

October 2018

OUZAI ROAD SLUMSAN EXPLORATORY STUDY FOR SOCIAL AND ENVIRONMENTAL PROBLEMS

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Recommended Citation

AZAB, NADER Associate Professor, Faculty of Architecture - Design & Built Environment,; JALAL, KAREEM Assistant Professor, Faculty of Architecture - Design & Built Environment,; and OMAR, OSAMA Assistant Professor, Faculty of Architecture - Design & Built Environment (2018) "OUZAI ROAD SLUMSAN EXPLORATORY STUDY FOR SOCIAL AND ENVIRONMENTAL PROBLEMS," *BAU Journal - Health and Wellbeing*: Vol. 1 : Iss. 3 , Article 21.

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Abstract

The notion of health and wellbeing issues in urban areas has triggered genuine advances in research and applications striving to achieve valid sustainable outcomes for living environments. According to the 2017 UN Climate Change Conference held in Bonn, Germany, the world is becoming attentive to depending on sustainable policies and practices which are supported in several international environmental agreements and conferences that were initially held to tackle the issue of global warming, economy crisis and social equity. This research addresses one of the most compelling problems in Lebanon; informal settlements and the vice of sustainability and related health and wellbeing issues. The research focuses on Al-Ouzai area as a living example of all disintegrated realities in a residential dense settlement. This is an exploratory study that utilizes available secondary data and some primary ones based on observations done in 2017/18. The aim is to furnish a strong base for a future in-depth investigation in the area that is planned to take place in the following year through NCRS. The research utilizes a comprehensive SWOT analysis approach that covers the basic elements of sustainable development thus furnishing basis for future research and planning intervention in the area.

Keywords

Urban Planning, Health and Wellbeing, Informal settlements, Slums, Sustainability

OUZAI ROAD SLUMS

AN EXPLORATORY STUDY FOR SOCIAL AND ENVIRONMENTAL PROBLEMS

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ABSTRACT: *The notion of health and wellbeing issues in urban areas has triggered genuine advances in research and applications striving to achieve valid sustainable outcomes for living environments. According to the 2017 UN Climate Change Conference held in Bonn, Germany, the world is becoming attentive to depending on sustainable policies and practices which are supported in several international environmental agreements and conferences that were initially held to tackle the issue of global warming, economy crisis and social equity. This research addresses one of the most compelling problems in Lebanon; informal settlements and the vice of sustainability and related health and wellbeing issues. The research focuses on Al-Ouzai area as a living example of all disintegrated realities in a residential dense settlement. This is an exploratory study that utilizes available secondary data and some primary ones based on observations done in 2017/18. The aim is to furnish a strong base for a future in-depth investigation in the area that is planned to take place in the following year through NCRS. The research utilizes a comprehensive SWOT analysis approach that covers the basic elements of sustainable development thus furnishing basis for future research and planning intervention in the area.*

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1. INTRODUCTION

Lebanon is a small Arab nation of 10,425 km² in Northwest Asia. The country has a 200km coastline, running north-east - south-west along the eastern shores of the Mediterranean Sea. It borders with Syria and Palestine. The total population is estimated at around 4 million, 86.6 per cent of whom live in cities, with 32.5 per cent or 1.3 million people living in Beirut and its suburbs alone (ACS 1998) (Peillen, 2003).

Until the beginning of the 1970s, the country's policies were marked by a strong economic and a relatively political liberalism. At the time, the Lebanese economy boomed, mainly from an influx of capital from neighboring countries (oil, rent and others) as well as from Lebanese expatriates, all attracted by the guaranteed secrecy of the Lebanese banking system. (Tabet 2001)., the Lebanese economy essentially relied on its service sector, at the expense of the industrial, and especially the agricultural sectors. Few if any social policies were developed, and with the exception of some emergency measures, the state intervened rarely to improve housing conditions. Some exceptions to these tendencies can be seen under the mandate of President Chehab (1958-1964), who was elected after the short civil conflict of 1958, and sought to strengthen the presence of the state through regional development policies, the establishment of social institutions, and the control of the growth of Beirut. To this end a number of public institutions were created and the first five-year development plan was launched (Fawaz 2002, Tabet 2001). These efforts did not however reduce the drastic level of income inequality in Lebanese society and the resulting massive rural-urban migration.(Peillen, 2003)

The country's modern history is marked by religious and political strife, which led to a succession of conflicts (1860, 1958) and culminated in the 1975-1991 civil war. The country was also particularly marked by its regional context, with the trans-Arab national movements of the 1960s as well as the Arab-Israeli conflict since 1948 (Corm 1986). Lebanon particularly suffered from the Arab-Israeli war. Between 1978 and 2000, sections of the country were occupied by Israel, including the capital city in the summer of 1982. Military conflicts were particularly destructive, with significant casualties: some 65,000 dead, 84,000

wounded, 22 per cent of Lebanese families displaced at least once, and 700,000 to 900,000 ended up as immigrants. Add to this, the destruction of the physical infrastructure of the country (water, electricity, telephone networks and roads. These conflicts left Lebanese households impoverished, reduced the country's middle class and exacerbated already existing income disparities. (Baz 1998, Haddad 1996, Peillen, 2003)

- **The War Years (1975-1990)**

During the fifteen years of the civil war social, economic, physical, political, and administrative structures were almost completely destroyed. The central state also lost much of its power and its services were considerably reduced. Furthermore, much of the country's productive apparatus was considerably weakened and the informal and illegal (war) economy flourished considerably. The country has also faced, as of 1982, a rampant inflation that has impoverished its middle classes.(Peillen, 2003)

- **Post War Reconstruction (1990-Present)**

The post war reconstruction phase has been marked by two national plans: the National Emergency Reconstruction Plan (NERP), orchestrated for the first five years of reconstruction and Plan Horizon 2000, complemented later by Plan Horizon 2005. The two plans are managed by the Council for Development and Reconstruction (CDR), created in 1977 as a public central management organism for all reconstruction works. A total of 130 projects were planned, over 15 sectors. The plans are essentially financed by foreign and internal loans (CDR 1992). Most investments are concentrated in physical infrastructure and large-scale "showcase" projects. Public transit, low-income housing, and other salient social problems are not addressed. In order to solve the problem of displacement, the Ministry of Displaced People was instituted, and a 'return programme' was launched. Between 1993 and 1995, substantial economic growth was noted in the country. However, since 1996, the economic activity in the country has shown a substantial slow-down, especially because of the current crisis in the real estate and construction sectors and the unstable regional context, including large-scale Israeli bombardments in 1993 and 1996 (Aveline 2000). The budget deficit has now reached alarming levels - 38 per cent in 1999.

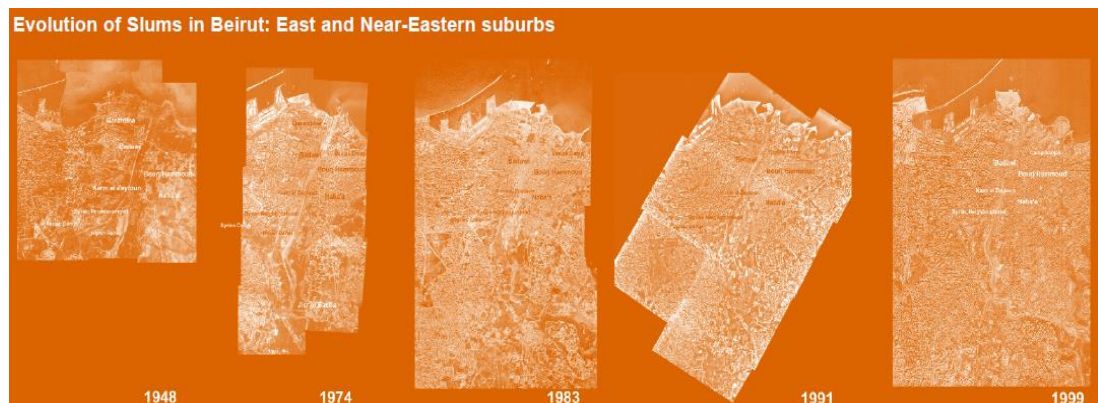


Fig. 2 Evolution of Slums in Beirut: East and Near- Eastern Suburbs (Peillen, 2003)

Furthermore, the volume of debts, both internal and external, has substantially increased because the country is unable to service its debts, which have reached over US\$ 30 billion (UN-ESCWA 2000). Since the end of the war, several studies have pointed to increases in poverty levels and worsening of living condition indicators: over 25 per cent of the population lives below the poverty line (Haddad 1996), and median incomes have been reduced considerably, according to one study, by 50-60 per cent in comparison to what they were in 1966. Currently, 25.8 per cent of individuals living in Beirut earn less than US\$106/month, and the rate of credit is five times higher than in 1966 (Hamdan 2001).(Peillen, 2003)

1.1 Research goals and methodology:

This research has been initiated to furnish some solid ground for a future grant that has been proposed to CNRS in 2018. The aim is to explore the possibilities of sustainably developing the area of Ouzai, Lebanon. This should present a model for applying principles of sustainable development in degraded areas in the region. The paper utilizes secondary data from available resources; this includes historical documentations, surveys and research papers about the area. Besides, some primary data is in place based on the research team observations in the area and through talks with residents and key informants around. Specific sampling issues have been postponed for later stages of the main research grant.

Thematic analysis follows, thus furnishing bases for a SWOT analysis that covers issues of sustainability in the area. Some recommendations are highlighted to guide future research in the area.

2. SLUMS/ INFORMAL SETTLEMENTS IN BEIRUT

2.1. Towards a Definition of Slums in Beirut

Given its complex history, the limited illegalities in property rights, and the widespread violation of building and construction codes, it is difficult to adopt legality as a criterion for slum identification in Beirut. Therefore, based on this and for the purpose of this study, slums are identified as areas of the city where the majority of residents live in precarious economic and/or political conditions with high levels of vulnerability, and where services and living conditions appear to be lower than other sections of the city. Also, given the absence of public data on these areas, and/or on poverty in the city, our definition and assessments rely essentially on qualitative measures, developed through our own research experiences in the city, various reports -academic and professional- in Lebanon and Beirut, as well as interviews with slum dwellers, researchers, and policy makers. Hence, we do not claim to present in this typology, a comprehensive listing of slums and their living conditions in the Metropolitan Area of Beirut but rather an initial investigation, designed to bring visibility and attention to those areas in the city, and to propose theories that can explain their location and the logic of their evolution. (Peillen, 2003)

2.2. Typology of Slums

The endorsed typology attempts a unified understanding of the slums of Beirut and proposes a typology that organizes them according to their mode of production and the particular regional and national political situations that led to their establishment. Furthermore, depending on the time when they developed, and the region where they were located, each of these types, as is explained below, tends to have some common characteristics, in terms of location, relation to the law, level of services, and living conditions. In some cases, and given a long and complex history, slums can belong to several categories and we have included them in both. Following this approach, the following categories of slums can be listed:

- **Slums that began as international refugee camps or low-income housing areas for international refugees (instituted from 1920-1955)**

Refugee camps are historically the oldest slums of Beirut. These slums are located within and outside the city's municipal boundaries. Camps were organized for Armenian (1920s), Syrian (1920s) and Palestinian (1948) refugees with the help of international organizations, while Kurds occupied abandoned camps and deteriorating tenements in the city center. Today, only traces remain of the Armenian camps while the Palestinian camps are among the main slums of the city.

- **Slums that began as housing areas for rural urban migrants (1950s-1960s)**

These slums housed the various waves of rural to urban migrants arriving in Beirut and its suburbs in relation to the country's industrialization and urbanization processes, coming especially from South Lebanon and the Bekaa Valley where poverty and insecurity (in the case of the South) gradually encouraged an important migratory movement. Several types of slums should be listed under this category, according to their location, and the conditions o

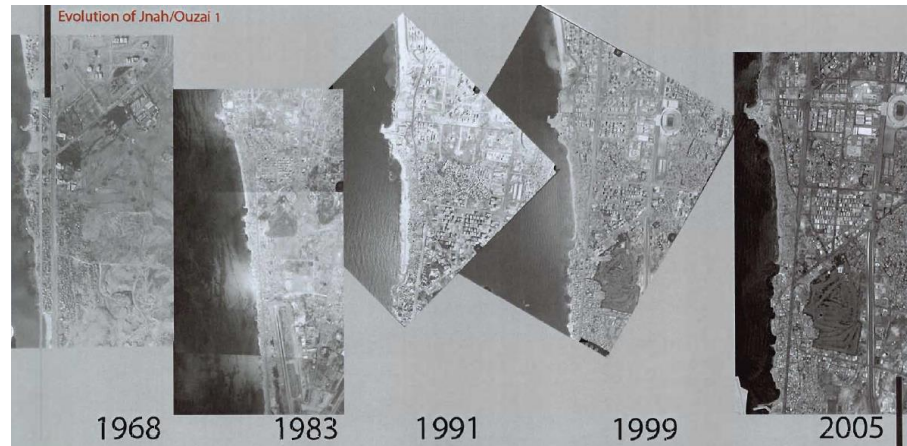


Fig. 4 Evolution of Jnah / Ouzai. (Jabri, 2008)

Their development: (i) slums that developed either as a direct extension of existing refugee camps, or in their close vicinity; (ii) slums that developed on agricultural or green land, in the far suburbs of the capital city, and in violation of urban regulations, and (iii) slums that developed as squatter settlements in areas of contested property rights, often in the context of political rivalries among elite groups. In general these human settlements conform to various schemes of illegal land occupation/ illegal land subdivision described elsewhere in the Third World. A typology by historical origins should however not lead to the conclusion that slums today differ greatly because of their origin. On the contrary, many contemporary forces that act on these slums have resulted in similar patterns of evolution

- **Slums that began as squatter settlements during the period of the civil war (1975-1990)**

These areas grew in several parts of the city, where refugees displaced by the early events of the Lebanese civil war (1975) occupied either buildings or entire neighborhoods, abandoned by their owners (for reasons of security) or occupied large plots of land and transformed them into large squatter settlements. For instance, all slums have witnessed the development of large-scale rental markets and renting has become, since 1982, the primary method of accessing housing and a major source of income for old property owners in slums. This is further enhanced by the freezing of much of the housing stock by rent control outside slums and hence the reduction of rental opportunities for many low-income people to such informal arrangements in slum areas. (Peillen, 2003). Similar demographic changes are also noted in all slums, especially since the 1990s, with the arrival of a growing number of non-Lebanese workers (notably Syrian male workers), who live in these areas of the city. Today, almost none of the slums could be described as housing a group or community of similar national or religious origins. On the contrary, each of the existing slums has attracted migrants who arrived to the city during its various phases of growth. Hence, early Lebanese rural migrants tended to occupy areas within or at the fringes of refugee camps

Finally, it is perhaps important to acknowledge that the typology we are endorsing here is not the only possible one for the Beirut slums. A more frequently-adopted typology subdivides them geographically according to their location with respect to the municipal boundaries of the capital city (Bourgey and Phares 1973).

Other typologies subdivide them according to their location, east or south of the city, to mark their wartime evolution (Halabi 1988). The latter classification is particularly useful since the division of Beirut into two antagonistic parts led to important changes in slum areas in each of the two sectors, notably depending on the attitude or position of militias towards these slums (Halabi 1988). This trend is currently being reversed with the policies of the Ministry of Refugees. Despite these elements, we believe that a typology by origin has the merit of best explaining the variety and the differences that exist between these slums, especially since these differences still have relevant repercussions to date. It also responds well to the challenge of proposing a unified understanding of Beirut. (Peillen, 2003)

3. OUZAI CASE STUDY

The Jnah /Ouzai informal settlement is located on the Southern coast-line of the capital Beirut. Although the sea in that area is considered a public space, the settlement is obstructing any public accessibility to the beach due to its stigmatization by the rest of the city. In that sense, and for logistics the research consider Janh / Ouzai “sea edge” as an interesting site for investigation; it is a sea edge that is blocked, not by neoliberal projects, but rather by an ‘ illegal settlement’ as shown in Figure (4) (Jabri, 2008).

The Coastal area of Choueifat is considered a strategic location because of the highway linking Beirut to the south. However, this strip of land is invisible at the city scale due to the imposing presence of the Airport. With regards to the current users of the site, they mainly come from Ouzai. Families and kids come during weekends, while individuals and fishermen use the site during weekdays.

3.1 Current Situation

The Ouzai neighborhood has more than 19,600 residents that are mostly internal migrants from the Bekaa valley and south Lebanon who fled their villages during Civil war to seek job opportunities. The dominant age groups range between 10-20 and 21-40. Ouzai is now a commercial and economic hub for residents (Figure. 5) (Zeenni, Spring 2015-2016).

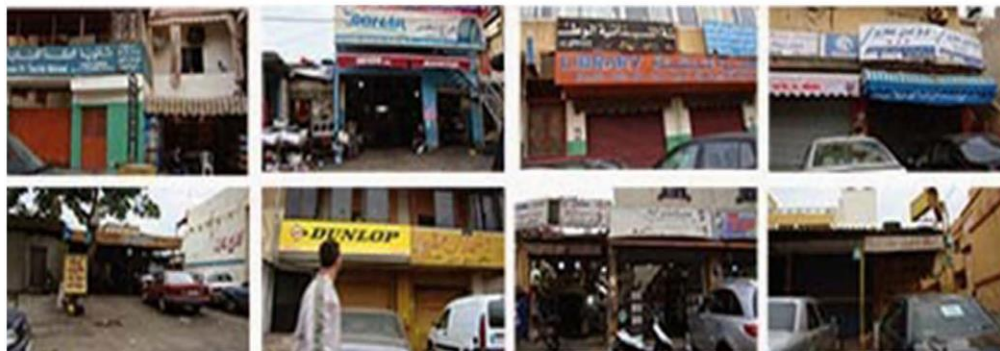


Fig. 5. Shops in Ouzai.(Zeenni, Spring 2015-2016)

The main street that crosses the neighborhood has shops (mainly furniture shops) on both sides. The community is highly conservative, with no activities or extracurricular activities for children. Therefore, the closest recreational space they can go to is the seaside. This was not the case a few decades ago; during the 1940s, the Ouzai coastline was covered with sandy beaches and luxurious resorts, which attracted people from close and far neighborhoods. (as shown in Figure. 6 and Figure. 7)

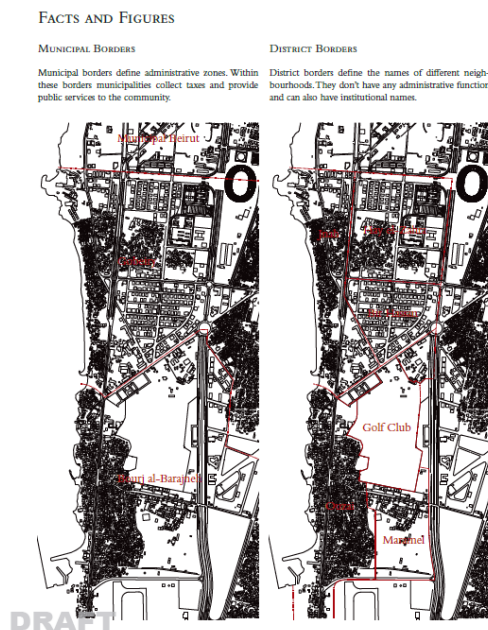


Fig. 6. Ouzai Between 1940 and 1970.(Zeenni, Spring 2015-2016)



Fig. 7. Municipal Borders and District Boarders.(Nicolas and Harry, Winter2009)

4. A FRAMEWORK FOR ANALYSIS:

4.1 Sustainable Development Strategies:

Though problems in developed countries are mainly related to quality of urban life, those in LDC's are often questions of life and death, such as problems of poverty, clean water availability, waste, pollution, and congestion (Shamsul Haque, 2000). Besides, many paradoxes characterize the current scene. For instance, while everything is going global, individual isolation grows; while wealth increases, extreme poverty also increases; while science and technology offer incredible opportunities for survival, the risk of humankind's extermination looms larger and larger (Wieslaw, 2001). One of the consequences of the growing global capitalism is social degradation that is represented by social inclusion and exclusion. This relates to poverty of not being a citizen; poverty related to the impossibility of being part of a city and of making choices, or to the restrictions of the space of choices really available to everybody (Friedmann, 1992 and Wieslaw, 2001). As a result, the concept of sustainable development became the main strategy for our communities to survive. Sustainable concept strives on three main parameters: Environment, Society and Economy. These should interact with synergy whenever healthy and sustainable outcomes are sought (as shown in Fig. 8).

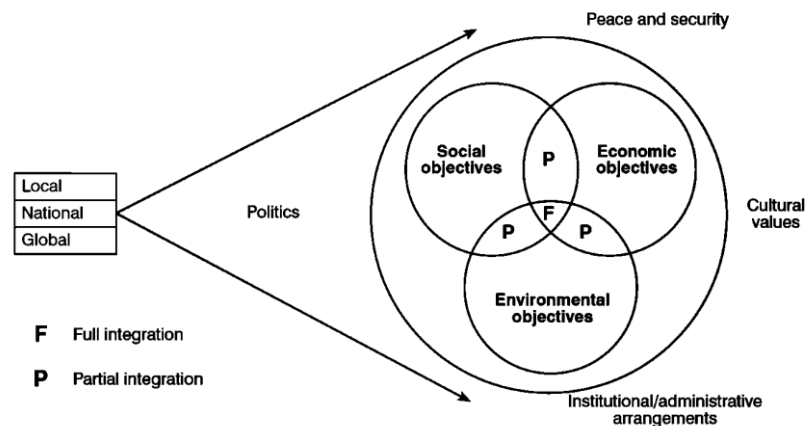


Fig.8. The systems of sustainable development (Bass, 2002)

4.2 Principles and Theories:

In the sustainable urban development field, principles reflect the main concepts, though with some sub branches and details. According to PICABUE model of sustainable development (Mitchell, 1995) the sustainable urban development process is divided into four main factors: Ecological Integrity, Equity, Public Participation and the Futurity (as shown as Fig. 9).

The ecological integrity part reflects the environmental part in the main sustainable development system; the main concern here is for the integrity of ecosystems that include natural resources, biodiversity, land use and environmental pollution issues. The second factor is equity with a concern for today's poor and disadvantaged people. This represents the socio-economic part of the main sustainable development strategy model that fulfills the fairness for all with the ecological integrity factor (as shown as Fig. 9). The third and fourth elements are concerned with the inclusiveness of decision making at the institutional level. Public participation and future generation's rights are the keywords in that respect.

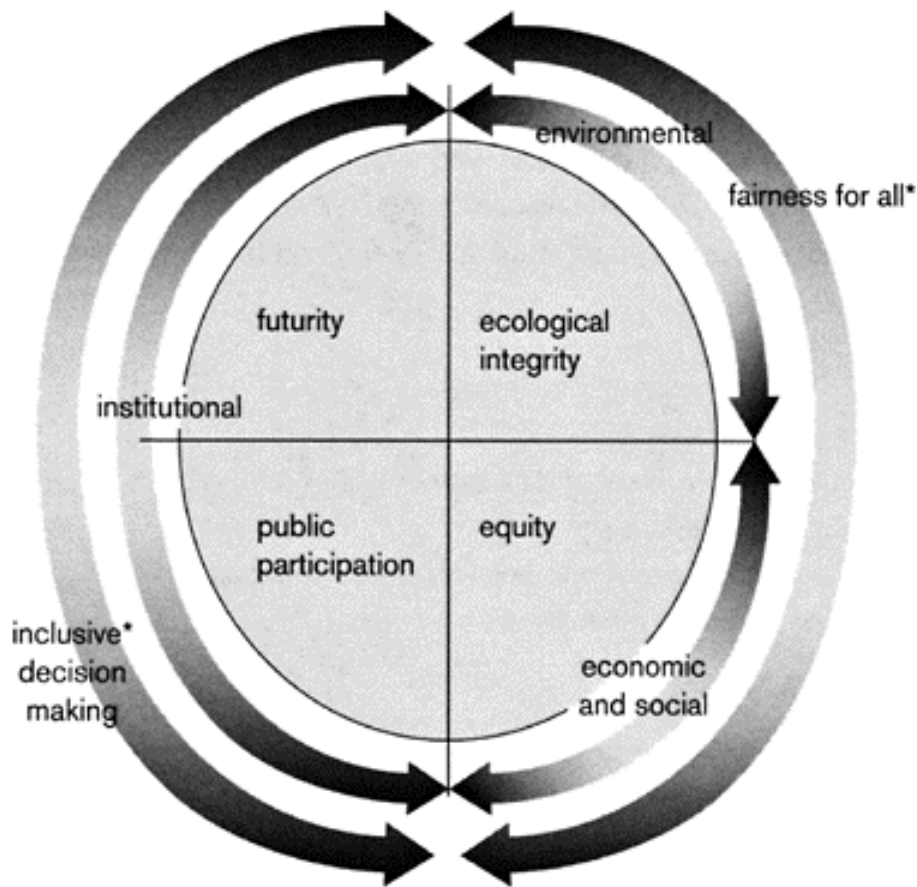


Fig.9. The fourfold definition of sustainable urban development (Curwell, 2005)

Fig (10) shows a plausible matrix developed by Mark Deakin, Martin Symes and Steven Curwell (Curwell, 2005) that helps evaluating proposed sustainable development policies. This tool is divided into four branches too; but in different distribution and priorities: development activities, environmental and social issue, special level and time scale

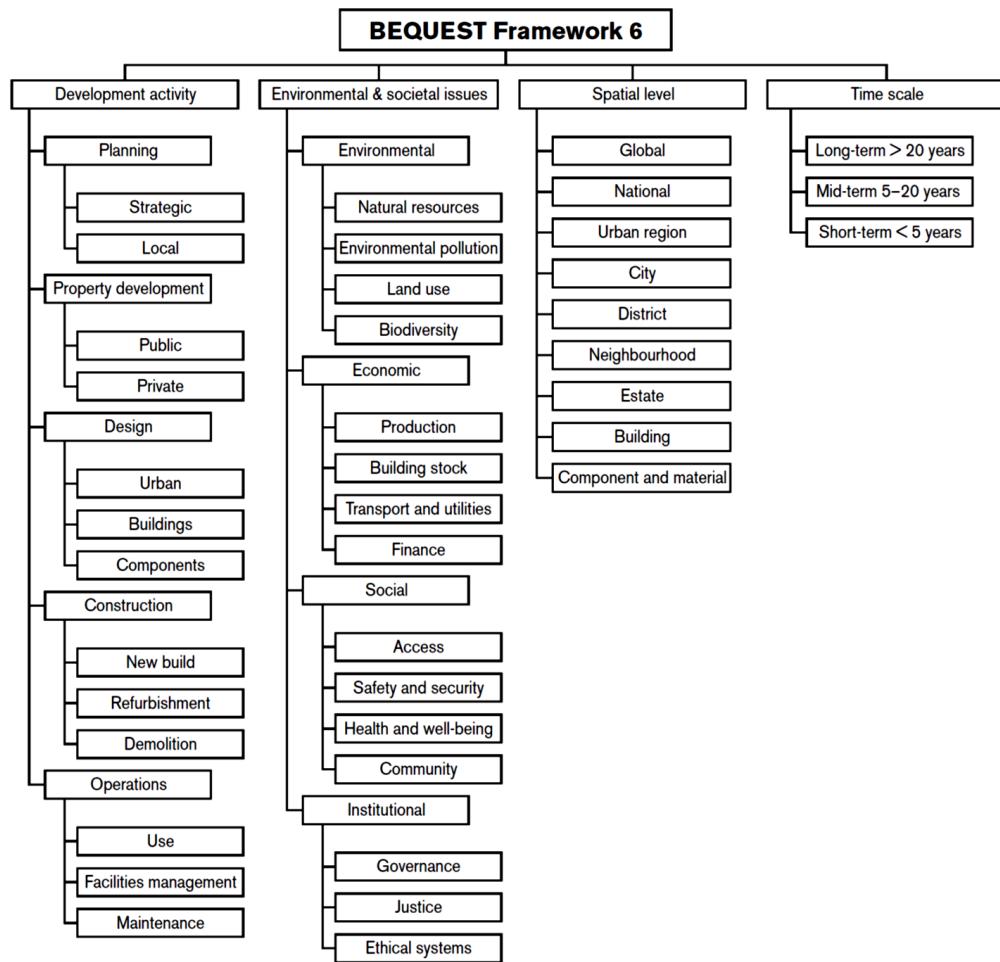


Fig.10. Toolkit for evaluating the sustainability of proposed urban re-developments (Cooper, 2009)

There are many attempts to develop the environmental part in the urban sustainable development process by merging it with the theories of the zero carbon cities. The parameters affect the zero carbon cities according to Adrian Smith and Gordon Gill are (as shown as Fig.11) {Smith, 2012 #7}:

- Buildings: Analyzing the existing building carbon emissions and energy usage by considering the components that are responsible for the majority of loads and by looking closely at how the different building types in the loop perform.
- Urban Matrix: Examine the approaches to develop the urban area and design solutions.
- Mobility: Analyzing the relationship between urban density and gas consumption, the public transportation, bicycle and pedestrian routes.
- Smart infrastructure: Examine the regional trends in energy supply and distribution.
- Water: investigating method for carbon reduction by replacement of aerators on sinks to the restoration to wetlands.
- Waste: Searching for design solutions offer possibilities for reduce the carbon load of waste treatment.
- Community engagement: Searching for the concepts of participation of community activities.
- Energy: Searching for the regional energy demands and the renewable solutions that reduce the carbon emissions.

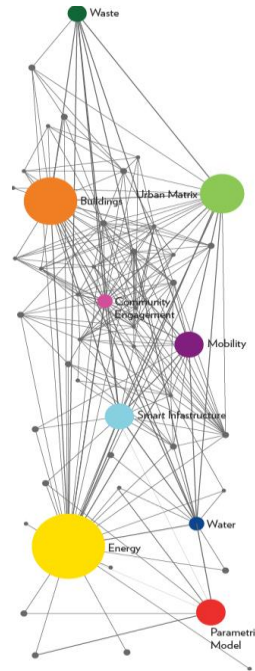


Fig.11. The approach required to identify and find solutions to carbon emissions (Smith, 2012)

4.3 Strategic method and technique:

The research analyzes the case study area by merging and re-organizing the principles of urban sustainable development that considers the tool kit for sustainable evaluation as a main guide (as shown as Fig.10). It comprises the four main factors: Development activity, Environmental & societal issues, Spatial level and Time scale but in a different distribution and sub-contents. Then, the SWOT analysis method is applied to explore strengths, weaknesses, opportunities and threats to the identified area. This is a key step that would help future plausible research in the area that aims at finding practical solutions to upgrade the area sustainably. The following diagram shown in Fig. 12 summarizes this method.

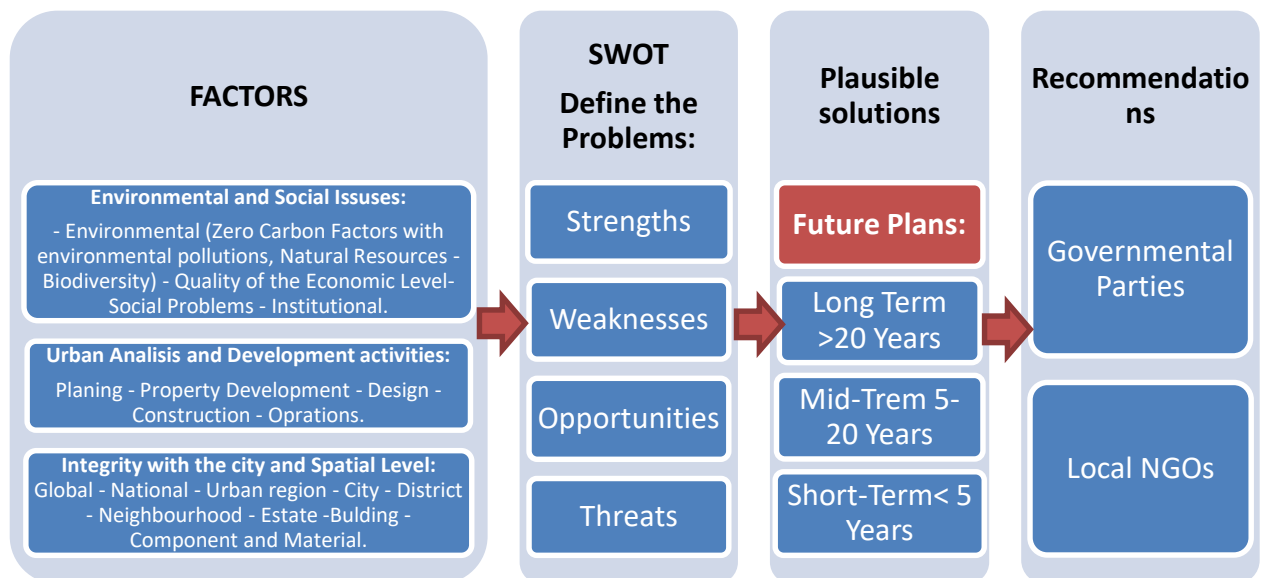


Fig.12. The strategic method and technique, (Researcher, 2018)

4.4 Analysis and results:

Table (1) details the main elements of the SWOT analysis done in the area

Table 1. SWOT Analysis, (Researcher, 2018)

SWOT Analysis			
Factors	Strengths	Weaknesses	Threats
<p>Environmental and Social Issues</p>	<p>- 3 Km in coastal line can be used to reduce the urban heat islands by increasing the width of the street to allow the air movement through it.</p>	<p>The quality of air is so bad according to the small width of street with small spaces as green areas. These factors create urban Heat Island effects.</p> <ul style="list-style-type: none"> - The infrastructure is in bad condition which reflects directly on the environment by rain water flooding in winter seasons. - in 2016 Lebanon faced a major problem of garbage collection, which increased the amount of garbage in whole Lebanon and specifically in informal settlements. This reflected directly to the level of health of population. - on the other hand, Lebanon is suffering in energy sector, accordingly, the government provides electricity - which come from gas burn- for just 6 hour per day and most of people support themselves by using private generators which increase the amount of green house gases. - Another sector of producing the green house gases is transportation (airplanes and cars) because the huge amount of cars the pollution from that increases the CO2 emission which increases temperature. Also, according to the location of the roads and networks: Slums and irregular inner networks, Poor quality of the inner road networks without any infrastructure for rain drainage, lighting and traffic signs. The infringement by the commercial and industrial entities on the main spine led to traffic jams - Lack of car parking areas - Lack of sidewalks - the width of the inner roads doesn't fulfil the minimum requirements of the health and wellbeing conditions such as natural lighting and ventilation. - Hazard plans: The width of the road networks generally and the inner one are especially not fit to the minimum civil defense conditions for firefighting, ambulance routs, earthquake and war buildings. - Property Development, design and construction: Primitive-slum design and construction methods - Poor quality of the inner residential spaces - Poor construction and finishing materials - Poor structure systems - Poor quality of the aesthetic factors for the inner or outer spaces. 	<ul style="list-style-type: none"> - the continuing absence of the judiciary and security measures, thus giving the chance to other parties to impose control.
<p>Urban Analysis and Development activities</p>	<ul style="list-style-type: none"> - Location: the southern edge of Beirut - in the middle coastal region of Lebanon - about 3 km coastline length - adjacent with the Beirut international airport - surrounded with some luxurious plots such as Bir Hassan and Beirut Golf land in the north and east edges - vacant land lots in the southern edge. - Roads and networks: The southern Lebanon highway in the eastern edge - The entrances roads from north and south are well constructed - The airport tunnel in the southern entrance - The road networks integrated and attached with the national road networks without any obstructions. - Economic facilities: the coastline resorts in the north edge - The commercial area located in the main spine of the sector - The industrial workshops especially those specialized in furniture-making in the eastern edge of the main spine. - The governmental, health, and educational facilities: located on the north, south and east edges with some throughout facilities in the sector especially the education facilities. 	<ul style="list-style-type: none"> - Revision and restudy the opportunities of the previous plans Ecohard II, III and the 1995 plan Elyassar. - The economic development for the sector through the development of the coastline and the main commercial spine. 	<ul style="list-style-type: none"> - Road accidents. - Partitioning. - Human losses due to The lack of The hazard plans. - Outbreaks of epidemics due to pollution and poor health and wellbeing conditions. - Outbreaks of crime due to poverty and slums networks.
<p>Integrity with the city and Spatial Level</p>	<ul style="list-style-type: none"> - Close proximity of Beirut between the Beirut administration city and its extensions: it also a connection made between the city of Beirut and the southern cities as a traffic arteries during the rush hours. - Important economical connection made adjacent with Beirut city especially in the furniture sector: It also consider as an important supplier of low cost labors to the different economic field in the Beirut or in the adjacent cities. 	<ul style="list-style-type: none"> - Develop the district by connecting with the surrounding - re-plan the urban fabric, provide it with the required services and facilities, and create a new model for the middle level residential sectors. 	<ul style="list-style-type: none"> - The isolationism could be developed to a higher level with crime and partitioning nodes that may lead to the full isolationism form with its ramifications on the political, social, economical, etc. sides of the whole country.

5. CONCLUSIONS:

Health and wellbeing, sustainable living and development; all are goals that environmental planners strive to achieve. The research delineated some history of slum areas in Beirut, Lebanon, its origin and possible classification. Ouzai; our area of interest has been presented using available secondary data and some observations in the field. SWOT analysis Table.1 shows a great potential to alleviate the persistent problems of the area and of other similar areas with some qualifications. All that has been done with an eye on a future more in depth research in the area.

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