis was surrounded by informal settlements, between 1994 and 2014 brought a sharp increase in the urbanization rate of about 68%.

In order to deal with this phenomenon; actions have been taken to improve informal settlements, regulate land tenure and modernize local infrastructure. These actions have been carried out by several factors such as

the Ministry of Infrastructure, the Ministry of Housing and Regional Development, the National Fund for the Improvement and Rehabilitation of Housing and the National Agency for Urban Renewal that has been involved in the improvement of more than 192 neighbourhoods in the country.

For the Moroccan case, the informal settlements had many faces those constructed on agricultural land (Es-sahel, 2011), or located in the deteriorated traditional centres like the historic city of due to a long period of overcrowding from migration and lack of maintenance.

After Morocco's independence, many strategies were developed to reduce the phenomenon of informal settlements, the most important programme launched in 2004, called cities without slums "villes sans bidonvilles (VSB)"; was based not only on the specific urban and territorial context but also on three main strategies: Restructuring, Relocation and Resettlement (UN, 2016). It adopted a participatory strategy involving actors at the national, central and local levels and the population of informal settlements.

Upgrading or informal settlement improvement covers a package of basic services, such as clean water supply and adequate sewage disposal to improve communities' well-being. However, a fundamental aspect of this process is to legalize and regularize land properties (El Menshawya et al, 2011). Informal settlement upgrading strategies and policies are not a completely new idea because many countries as mentioned about Turkey (Bayram, 2015, 2010), South Africa (Hull et al, 2019) and for Afghanistan (Amiri, 2018), Egypt (Safey Eldeen, 2014), have dealt with this phenomenon to stop informal urbanization since the 1950s (Khaliifa, 2015). Studies approach informal settlements by either focusing on the household and settlement level or discussing municipalities' policy and governance strategies (Saharan, 2018).

Upgrading actions are frequently conducted by community organizations with local government intervention (Nazire et al, 2016). Governments in developing countries are implementing land reform (Kyessi, 2010).

Although most Arab countries are seeking, through a set of laws, legal tools and administrative devices, to reduce the phenomenon of illegal neighbourhoods, the Arab city is still unable to control this urban problem. The exacerbation of social problems and poverty, as well as unstable security, political and economic conditions, have resulted in the presence of these informal settlements.

3.2. The squatter and informal settlements in the Algerian urban context

The organization of Algerian cities is characterized by a both land use and spatial extension, on the one hand, local authorities through its tools of action in the formal urban fabric and on the other hand, “popular spontaneity” (Belmallem-Chouguiat, 2011). With its own rules, generating informal settlements built on the fringes of formal and official development. In Algerian cities, the massive migration of rural residents to urban centres, the rapid demographic growth, and the incapacity of public authorities to propose decent housing have led to the emergence of informal urban settlements (Hafsi & Chabi, 2019).

The informal settlements are not only an urban phenomenon in Algerian big cities. Algiers as mentioned (Benalia, 2015; Semmoud, 2014), Constantine, Oran, Annaba (Serrab, 2006), Setif (Difafat, 2019). It's also present in the medium and small Saharan cities in Biskra City (Selatnia & Farhi, 2017); Bousaada city (Araba & Mazouz, 2018); Bechar city (Hamidi, 2011) and around southern industrial cities (Sofrani et al, 2018).

Historically, in the Algerian city, the emergence of informal districts dates back to the colonial period (Naceur, 2013), the expansion was divided into a Franco-European section planned according to urban rules and administrative tools and another Algerian natives section of informal districts. This presence of spatial divisions, which led to the emergence of segregated social differences, was the characteristic of the colonial city.

In order to trace the evolution of these informal settlements in Algerian cities after independence, it should be noted that during the socialist agrarian reform in the 1970s, many private land-

owners subdivided their agricultural land into small plots for sale as urbanized lots (Naceur & Belmessous, 2018).

From 1985 onwards, the Algerian city suffered from an acute housing shortage. The deficit was about 1 million dwellings; in response, the authorities implemented development programs in the informal settlements of most cities, which improved such elements as sidewalks, sewers, sanitation and street lighting (Naceur, 2018). In the 1990s, the lack of security brought a new wave of migration to the city in seeking safety and better living conditions, which led the informal settlements around Algerian cities to become increasingly present.

After the year 2000, a new housing policy was introduced, financial aid to help the middle classes find housing, financial aid for rural housing was introduced, and several public agencies were set up, such as the Local Urban Management and Regulation Agencies and the Agency for the Improvement and Development of Housing (AADL), which oversees action to reduce precarious housing.

Informal housing reflects the effectiveness of the housing policy, in Algerian cities, housing production strategy shows the failure of the authorities in managing informal urbanization, social and spatial issues indicate their lack of control of this phenomenon (Araba, 2012). Indeed, the state has shown a low capacity to take charge of housing for poor families. The forms of regulation produced for informal neighbourhoods are tolerated and the role of local authorities has been limited to systematic regularisations.

In addition, one of the biggest challenges in this quarters is the land tenure regularisation which is important in the recognition process.

4. Geographical and historical context

As Saharan city with difficult living environment (Benslimane & Biara, 2019), Laghouat is considered a central gateway to southern Algeria; it is located 400 km south of Algiers, with a typical Saharan Morphology. Laghouat, like most Saharan cities, experienced four historical urbanization periods (Belguidoum, 2002), presented as follows:

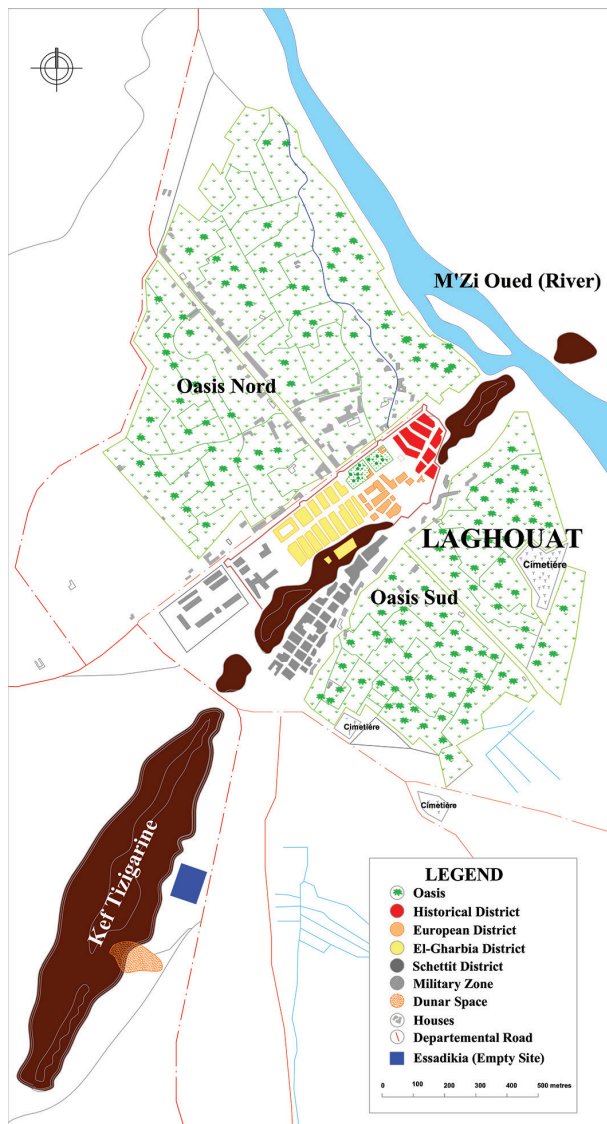


Figure 2. Laghouat city before 1930.

4.1. The ksar, the traditional town

The heart of the settlement is indeed a group of traditional houses. It has a specific organization that maintains complex causal relationships (Kadri et al., 2019), and it is loaded with signs representing the marks of a singular socio-cultural context (Layachi, 2016). For defensive reasons, the ksar was built on rocky soils and high ground, as the Laghouat Ksar see Figure 1.

4.2. The colonial city

In a new extension or on existing fabrics. The French military completely changed the urban structure of the city by introducing the urban grid on the rubble of the ksar (Benarfa, 2018). As for the creation of neighbourhoods, whose geometry is necessarily regular

and the pillars are rectangular, as can be seen in the European neighbourhood and El-Gharbia quarter in the same city of Laghouat.

4.3. Informal settlement neighbourhoods

These neighbourhoods are the product of popular emanation (Déboullet, 1994). They spontaneously appeared before independence; quarters were created because of the housing crisis or the massive sedentarisation of nomads in the Saharan city. These spontaneous settlements also develop in other forms, such as precarious constructions and through the transformation of communal housing and construction without any authorization.

4.4. Regular urbanization zones

As a result of previous planning, these areas represent government-programmed operations in urban spaces as an example of the ZHUN (New Urban Habitat Area) Project with proper construction equipment, planning, and authorization.

5. Laghouat city urban evolution and spatial fragmentation

Focusing on the general urban development of the city of Laghouat, we can confirm that the city is characterized by a variety of urban compositions. The city is divided by the mountain, which serves as the backbone for districts which have enclosed oases on both sides.

The Southern Oases are mainly old residential areas, where some administrative and commercial activities are present, but where public transport is lacking (Othmani Marabout Bouchareb, 2019). The difficulty of mobility is related to the nature of traditional urbanization, such as the Shettit, Ksar Bezaima and Essadikia neighbourhoods.

The northern oases are the largest area of the city with various administrative, service and commercial activities well distributed and supplied by the transport means, such as the Mâmourah, l'Mqam and Wiâm districts. In addition to the diversity of individual and mass housing, its population has increased due to the im-

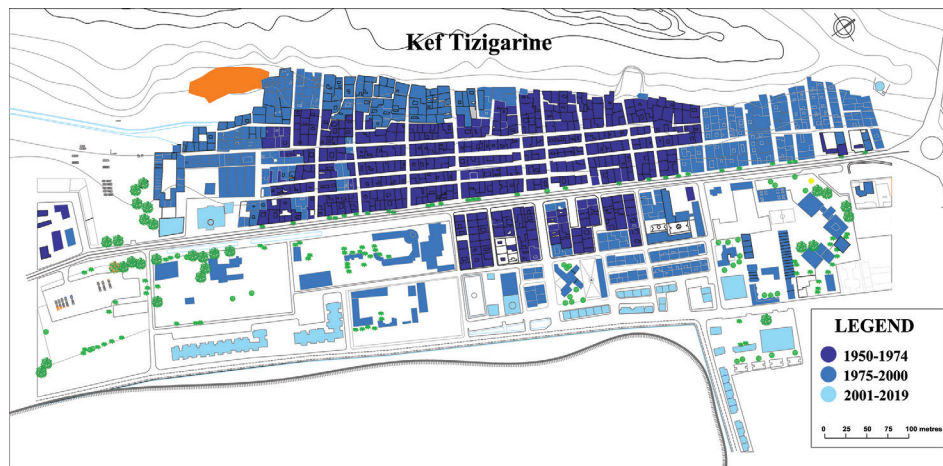


Figure 3. Chronicle of spatial urban evolution.

migration of some inhabitants of the southern oases.

This division of the city has resulted in the creation of two urban fragments, which has brought with it certain problems of social and urban discrimination in the city, especially the number of inhabitants due to increased migration (Rezzoug, 2013).

6. About the Essadikia Quarter

As an unplanned area, Essadikia is one of the most populated quarters of Laghouat city. It is located at the south-western end of the city, at the foot of the Tizigarine kef mountain (Dogs' Rock) and the river of Oued M'saad on the south-eastern side, and the mountain that surrounds this district increases its spatial exclusion from the Centre and the rest of the city.

These two natural barriers such as the mountain and the river; have largely guided the formation of informal settlements. This site is always considered as dangerous due to the landslide and a very large concentrated dune in the middle of this mountain.

6.1. Chronicle of spatial evolution of Essadikia

For Laghouat, as for other Saharan cities, the emergence of auto-constructed houses predates independence (Maachou et al, 2018); the neighbourhood's first constructed houses is due to the displacement of 40 impoverished families living in the outskirts of the city of Laghouat; whose French administrators quickly drew up the first small areas in the district without building there.

The inhabitants of the quarter can be classified according to geographical origins from around the city and the date of settlement: the first are poor displaced families, followed by a few temporary residents living in the Schettit district, as well as settled nomads.

After independence, a wave of sedentarization increased the population of the district, while the sedentary nomads increased the already high population density of the southern districts. Very rudimentary buildings were constructed without basic hygiene standards or an urbanization plan (Pettit, 1976).

7. Urban recognition process strategy

Land is considered as the main support of formal or informal urban extension, informal settlements/ squatter occupy illegally these lands to be then a part of the city, by occupying large spaces of private or public property.

The Algerian governments adopted one of two these solutions cancellation or recognition (Hafsi & Chabi, 2019). It depends usually on the tensions and the relationship between state and society (Semmoud, 2015).

The legal approach and land tenure regularization shows that many different policies laws and texts used to regulate land tenure, such as the law no.81 of February 7th 1981 on transfer of state property where text explain new measures of land acquisition which is significant for the regularization of informal settlements.

It's important to clarify that the tendency of local authorities intervention shows a tolerate attitude. It combines both of land titling and the physical

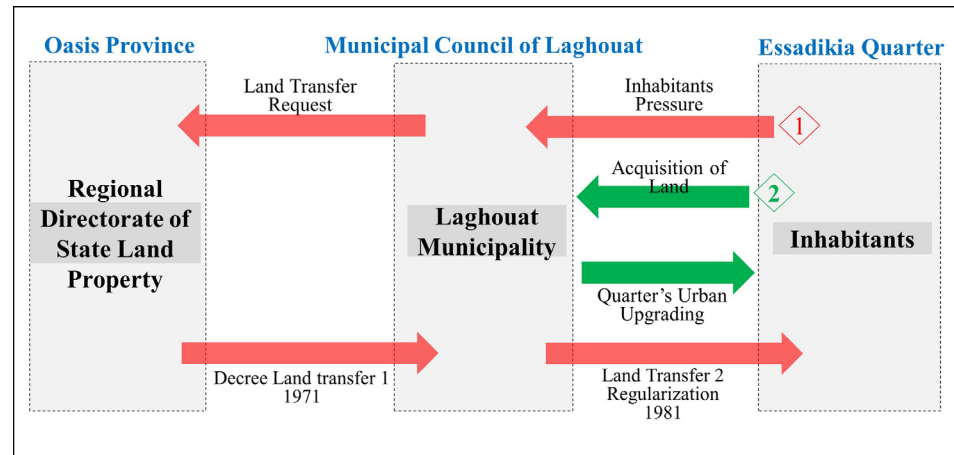


Figure 4. Stakeholders strategy.

upgrading. This policy aims to legalize informally occupied land through legal titling and administrative strategic tools (Okyerere et al, 2016). The Algerian authorities advocate finding radical solutions to this phenomenon of spontaneous urbanization, but the rhetoric and practices lead to the recognition of the “fait accompli” through the regularization of illegal cities (Meskalji, 1994). Thus, recognition is understood as the overall strategy for the urban integration of these illegal neighbourhoods into the city.

In this context, Essadikia quarter was by squatting a public property; the municipality faces a problem in managing these informal practices and operate the land tenure regularization.

7.1. Stakeholder process and strategy

A long process involving several stakeholders, explained in the (Figure 3), has been set up to implement the recognition strategy led by the local authorities and put an end to the problem of this popular but unregulated neighbourhood. First, the neighbourhood needs to be recognized and defined. The inhabitants of this district also lobbied to improve their living conditions.

In response to the first demands of the inhabitants and their growing mobilization; and according to the deliberation document of the Laghouat municipality, dated 31 October 1969, the President, described the situation of this district of Essadikia (Ksar Ferroudj) as an entity without equipment, a drinking water, sanitation system, electricity, and its alleyways are also without equipment, making the life of its inhabitants very difficult.

The municipality cannot publicly consider improvements until the proper status of legal situation of housing on these public property lands is resolved. The relationship between the property status and any future land use should be set.

For this reason, a request has been made by Laghouat Municipality to the Regional Domain Directorate (ownership of the public property land) to transfer the land concerned to the inhabitants with a price corresponding to the financial situation of the inhabitants.

In reply to the request by the local municipality, the transfer was authorized by the Domain Directorate; for the benefit of the municipality of Laghouat; for land parcels where houses have already been built. This transfer was granted for the price of 150.200,00 Da. (30000.00USD)

The transfer of land to the municipality of Laghouat allowed a second step of the land regularization process. The members of the local community accepted the returning the acquired plots of land to their occupants.

7.2. The specifications of land tenure regularisation

The schedule of conditions for the transfer of ownership was already drawn up; and approved by the Province/department of Oasis.

The administrative deed of sale was carried out as part of a plan to manage properly this procedure between the inhabitants and the municipality in order to avoid conflicts, among the elements of this plan many specifications are set, we can mention as an example:

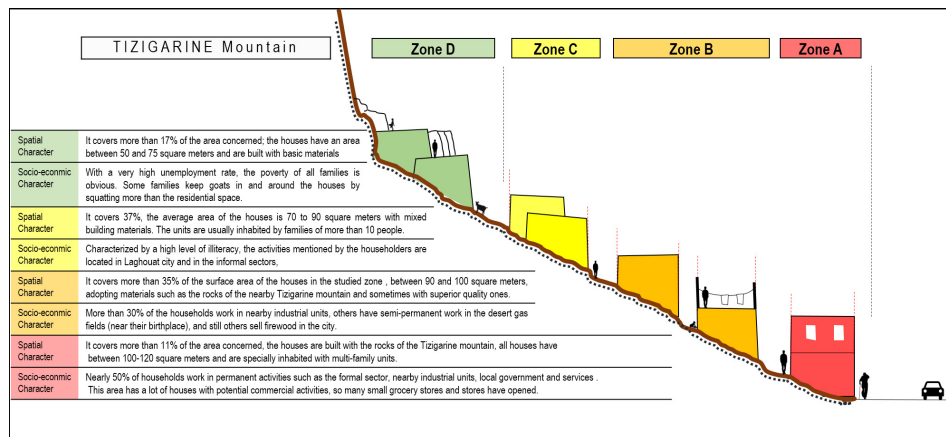


Figure 5. Spatial and socio-economic character of zones.

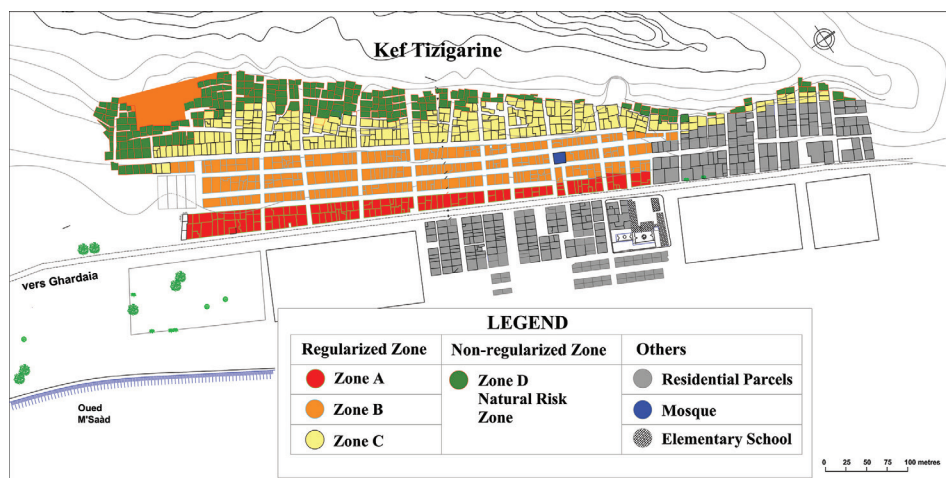


Figure 6. Regularization zones.

The buyer must be familiar with the property being acquired. If the surface area of the sold plot does not correspond to that indicated in the deed of sale, the difference will not lead to the resolution of the sale but only to an increase or decrease in the amount of the sale price.

During one month, the parties will have the right to have the land measured at the exclusive expense of the purchaser. They must accept any passive, apparent, hidden, continuous or de facto servitude that may be affected by the sale of the land, except to defend themselves and to take advantage of any active servitude, at their own risk and peril, without recourse to the municipality. We find the presentation of the spatial characters and the socio-economic by our survey.

The purchaser will not be able to change or modify, rent, or exchange the land or construction built for a period of 50 years except in cases of compelling circumstances and after the express agreement of the local authorities' administration.

7.3. The division of the quarter into zones

Division of the district into zones: A commission comprising several departments was appointed to survey, identify and draw up a general construction plan for the occupied areas, roads and a division into four zones (Figure 6).

The logic adopted for the zoning is the result of a topographical reading of the site, which is characterized by a significant gradient of zones:

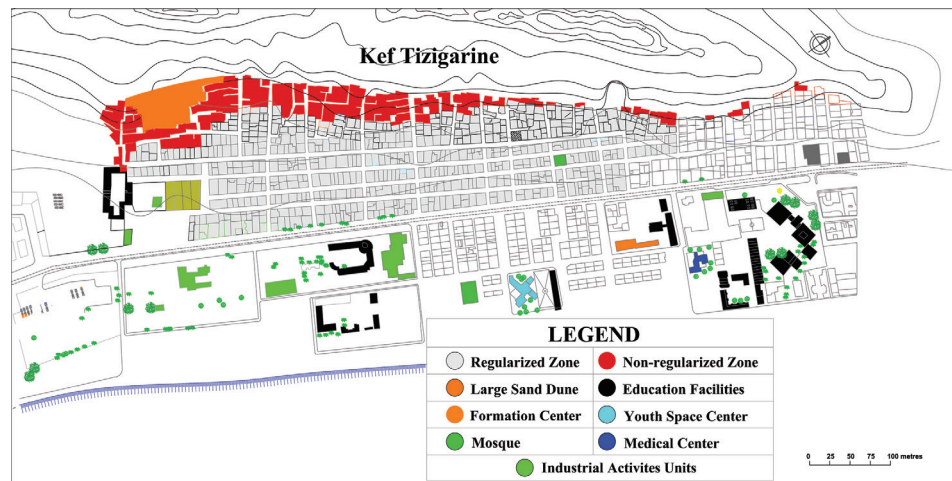
Zone A: this first zone concerns the overall façade of the district, which is generally flat and does not present any topographical disadvantages. In addition, this zone is located along the main road in the district and in the city, as it connects with the National Road 1

Zone B: This zone is the lower-middle zone with a large number of houses; it has a slight slope with more than 200 houses. (Figure 6)

Zone C: It is the upper middle zone,

Table 1. Lots retrocession and prices.

Zone/ Price	First Land Transfer Price M ²	Land Transfer Price After Revision M ²	Concerned Dwelling Number	Area M ²	Land Transfer Price DA	Land Transfer Price USD (1981 Rate)
Zone A	30.00	80.00	77	16200	129600,00	29808,00
Zone B	20.00	60.00	257	35000	210000,00	48300,00
Zone C	15.00	30.00	270	28200	84600,00	19458,00
Total	65.00	170.00	604	79400	424200,00	97566,00
Zone D	Non- evaluated (risk zone)		(120)	15000	/	

*Figure 7. Urban improvement in Essadikia Quarter.*

characterized by over 200 houses and a high slope, which makes several houses difficult to access.

Zone D: This is the upper zone of the quarter, situated on the edge and along the slopes of the surrounding mountain (Kef Tizigarine). A very steep slope presents a serious risk for landslide and the danger of a very large dune.

7.4. The land transfer price

The committee proposed a zoning of the quarter; and also the transfer prices per zone. After the relevant services (water, electricity, public works, etc.) have estimated the road work to be performed. Due to the state of the economy, as well as through the recommendations of the commission, prices were revised and each zone's price differs from the others, depending on its specific characteristics and geographical constraints.

Except for zone D; The local authority decided to demolish all houses after their occupants will be transferred because of their instability and the danger they present.

This decision could not be realized for several reasons, particularly the rejection by the residents of this dangerous zone.

Table 1 shows the figures obtained after the start of the retrocession regularization procedure and the sale of the Essadikia lots.

8. Urban development in the quarter

Prior to these procedures intended by the municipality, the neighbourhood had only a mosque and a Koranic madrasah (school) built and financed entirely by the inhabitants of the neighbourhood, as well as a school. The district had a population of more than 8,500 in 1985 and lacked many facilities.

The process of land retrocession took a few years due to the poverty of most of the quarter's inhabitants and the length of administrative procedures. The amount of the retrocession recovered by the communal receiver (person or entity financially responsible) was allocated to the equipment and investment section of the com-

mune's municipality budget in accordance with the provisions of the communal law code. In particular, it financed the construction of public facilities serving the Essadikia quarter.

Between 1983 and 2000, this neighbourhood underwent a significant urban improvement. The district was chosen for the location of several annexes and industrial units, which were direct sources of employment for the inhabitants. At the urban level, several basic and support facilities, including schools (three primary schools, two elementary schools and a high school), health care (district polyclinic), administrative (town hall, insurance funds, women's training centre, youth centres, etc.), and religious facilities, including two mosques, were built (Figure 7).

The improvement of the road infrastructure affected the main street of the Essadikia quarter, which then contained commercial premises managed by the inhabitants, as well as the urban transport network lines connecting it to other areas of Laghouat city.

9. Urban recognition process finding and evaluation

The process shows the different strategies followed by both residents and local authorities to increase or stop this phenomenon, which can be identified in five important periods as shown in Figure 8.

9.1. Informal start: 1950-1965

Migration to Laghouat city and the lack of residential options led to the rise of rapid and unplanned expansion. Inhabitants built houses by day or night without any consideration of urban planning or hygiene, thus creating urban irregularities.

9.2. Informal expansion: 1965-1980

This second period is characterized by the second major influx of new residents, mostly nomads from the Laghouat region. They built hundreds of houses in a short period using simple materials. In response to this rapid growth, the first step taken by the local authorities was to control these houses and their inhabitants. As a result, numerous ordinances were issued to align

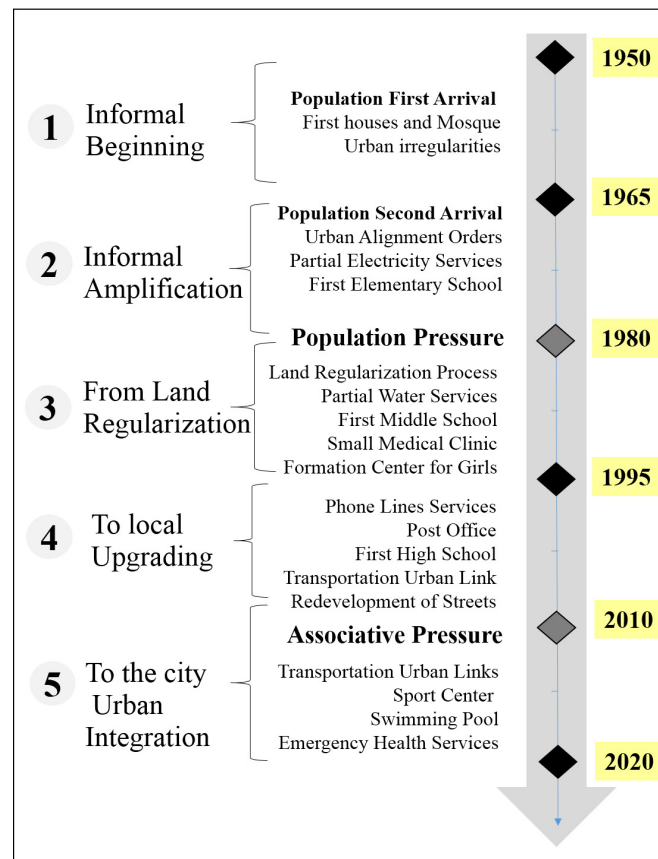


Figure 8. Urban recognition process.

certain plots of land and ensure urban regularity; this period was completed by the partial provision of the electricity services.

9.3. Land regularization: 1980-1995

The third period could be considered the most significant. After the urban regularizations, the demographic pressure increased, and the local authorities started the operational process of land regularization of almost the whole neighbourhood. After the presentation of economic and financial studies on the process, which took into account the topography of the neighbourhood and the financial situation of the residents, the officials finally promulgated their Land Rights Law.

9.4. Urban upgrading of the quarter: 1995-2010

After land regularization, the local authorities started urban upgrading. streets and roads paved and aligned, also several important facilities were built. In addition, many services were activated, such as public transport options and telephone lines.

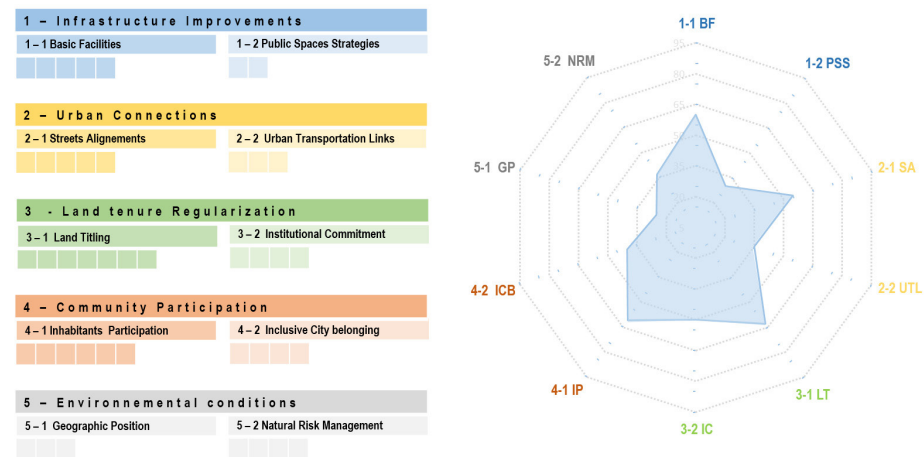


Figure 9. Process evaluation profile.

9.5. Urban Integration Project: 2010 to present

In this last period, the quarter is considered important for the whole city. As a result, numerous transport lines have been developed to connect it to other urban areas, and several meetings with local authorities organized, to gain new project facilities including a swimming pool and a sports centre, have been pressing for greater social and urban integration.

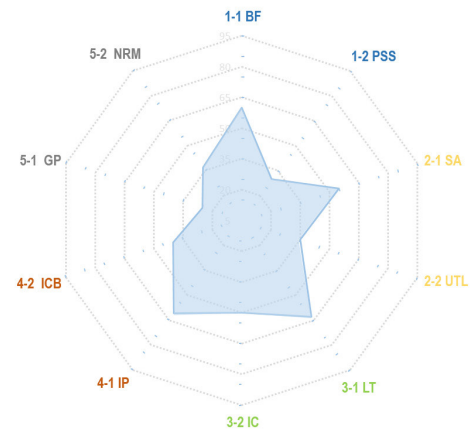
10. Process findings and evaluation

In this case, the (Re) Development based urban transformation is clearly adopted in this quarter, and, In order to assess the process.

we identified through different experiences, a strategy to get the evaluation through selecting and adjusting a set of indicators in five groups, such as infrastructure improvements, urban connections, land tenure regularization, community participation and environmental conditions.

The different interviews, observation in site and the questionnaire distributed led us to collect data information from residents, and analyse it by the evaluation profile (Figure 9). it presents for some indicators such as “basic facilities”, “street alignments”, “land titling” and “inhabitants participations” results with middle performance.

Some indicators In the other side, such as “public space strategies”, “urban transportation links”, “inclusive city belonging” and “geographic situation” are even under the average of performance, these indicators affecting the process evaluation performance.



Despite the different basic facilities constructed, land tenure regularisation; Obstacles detected such as the long procedure of registration, the geographical position of the mountain situation make the physical upgrading difficult, and make also belonging to the city a big challenge to the local authorities and residents.

For the first group of indicators, more redirection is needed to better performance, and for the second a deep reorientation must be operated for better results and successful complete recognition process.

11. Conclusion

This article investigates one of the topics widely debated by researchers on the fate of informal settlements, urban legitimacy and the right to the city (Lefebvre, 1968), by showing the experience of informal settlements.

A reality that characterizes the cities of the Maghreb (Semmoud, 1995), it highlights an unplanned district of the city of Laghouat, as well as the process of urban recognition through the strategies followed by the various actors in this city.

Several difficulties that hindered the start of this process, such as the attempts to stop the escalation of informal settlements on the mountain of Tizigarine; satisfy the demands for facilities and, drinking water supply absent for a long time in this informal quarter, important changes were finally implemented as part of the land tenure regularization and upgrading whole process.

Findings show that the gradual integration of this type of informal settlement

is not too problematic (Hassan Farouk, 2012), and although difficult, it does not appear to be an impossible task. For decision-makers, land tenure regularization, the restructuring and upgrading of neighbourhoods (roads, networks, social and cultural facilities), and the participatory approach of the inhabitants have created a way of thinking, so that the solution can be sufficient and partially successful.

This strategy adopted by stakeholders has thus made this quarter, after all, an almost integrated part of the formal city, which is now included in the city's urban plans and official planning documents. The importance of this dense quarter is growing and is gaining an uneven reputation, especially for its political culture. It presents itself as an example of collective resistance to prove a kind of urban legitimacy in the city through land security, spatial restructuring and overall urban integration.

Acknowledgments

We would like to thank the Directorate General of Scientific Research and Technological Development (DGRST, in Algeria) for its support. We would like to express our gratitude to the PU-VIT laboratory (University of Ferhat Abbas Setif 1, Algeria) for its invaluable assistance for the elaboration of this manuscript.

References

- Amiri, B.A., Lukumwena, N. (2018). An overview of informal settlement upgrading strategies in Kabul city and the need for an integrated multi-sector upgrading model. *Current Urban Studies*, 6 (3), 348-365. <https://doi.org/10.4236/cus.2018.63019>
- Araba, M., & Mazouz, S. (2018). Apports de la syntaxe spatiale à la vérification de l'intégration d'un quartier d'habitat spontané dans le système urbain : Cas de Maïtar à Bou-Saâda. *Bulletin de la Société Royale des Sciences de Liège*, 87, 121-135. DOI: 10.25518/0037-9565.8234
- Araba, M. (2012). *Les quartiers périphériques spontanés entre les opérations d'intégration et les forces d'exclusion Cas d'étude : Quartier de "Maïtar" à Bou-Saada*. Magister Dissertation Thesis, university of Biskra, Biskra.
- Bayram, U. (2015). Upgrading of illegal settlements in Turkey; The case of north Ankara entrance urban regeneration project. *Habitat International*, 49, 157-164. <https://doi.org/10.1016/j.habitatint.2015.05.026>
- Bayram, U., Çete, M. & Palancıoglu, M. (2010). Legalizing and upgrading illegal settlements in Turkey. *Habitat International*, 34 (2), 204-209. <https://doi.org/10.1016/j.habitatint.2009.09.004>
- Belguidoum, S. (2002). Urbanisation et urbanité au Sahara. *Méditerranée*, 3-4, 53-64.
- Belmallem - Chouguiat, S. (2011). *Marginalité socio – spatiale, violence et sentiment d'insécurité dans les quartiers périphériques de Constantine : Cas de Boudraa Salah et d'El Gammass*, Doctoral Dissertation Thesis, University of Constantine. Constantine.
- Benalia, F. (2015). *La fabrique d'un quartier informel : de la marginalisation à l'intégration urbaine, Cherarba, une véritable polarité économique, puissant facteur d'intégration*. Doctoral Dissertation Thesis, university of François RABELAIS of Tours. Tours.
- Benarfa, K., Boudjemaa, K. & Alkama, D. (2018). Rôle de la réglementation urbaine dans la préservation de l'oasis de Laghouat. *Courrier du savoir*, 26, 175-186.
- Benslimane, N., Biara, R. (2019). Collective ingenuity in the construction of the popular home: The challenge of the know-how in Sahara. *ITU A|Z*, 16(1), 67-81.
- Clerc, V. (2014). Informal settlements in the Syrian conflict: urban planning as a weapon. *Built Environment*, 40 (1), 34-51.
- Clerc, V. (2013). Les quartiers informels à l'épreuve de la crise en Syrie : Une inflexion inachevée des politiques d'habitat et d'urbanisme, Quartiers informels d'un monde arabe en transition, Réflexions et perspectives pour l'action urbaine. Agence française de développement. LAATS, Paris.
- Deboulet, A. (1994). *Vers un urbanisme d'émanation populaire : Compétences et réalisations des citadins : L'exemple du Caire*. Unpublished Doctoral Dissertation Thesis, l'université de Paris-Nord.

- Diakat, A. (2019). *Quelles stratégies urbaines pour l'Algérie ?*. Doctoral Dissertation Thesis, University of Setif. Setif.
- Durand-Lasserve, A., Clerc, V. (1996). Regularization and integration of irregular settlements: lessons from experience. UNDP, UN-Habitat, World Bank, Urban Management Program (UMP), Working Paper n°6, 113p, Urban Management and Land.
- El Kadi, G. (1987). *L'urbanisation spontanée au Caire*. Tours ; Paris : UR-BAMA, O.R.S.T.O.M.
- El Menshawya, A., Alya, S., Salmana, A.M. (2011). Sustainable upgrading of informal settlements in the developing world, case study: Ezzbet Abd El Meniem Riyadh Alexandria, Egypt. *Procedia engineering*, 11, 168-177. <https://doi.org/10.1016/j.proeng.2011.11.2001>
- El-Shorbagy, A. M., El-Shafie, M. (2014). An assessment study of unplanned settlements case study: al-ruwais district, jeddah, saudi. *European Scientific Journal*, 10 (32), 266-277.7.
- Essahel, H. (2011). *Politiques de réhabilitation des quartiers non réglementaires au Maroc et mobilisation(s) des habitants. Etudes de cas dans l'agglomération de Rabat (Rabat, Témara, Skhirat)*. Doctoral Dissertation Thesis, university of François RABELAIS of Tours, Tours.
- Farouk Hassan, G. (2012). Regeneration as an approach for the development of informal settlements in Cairo metropolitan. *Alexandria Engineering Journal*, 51 (3), 229-239. <https://doi.org/10.1016/j.aej.2012.02.003>
- Hafiane, A. (1989). *Les Défis à l'urbanisme : L'exemple de l'habitat illégal à Constantine*, Alger : OPU. 290.
- Hafsi, F.Z., Chabi, N. (2019). Land tenure regularisation for sustainable land use in informal urban settlements: Case study of Lalaouia and Mesguiche, Souk Ahras, Algeria. *Town and Regional Planning*, 75, 17-30. <http://dx.doi.org/10.18820/2415-0495/trp75i1.4>
- Hamidi, A. (2011). L'évolution d'un quartier périphérique en centre d'animation : Debda (Bechar) . *Insaniyat*, 51- 52, 185-196.
- Hasgöl, E. (2016). Incremental housing: A participation process solution for informal housing. *ITU A|Z*, 13(1), 15-27.
- Hegazy, I.R. (2016). Informal settlement upgrading policies in Egypt: Towards improvement in the upgrading process. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, 9(3), 254-275. DOI: 10.1080/17549175.2015.1009845).
- Hull, S., Babalola, K. & Whittal, J. (2019). Theories of Land Reform and Their Impact on Land Reform Success in Southern Africa. *Land*, 8 (11), 172 [doi:10.3390/land8110172](https://doi.org/10.3390/land8110172)
- Gülersoy, N.Z., Gürlü, E. (2011). Conceptual Challenges on urban transformation. *ITU A|Z*, 08(1), 10-24.
- Kadri, S., Kacemi, M. & Biara, R. (2019). The boundaries of streets across time, in Saharan space. *ITU A|Z*, 16(02), 19-23.
- Kafa, M. (2013). *L'habitat informel en Syrie le cas de Damas*. Doctoral Dissertation Thesis, university of Lorraine. Lorraine.
- Khalifa, M.A. (2015). Evolution of Informal Settlements upgrading strategies in Egypt: From negligence to participatory development. *Ain Shams Engineering Journal*, 6(04), 1151-1159. <https://doi.org/10.1016/j.asej.2015.04.008>
- Kyessi, A.G., Alphonse, Y. (2010). Enhancing security of land tenure in informal settlements the case of wat-human trust in hannanasif settlement, Dar es-Salam, Tanzania. *UATFITI*, 8 (1), 87-104
- Layachi, A. (2016). The archetypes of landscape and sustainable design in the ksar of Kenadsa, *ITU A|Z*, 13(03), 79-91.
- Lefebvre, H. (1968). *Le Droit à la ville*. Paris : Anthropos, 164p.
- Maachou, H.M., Belouadi, L. & Trache, S.M. (2018). Difficultés d'intégration d'un quartier spontané dans une ville saharienne : Le cas de Bni Ouskout à Adrar. *Les Cahiers d'EMAM*, 30. <https://doi.org/10.4000/emam.1460>
- Marutlulle, N.K. (2017). Causes of informal settlements in Ekurhuleni Metropolitan Municipality: An exploration. *Africa's Public Service Delivery and Performance Review* 5(1), a131. <https://doi.org/10.4102/apsdpr.v5i1.131>
- Meskaldji, G. (1994). L'habitat spontané en Algérie : cas de Constantine. *Travaux de l'Institut Géographique de Reims*, 85-86. 83-91. <https://doi.org/10.3406/tigr.1994.1306>
- Naceur, F., Belmessous, F. (2018). Informal settlement dwellers in Algeria: How local initiatives and practices contribute to improving their living con-

ditions . “Wise cities” in the Mediterranean, Paris, Sciences Po, France.

Naceur, F. (2013). Impact of urban upgrading on perceptions of safety in informal settlements : Case study of Bouakal, Batna. *Frontiers of Architectural Research* , 2 (4), 400-408. <https://doi.org/10.1016/j.foar.2013.06.004>

Nassa D.M., Elsayed H.G. (2017). From informal settlements to sustainable communities. *Alexandria Engineering Journal*, 57 (4), 2367-2376. <https://doi.org/10.1016/j.aej.2017.09.004>

Nazire, H., Kita, M., Okyere, S. A., & Matsubara, S. (2016). Effects of informal settlement upgrading in Kabul city, Afghanistan: A Case study of Afshar area. *Current Urban Studies*, 4 (4) , 476-494. <http://dx.doi.org/10.4236/cus.2016.44031>

Okyere, S. A., Aramburu, K., Kita, M., & Nazire, H. (2016). COFOPRI's land regularisation program in Saul Cantoral informal settlement: process, results and the way forward. *Current Urban Studies*, 4(1) , 53-68.

Othmani Marabout Bouchareb, Z. (2019). *Introduction de nouveaux modes de composition urbaine.le renouvellement urbain à Laghouat*, Maison d'édition européenne.

Petropoulou, C. (2007). Quartiers d'origine spontanée. *Revue d'Aménagement PRAXIS*, 1.

Pettit, O. (1976). *Laghouat, essai d'histoire sociale*, Paris : collège de France.

Rezzoug, A. (2013). *Laghouat : De l'oasis à la fabrication durable de la métropole*. Unpublished Doctoral Dissertation Thesis, University of Paris 10, Paris.

Safey eldeen, H. (2014). Informal areas : Shortcomings and new perspectives in post-graduate programmes. *Égypte/Monde arabe*, 3(11), 283-315. <https://doi.org/10.4000/ema.3353>

Saharan, T. (2018). *Slum and the City: Exploring relations of informal settlements comparatively in Chennai, India and Durban, South Africa*, Docotral Dissertation Thesis, University of Amsterdam. Amsterdam.

Selatnia, K., Farhi, A. (2017). Une typologie pour les quartiers informels a biskra. *Courrier du Savoir* , 22, 35-40.

Semmoud , N. (2015). *Gouverner les urbanisations informelles ou la “ gou-*

vernance ” en question. Cas des villes maghrébines. Acteurs et pouvoirs dans les villes du Maghreb et du Moyen-Orient, Paris : KARTHALA.

Semmoud, N. (2014). Marginalisation et informalité : D'une domination à une autre. Cherarba au Sud-Est de la périphérie d'Alger. *Annales de géographie*, 699(5), 1146-1167. doi:10.3917/ag.699.1146.

Serrab – Moussannef, C. (2006). *Résorption de l'habitat précaire dans l'agglomération de Annaba (Algérie). Intégration ou épreuve de l'exclusion ?*. Doctoral Dissertation Thesis, university of Constantine. Constantine.

Sofrani, K., Chabou Othmani, M., & Dubois-Maury, J. (2019). La maîtrise d'urbanisation autour du champ gazier de Hassi R'mel: Algérie, entre réalité et action publique. *Cinq Continents*, 9(19), 46-72.

Stanslaus, M. M., Peter, E. M., & Ramadhan, A. M. (2017). The challenges of development control of informal settlements Inarusha city: A case of ngaranaro ward. *international journal of innovation and scientific research*, 32 (1), 166-172.

Syagga, P. (2011). Land tenure in slum upgrading projects. *Les cahiers d'Afrique de l'Est*, 103-113.

UN Habitat. (2020). Informal settlement in the Arab region: “Towards Arab Cities without informal settlements” analysis and prospects. Housing and Building Research Centre, Cairo, Egypt.

UN Habitat. (2015). Informal settlements, Habitat III Issue papers, <https://unhabitat.org/habitat-iii-issue-papers-22-informal-settlements-papers>, New York.

UN Habitat. (2003). The challenge of slums: A New Global Report. United Nations Human Settlements Program, New York.

United Nations. (2016). Slum upgrading in the Arab region, Beirut.

Wazzan, K. (2012). *La production de la périphérie Nord de Lattaquié (Syrie) stratégies d'acteurs et formes produites : Mécanismes généraux et application au cas des quartiers non réglementaires de DAATOUR et de BISNADA*. Doctoral Dissertation Thesis, university of François RABELAIS of Tours. Tours.