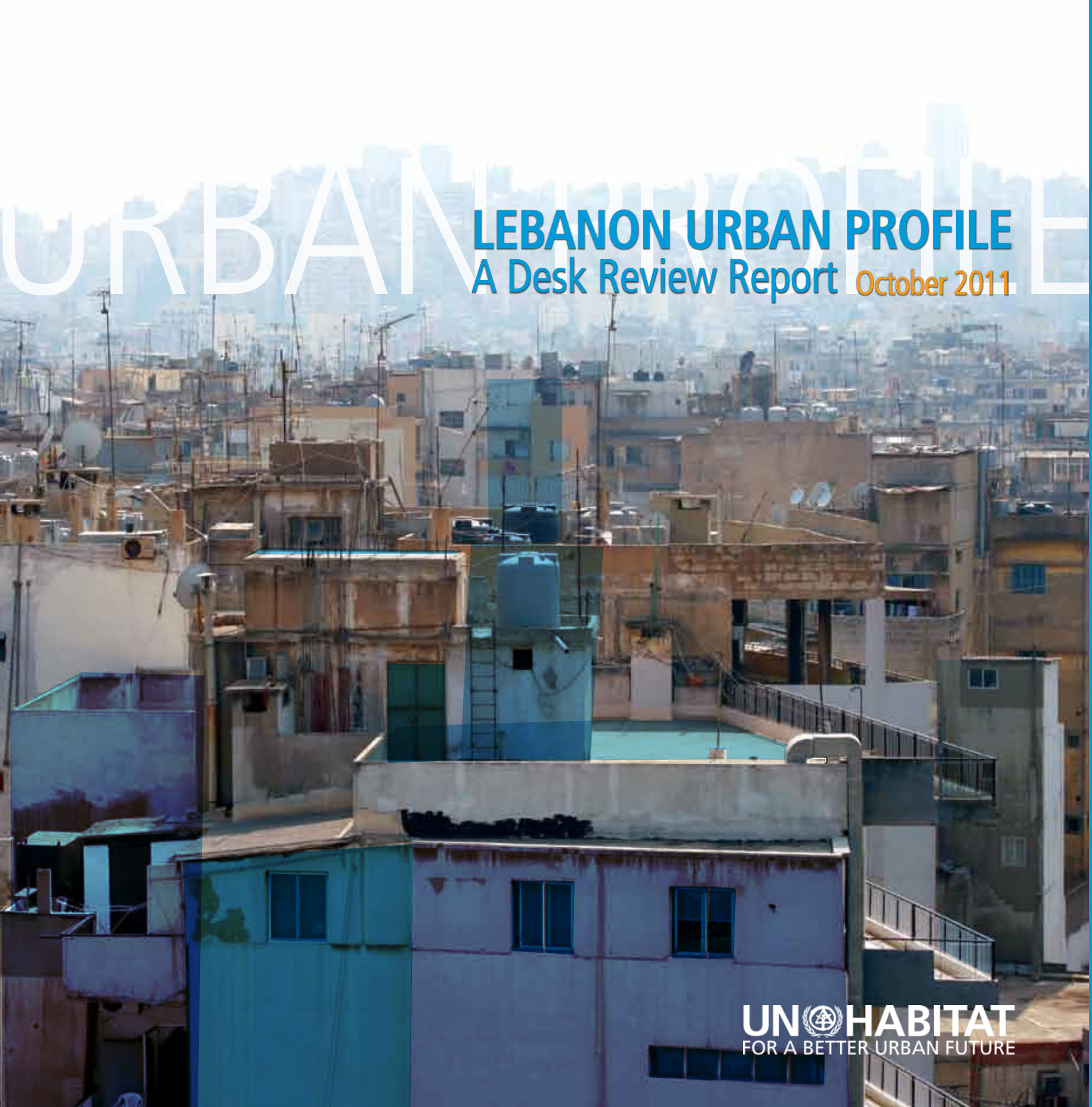
URBAN PROFILE

LEBANON URBAN PROFILE

A Desk Review Report October 2011



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The United Nations Human Settlements Programme, UN-HABITAT, is the United Nations agency for human settlements. It is mandated by the UN General Assembly to promote socially and environmentally sustainable towns and cities with the goal of providing adequate shelter for all. UN-HABITAT's programmes are designed to help policy-makers and local communities get to grips with the human settlements and urban issues and find workable, lasting solutions.

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ACRONYMS AND ABBREVIATIONS

CAS	Central Administration of Statistics
CDR	Council for Development and Reconstruction
COM	Council of Ministers
DGC	Directorate General of Cooperatives
DGU	Directorate General of Urbanism
EIA	Environmental Impact Assessment
EDL	Electricite du Liban
HCUP	Higher Council of Urban Planning
GDP	Gross Domestic Product
GNP	Gross National Product
GOL	Government of Lebanon
IMF	Independent Municipal Fund
MOA	Ministry of Agriculture
MOE	Ministry of Environment
MOF	Ministry of Finance
MOIM	Ministry of Interior and Municipalities
MOPH	Ministry of Public Health
MOPWT	Ministry of Public Work and Transport
MOSA	Ministry of Social Affairs
NERP	National Emergency Reconstruction Plan
NIH	National Institute of Housing
NPMPLT	National Physical Master Plan for the Lebanese Territory
OMSAR	Office of the Minister of State for Administrative Reform and Development
PM	Prime Minister
UNDP	United Nations Development Programme
UNESA	United Nations Department of Economic and Social Affairs
UN-HABITAT	United Nations Human Settlements Programme
UNICEF	United Nations International Children's Emergency Fund
UNRWA	United Nations Relief and Works Agency for Palestinian Refugees in the Near East
WB	World Bank
WHO	World Health Organization

INTRODUCTION

Lebanon is a small country with a total population of 4,223,553 (World Bank, 2010). Recent figures show that 87% of this population currently live in urban areas with the majority - estimated at 64% - residing in large agglomerations mostly in the metropolitan areas of Beirut and Tripoli (UN-HABITAT, 2008). The growth of cities in Lebanon has paralleled the urbanization process that is taking place globally. The conditions generated out of urbanization have a number of universal commonalities. Urbanization brings an array of opportunities: economic, social and cultural. Cities are engines of economic growth and create livelihood opportunities; they are also sites of diverse religious and sub-cultural groups and communities making life in cities culturally inspiring and socially richer. Challenges, on the other hand are numerous; they range from the intricacy of providing equitable economic opportunities and access to social services to all, to securing safe places and making the urban environment healthy and sustainable.

Cities in Lebanon reflect these dynamics as well, encompassing most of the economic prospects, livelihood opportunities and services and accommodating for a diverse population that reflects the different religious and sectarian belongings, socio-economic brackets, cultures and also nationalities in the country. While this has contributed to enriching the cultural diversity in Lebanon, it has also led to the creation of urban divides and the rising of conflicts especially during and after the Lebanese civil war (1975 – 1990). The evidence is clear today on the urban geography of cities and major urban centres in Lebanon, which have became spatially divided along these religious/sectarian lines, with pockets formed to accommodate for the less advantaged groups (the poor, the internally displaced, refugees, migrant workers) mainly as informal areas developed around major cities[1].

While the universality of challenges and opportunities brought by the urban conditions are acknowledged, there has not been a systematic outlook at the specific and contextualized challenges and opportunities in Lebanon's cities and urban areas. This paper aims at filling such gap by profiling the urban condition of Lebanon. It is by no means a comprehensive study of Lebanese cities but it aims at instigating debate and dialogue on these challenges and future policy directions through presenting an overview of Lebanon's urban condition.

This paper has been prepared to serve as a background paper for the first report on the State of the Arab Cities to be published by the UN-HABITAT, the Arab League and the Arab Town Organization. It is based on a desk review of existing and published studies, papers and reports. The paper follows a template prepared for the State of Arab Cities and is divided into six sections: section one looks at the population and urban growth, section two profiles the urban economy, section three addresses the challenges to urban development, section four looks at the environmental challenges in urban areas, section five tackles urban governance and section six concludes with the emerging urban issues with focus on Lebanon's urban divides.

[1] *See among others Beyhum (2001), Fawaz (2002), Tabet (2001).*

Box 1:

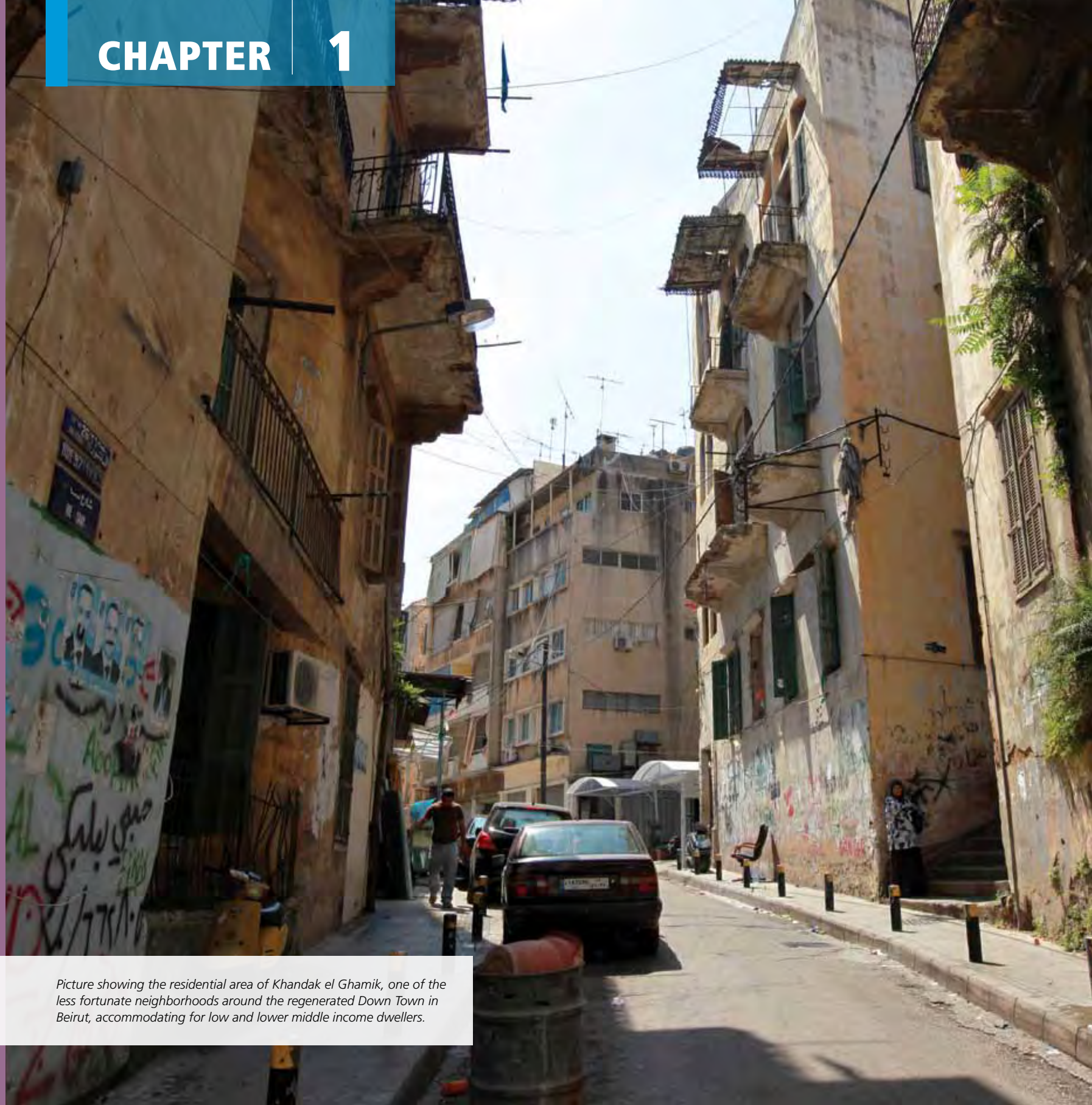
Definition of Urbanization

Urbanization is defined by the UN as the movement of people from rural to urban areas with population growth equating to urban migration. Urbanization occurs naturally from individual and corporate efforts to reduce time and expense in commuting and transportation while improving opportunities for jobs, education, housing, and transportation. Urbanization is measured by the percentage change in a city's population from year to year.

Definitions of an urban area vary between nations. European countries define urbanized areas on the basis of urban-type land use, other countries such as the United States count in the size of population and/or population density. In less developed countries, in addition to land use and density requirements, a requirement that a large majority of the population, typically 75%, is not engaged in agriculture and/or fishing is sometimes used.

Urbanization is estimated to consume an additional 10km² of natural areas every year in Lebanon, according to the National Physical Master Plan for the Lebanese Territory. This picture, taken from the Northern entrance to Beirut, shows the haphazard expansion of urbanization into the mountains surrounding Greater Beirut Area.

CHAPTER 1



Picture showing the residential area of Khandak el Ghamik, one of the less fortunate neighborhoods around the regenerated Down Town in Beirut, accommodating for low and lower middle income dwellers.

POPULATION AND URBANIZATION

1.POPULATION AND URBANIZATION

Lebanon is a Middle-Eastern Arab country located at the heart of the Eastern shore of the Mediterranean Sea. With a total surface of 10,452Km², Lebanon is divided into 6 administrative units – Governorates (Mohafazats) which include Beirut, Mount Lebanon, North Lebanon, South Lebanon, Nabatiyeh, and Beqaa (see Figure 1). The National Survey of Household Living Conditions conducted by the Central Administration of Statistics, Ministry of Social Affairs and the UNDP (2007) shows the distribution of the Lebanese population among the different Governorates/Mohafazats, with Beirut and Mount Lebanon accomodating for around 50% of the population (see Table 1).

Figure 1: Governorates of Lebanon
Source: http://mapsof.net/lebanon/static-maps/png/lebanon-governorates-english

Table 1: Distribution of the Lebanese Population across Governorates in the Year 2007

Place of Residence	Percentage (2007)
Beirut	9.6
Mount Lebanon (including Beirut suburbs)	39.5
North	20.3
Beqaa	13
South	17.6
Lebanon	100

Source: CAS, MOSA, and UNDP, 2007

The suburbs of Beirut were expanded around the city to absorb population growth; today Beirut and its suburbs respectively accommodate for the highest numbers of young population among other regions in Lebanon.

1.1 LEBANON POPULATION

The population of Lebanon is estimated to be 4,223,553 (World Bank, 2010). When looking at the midyear estimates of the total population covering the years from 1980 till 2009, an increase in the population rate can be noted during the past 3 decades, evolving from 2,784,713 in 1980 to 4,223,553 in 2009, that is a 1.5 fold increase in a period of 30 years (Ibid). These figures are projected to reach 5.2 Million in 2030, as shown in Table 2.

Although Lebanon has been facing a decrease in its fertility rate during the past decade, it has a considerable youth population. Youth in the age strata 0-24 year comprise around 41% of the total population (see Figure 2). Furthermore and looking at the youth across Lebanese regions, youth in the age-group 15-24 are mostly living in urban areas with around 61% living in Beirut, Beirut suburbs, Mount Lebanon and the North in descending order (see Table 3). This is mostly due to the heavy presence of educational institutions, industries, service sectors and other income generating activities in urban areas such as Beirut and Tripoli. Nonetheless, the abundance of life opportunities in Lebanon's urban areas are counteracted by countless challenges related to the urban setting such as the overcrowding conditions, the competition with foreign labor forces and the low wages, which press youth to resort to emigration and look for opportunities outside their country of residence. This is particularly highlighted when examining the discrepancy in the proportion of male to female population in Lebanon in the 24-29 age brackets, as reflected in Figure 2, with the emigration phenomenon more pronounced among males (CAS, MOSA, UNDP, 2007).

Table 2: Projected Population Growth by Regions

Regions	Population in 2030	Growth from 1997-2030 (%)
Beirut and Mount Lebanon	21.22	2,310,000
North and Akkar	41.18	1,140,000
South and Nabatiyeh	37.93	1,040,000
Beqaa and Baalbeck-Hermel	38.90	740,000
Lebanon	30.79	5,230,000

Source: CDR, 2005

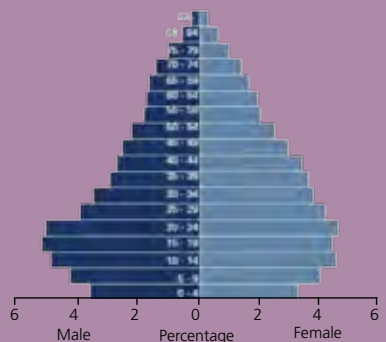
Table 3: Distribution of the 15-24 Year - Old Working Force by Mohafaza

Place of Residence	Percentage (2007)
Beirut	12.1
Mount Lebanon*	25.2
Beirut Southern suburbs	11.1
North	22.6
Beqaa	11.6
South	17.4
Lebanon	10 0

**Excluding Beirut Southern suburbs*

Source: CAS, UNDP, and MOSA, 2007

Figure 2: Lebanon Age Pyramid



Source: CAS, MoSA, and UNDP 2007

1.2 URBAN POPULATION

Lebanon's urban population is estimated at 87% (UN-HABITAT, 2008), with around 3,674,500 living in cities and urban areas, making it a highly urbanized country that outweighs most of the neighbouring Levantine Arab countries. It is estimated that 64% of the Lebanese population (2,703,000) live in large agglomerations mostly in the city of Beirut and its surrounding suburbs along with Tripoli, Saida, Tyr and Zahle (Ibid).

The increase in population size in the last 30 years took place mostly in urban areas, where urban population increased from 2,052,000 in 1980 to 3,712,000 in 2010. This was coupled with a decrease in the rural population from 733,000 in 1980 to 543,000 in 2010. The phenomenon has intensified during the civil war period (1975 – 1990), where mass displacement (for fleeing the war and/or in search for better socio-economic opportunities) has resulted in a noticeable population decline in villages and the exponential growth of major cities and urban areas. The increase in urban population has continued throughout the years following the end of the civil war in 1990, demonstrating how urban growth in Lebanon has become mostly a natural growth and relying less on in-migration from rural areas (UNESA, 2010).

1.3 URBANIZATION IN LEBANON

Historically, the process of urbanization in Lebanon has been largely affected by the interplay of global and national factors that gave Lebanese cities, and in particular Beirut and its surrounding towns, a prominent economic and political role to become population magnets. Global factors in the past century, such as the dramatic changes in the global economic system through trade and capital flows that pushed for a regional service-based economy, influenced such urban dynamics. These global factors, intermingled with national policies and approaches that favored the role of cities as economic engines, have attracted populations to cities from the rural areas in Lebanon as well as from other countries.

In the period that preceded the French mandate (1922 – 1934), Beirut had become an important port city and a major point of passage between the Syrian hinterland and Europe (Fawaz & Peillen, 2003) (for a historic overview of growth in Beirut, see Box 2). Since the 1920s, and in addition to the considerable number of Lebanese rural migrants who settled down in the main cities, an equally sizeable number of refugees including Palestinian, Armenian, Iraqis, Kurds, and others started arriving to Lebanon escaping the devastating impacts of armed and political conflicts in their own countries. Most of those refugees settled in and around the main urban areas in what started as refugee camps, some of which evolved into becoming informal areas. Furthermore, regional geopolitical events since 1948 and the closure of Haifa port have played a central role in reinforcing the prominence of cities and in particular Beirut as major Levantine urban centre. Wars and conflicts also played a central role in influencing the urban dynamics within Lebanon. For instance, the Lebanese civil war (1975 – 1990) and the Israeli wars on Lebanon in the years 1978 and 1982, have caused massive internal displacements of hundreds of thousands inhabitants who fled their original rural areas of residence to safer areas in and around the country's urban centres. Refugees and rural migrants in addition to urban population displaced by the war settled in informal squatted settlements which expanded and grew in an unorganized and sporadic manner, taking up land surfaces and producing a bulk of small low-quality housings in the outskirts of large cities such as Beirut and Tripoli (Fawaz and Peillen, 2003). Beirut received the largest share as the main urban centre of the country. Most of the residents

According to the census undertaken by the Bureau Spiral, in 1989, the city of Tripoli represented almost 80% of the total urban population in the caza. Ten years later, the city continues to attract the largest number of people at the caza level, representing almost 74% of the total urban population in the area. Today, the core of the city extending over 39 ha includes 1467 buildings, 3820 floors and 5049 residential units.

Box 2:

History of Growth of Beirut, Lebanon's Major Urban Centre

Prior to the war times, Beirut constituted the primary centre to the national economic, educational, and cultural activities. The capital houses the main government administrations in addition to being the main trading point with the availability of the port and the main international airport. A recent article on the geography and history of Beirut outlines the 5 development stages the city has passed by, awarding it an important and special trait as the Lebanese capital city. The first phase began under the ruling of the Ottoman Empire (1850-1920) when Beirut became a cornerstone in the regional networks. With an increase in openness to the global economy, many quarters started forming outside the city centre. The second phase was the one under and following the French mandate (1920-1958), when the Political Arab refugees started coming. During this period, Beirut was somehow demolished to give birth to a gentrified centre solely focused on trade and commerce. The third phase represents the urbanization sprawl and the creation of the misery belts around the city centre coupled with a rapid demographic growth and a massive rural to urban migration (1958-1975). This phase was subsequently followed by the civil war period (1975-1990) that entailed displacements within the city centre of different religious populations moving inside the city. Hence the 40% faction of the Muslim communities in the Eastern suburbs of Beirut decreased to merely 5%; as for the Christian faction, it decreased from between 30-40% to 5% in West Beirut and the Southern suburbs of Beirut. During this era, militias were taking control over the area, and created what is known as the Green Line, delineation between East Beirut occupied by Christians and West Beirut, occupied by Muslims. The last phase is the post-war period (1991 till date), when large urban reconstruction and building activities took place. The main motto of this epoch was that economic growth is at the heart of establishing and maintaining peace. Hence the focus on post-war recovery and large scale infra-structure projects (highways, electricity etc.) and on regenerating a state of the art central business district as the epitome for post-war economic development.

Source: Yassin, 2011, b

Source: CAS, MOSA, and UNDP, 2007

Source: CAS, MOSA, and UNDP, 2007

Pictures taken of the port in Tyr city, showing the port and the seashore development in 1898 and in 2011.

who escaped the tragedies of war settled down in the surrounding belts of Beirut, creating what became the urban under-served areas or 'the misery belt' of Beirut Suburbs[2] .

Urbanization has continued to expand in the post-war era in Lebanon. In its report on the state and trends of the Lebanese environment, the Ministry of Environment (2010) states a number of driving forces behind current urbanization in Lebanon: **1)** limited land area and high population density; **2)** the sanctity of the private property as rooted in the Lebanese Constitution; **3)** inadequate rudimentary (master) planning in Lebanon which has led to haphazard urbanization trends and **4)** income and lifestyle, where many people are able to afford secondary houses by renting or buying summer houses or chalets. Major cities and towns in Lebanon are denoted in Figure 3.

1.4 URBAN EXPANSION

The National Physical Master Plan for the Lebanese Territory (NPMPLT) published in 2005 shows the growth of urban areas in Lebanon from 260km^2 in the 1960's to 649km^2 in 1998. The nation-wide study projects a continuous increase expected to reach 884km^2 in the year 2030. The projected 250-300km^2 geographic growth is expected to be concentrated in a number of urban areas such as the central urban agglomerations of Lebanon (i.e. Greater Beirut and Mount Lebanon), Tripoli and other main cities such as Baalbek, Saida and Tyr, with the main bulk being concentrated around the cities rather than in the centre (CDR, 2005) (see Figure 4). Urban Expansion in Lebanon is concentrated in and around main coastal cities, between secondary cities and in the form of informal areas on the belts of cities.

- **Urbanization in and around main coastal cities:**
  In Lebanon, rapid urban expansion has mostly taken place along the (Mediterranean) coast of the country, stretching along 200km from the North to the South, and around major cities where most of the industrial and commercial centres are located. Developments stretching along the coast include large-scale reclamation projects (public and private leisure projects, dozens of marinas for leisure boats and fisheries), residential development projects, and waste water treatment plants (MOE, 2010). While most of these developments occur with limited consideration to environmental impact, violations of the public maritime domain are also significant.
- **Urbanization occurring between secondary cities and towns:**
  Urban expansion has not been occurring only in major cities and peri-urban areas around them (such as Beirut, Tripoli, Saida, Tyr), but also between secondary cities and towns (such as Zahle – Chtoura; Beirut to Bauchreyeh, Sin el Fil, Fanar, Zalka) (Ibid). Cities have been growing both vertically, with the incessant erection of high-rise residential buildings and towers, and horizontally encompassing surrounding lands and domains (see Box 3).

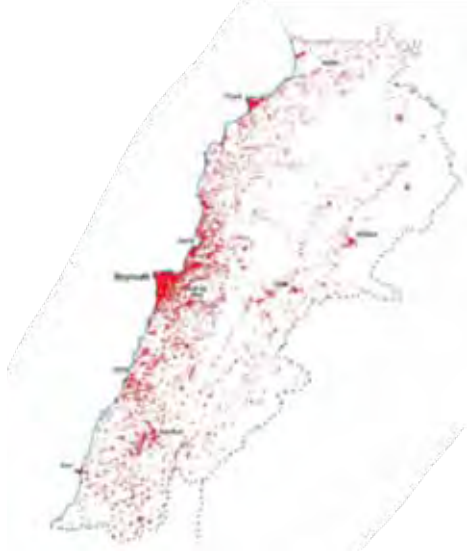
[2] *Misery Belt is a term commonly used by the media and the Lebanese political figures to designate the informal settlements that developed around Beirut city centre in the southern suburbs. The term refers to the miserable conditions characterizing the low-income housing of Beirut suburbs ranging from environmental degradation, low hygienic conditions, over-crowdedness, and other dreadful living conditions.*

Figure 3: *T*he Distribution of Major Cities and Towns in Lebanon

Figure 4: Urban Concentrations in Lebanon

Construction in 1963

Construction in 1998



Source: CDR, 2005

- **Urban expansion occurring in the form of informal areas developed around major cities since the civil war:** These informal areas are inhabited by Lebanese population who were displaced from their areas of origin or by refugees, mainly Palestinian refugees and smaller refugee communities (such as the Kurdish). Refugee camps, of which remains 12 today housing Palestinian refugees in Lebanon, have been witnessing both vertical expansion as well as horizontal 'spill-over' around some of them, resulting in the development of informal areas known as Adjacent Areas.

Urban expansion in Lebanon has been occurring without any guiding strategies or plans, merging the cities into single large agglomerations, threatening arable lands and biodiversity, creating transportation and traffic problems and increasing the challenge of infrastructure and services provision. Furthermore, new architectural styles and new housing forms have sprung up in recent decades to replace traditional shapes and structures. Despite some legislation to protect historic buildings, the systematic transformation of Lebanon's architectural heritage is apparent in all major cities including Beirut, Tripoli and Saida (MOE, 2010).

The most rapid urbanization occurs in and around major coastal cities in Lebanon. The city of Tripoli expanded around the historic core to the left and right banks of the Abu Ali River.

Urbanization could take the form of urban sprawl on agriculture lands as shown in Wadi Zeineh along the Saida Road in the South. Urban sprawl raises the cost of basic urban service and infrastructure provision.

Urban expansion also occurs between secondary cities and towns, merging them into larger agglomerations such as the case of Beirut – Dora – Zalka stretch, showing Ashrafiye in the background.

Population growth in Tripoli led to the expansion of the old city into the areas of Bassatine, and al-Raml on the left bank of Abu Ali River and into al-Kobbeh and al-Tell, and the area of Abu Samra on the right banks of the river. As the local Tripolitanian bourgeoisie moved from the inner city into the new quarters, lower income residents of the city and other rural migrants replaced them. According to the municipality of Tripoli, almost 80% of residents in the old city are tenants and have been living there for at least 30 years.

Box 3:

Patterns of Urban Expansion in Lebanon

Cities in Lebanon are growing both horizontally and vertically. For example developers are erecting buildings in vacant plots (often used as paid parking areas) or in lieu of old buildings which are torn down and replaced with new housing units. Meanwhile, cities are also expanding horizontally; in Lebanon, this urban expansion could be categorized into three forms: circular, linear and leap-frog. Circular (or concentric) expansion is very visible around major cities and towns including Beirut, Baalbeck, Zahle, Marjayoun. Linear expansion (or ribbon construction) occurs when towns and villages expand along major roads, creating long rows of residential housing units and commercial centres on both sides of a road. Noteworthy examples include the coastal highway (from Beirut to Jounieh and from Beirut to Sarafand) and selected inland regions (from Tripoli to Halba and from Zaharni to Nabateyeh). Leap-frog development occurs when developers build new residences some distance from an existing urban area, bypassing vacant parcels located closer to the city. Examples include Mechref Village (Mechref), Pine Park (Roumieh) and Beit Misk (Bhersaf). Horizontal growth is happening at the expense of agricultural fields (e.g. al Basatine in Tripoli), forested areas (e.g. Metn) and other natural areas of unique environmental significance (Faytroun in Kessrouan and Fnaideq in Akkar).

Source: MOE, 2010.

Many of the historic buildings and landmarks in cities are left for degeneration or are destroyed to allow for the construction of new higher buildings, picture from Bashoura on the borders of Beirut Down Town.

1.5 URBAN POLICIES

Historically, the Lebanese State demonstrates a laissez-faire approach in the urban domain and its intervention in the urban sector was, and continues to be, minimal. Except for land regulation, investments in infrastructure and formulation of building codes, the State has shied away from developing a comprehensive urban policy that regulates the erratic growth of urban areas in Lebanon.

Aside from the first proposals submitted during the French Mandate in 1932[3] , the State has been less successful in the attempts to create a framework for urban policy especially for major cities such as Beirut and Tripoli. The first attempt that tackled the growth of Beirut was drafted in 1943 and became known as the 'First Ecochard Plan' named after the leading French architect and urban planner Michel Ecochard. This plan aimed at incorporating modern planning as the main approach to revitalize the city, and aspired at placing the State as well as municipalities as the primary decision-makers. The second attempt was in 1964 and was mistakenly[4] named the 'Second Ecochard Plan' (Ghorayeb, 1998). What differs between both endeavors, that were never fully implemented, is that the latter shifted the focus from Municipal Beirut to include Greater Beirut and provided an opportunity for public and private sectors to jointly work on the plan. However, the failure in formulating an urban policy and strategy was attributed to pressures exerted from private developers who wanted and succeeded in having 'fewer restrictions and more room for exploitation' (Salam, 1998).

After the end of the civil war in 1990, the Government concentrated its post-war recovery and reconstruction efforts on physical infrastructure and large-scale projects rather than on socio-economic recovery and development. Two national plans were developed for this end, the National Emergency Reconstruction Plan (NERP) and the Plan Horizon 2000, managed by the Council of Development and Reconstruction (CDR)[5]. A large component of Plan Horizon 2000 was embodied in the urban regeneration of Beirut's central district through a privately set company known with the acronym "Solidere", developed by former PM Rafik Hariri. The company succeeded in rebuilding a state of the art business district but was marred with a number of criticisms. Solidere's work was embodied in the supremacy it offered to the globalized private sector to control urban spaces and contribute to the modernization of the largely historical area of Beirut (Larkin, 2009). The alarming and supreme domination of the private sector was accompanied by an exclusion of the previous owners. Other critiques of Beirut's urban reconstruction build on the neo-liberal assumption and describe the continuous erosion of public space and the amnesiac erasure of the city's conflictual recent history (Ibid). All of the previously mentioned elements contributed to designing a heart of the city of Beirut that is solely catered for middle to high and high income brackets.

A recent attempt to provide policy directions that respond to the challenges of a highly urbanized context is the 2005 National Physical Master Plan for the Lebanese Territory (NPMPLT) prepared by CDR. The Plan addresses the management of land use and aims at promoting unity, equitable regional development, sustainable use of resources, economic productivity, social development, environmental protection, and heritage conservation. It highlights the need to develop planning protection in the regions (80-90% of the territory) and adequate policies to ensure future housing developments that are appropriately integrated into the existing urban fabric. In addition, it presents a number of urban programs, including a coordinated program of infrastructure development in areas that are being rapidly absorbed by Beirut's southern urban spread (CDR, 2005). For an illustration of the urban organization proposed by the NPMPLT, see Figure 5. In 2009, a decree was issued that allocated the

[3] It was the first serious attempt to produce an urban master plan and was prepared by Danger in 1932. Though never implemented, the Danger plan asserted the three major axes of circulation as axes of expansion of the growing city: Beirut-Tripoli to the North, Beirut-Sidon to the South and Beirut-Damascus to the East.

[4] Ecochard participated at first in the development of the 1964 plan; however he left when the plan took a trail that he disapproved.

[5] The NERP and the Plan Horizon 2000, complemented later by Plan Horizon 2005, presented multi-sector programs that included more than 100 projects, some of which still on-going, to be essentially financed by foreign and internal loans. Another aspect of the plans was the privatization of major industries; numerous contracts were awarded in important industries such as energy, telecommunications, electricity, airports and roads. The last and perhaps most significant aspect of Plan Horizon 2000 was economic stimulus via foreign direct investment (CDR, 1992).

National Physical Master Plan for the Lebanese Territory as a 'general guiding framework' to urban planning and land use in Lebanon to be abided by all actors involved in planning including governmental institutions and public agencies. It should be mentioned however that the Master Plan only provides guidelines and recommendations that still need to be reinforced by means of mandatory laws and relevant policies and regulations.

Another relevant attempt with an impact on cities and its people lies in the formulation of the National Social Development Strategy[6] in 2007 (published in 2011), which aims at improving the social welfare of the Lebanese population through improving social safety nets. It aspires at enhancing living environments in concentrated urbanized areas and promoting home ownership among low-income families through the extension of credit facilities and other tools within the private sector. In addition to environmental protection and heritage conservation, the strategy aims at promoting public parks, libraries, sports facilities and transport networks. It also aims at protecting rights through enhanced legislation and at fostering public utilization of unused lands through changing building codes. It intends to formulate a housing policy directed by the Ministry of Social Affairs (MOSA) to enable it to see the distribution of housing loans in a more regionally equitable fashion. Further to that, in order to upgrade the living standards in urban slums, the plan focuses on extending basic services such as water

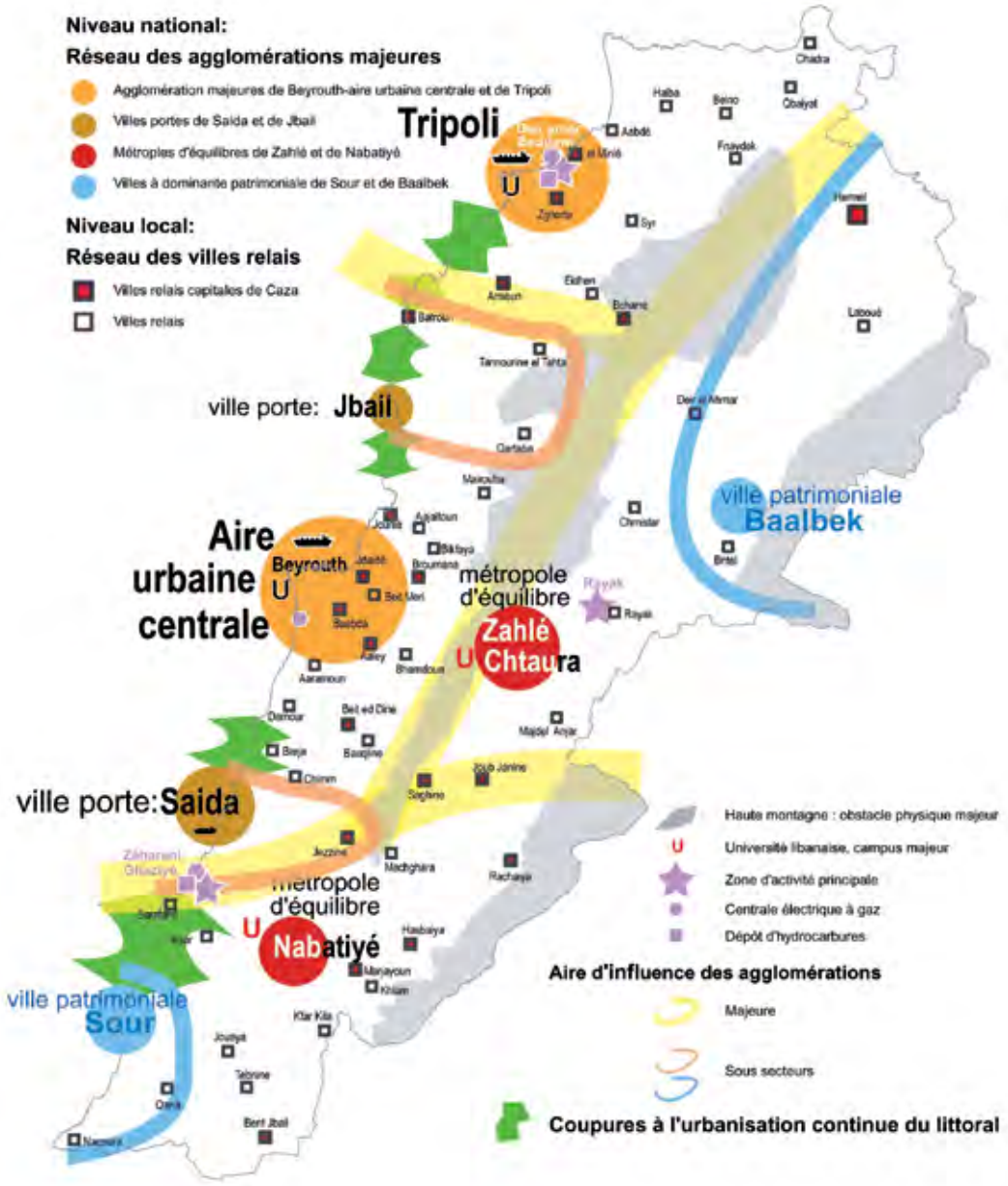


Figure 5: Urban Structure Principle Proposed by the NPMPLT
Source: CDR, 2005

[6] The National Social Development Strategy was drafted as part of the Social Action Plan Framework developed by the Government of Lebanon in 2007. The plan recognizes the need to integrate social development in a strategic and inclusive manner within development projects to improve social indicators.

Urban development at the expense of natural and mountainous areas, such as the case of al Matn in Mount Lebanon.

and sanitation and improving the physical conditions of existing buildings. Finally, the strategy looks at reviewing building restrictions in Palestinian camps, providing infrastructure, clarifying ownership ambiguities within them and reforming current legislative barriers to Palestinian ownership (UNDP, 2009). Although the National Development Strategy represented a first comprehensive attempt to address social policies in Lebanon, it has not yet been endorsed by the Council of Ministers.[7]

Urban development on agricultural lands, such as the case of Saida.

[7] The Strategy was presented during a workshop organized by the Ministry of Social Affairs and UNDP in September 2010. During the following months, the internal political situation started to deteriorate and reached its climax with the collapse of the government interrupting all ministries' related plans.

Key players in urban planning:
The above has shown how the State policies towards urban planning and urban development have been minimalistic. Still, there are a number of key players in urban planning and development in Lebanon that work within the previously mentioned policy frameworks. The Directorate General of Urbanism (DGU), established in 1959, was created as part of the Ministry of Public Works and Transport and was commissioned to draft a Master Plan for urban and regional development. The plan has succeeded in developing several localized plans in the area of land use and management to account for the large growth of urban areas; however, failed to address the national urban challenges that kept arising along with the unregulated urban sprawl. The DGU prepares and reviews master plans all over Lebanon except in Beirut and Tripoli and the three unions of municipalities (Jbeil, Kesrouan and Metn) that have urban planning / engineering units. In general, a significant number of regional master plans are prepared by architects or engineers who do not necessarily have prior experience or competencies in urban planning (MOE, 2010). These master plans are presented, only once finalized, to municipalities for approval or negotiation. Although municipalities are supposed to play a key role in developing and implementing urban projects, they fall short in terms of their financial and human resources which impede their roles as basic-level administrations. Furthermore, many towns in Lebanon have no municipal council and therefore resort to the *Kaemakam* for administrative issues and the regional department of urban planning for urban planning issues (Ibid). Urban master plans covered only 16.2% of the Lebanese territory in 2004, most of which were concentrated along the coast, with the remaining areas left as unplanned or even non-surveyed (see Box 4).

Other institutions working at the central/ governmental level are the Higher Council for Urban Planning (HCUP) and the Council for Development and Reconstruction (CDR). The HCUP includes representatives from several ministries as well as specialists in urbanization, and is responsible for advancing recommendations that guide urban planning at national level. As for the CDR, it was founded in 1977 to take charge of reconstruction and rehabilitation projects. It was assigned the task of developing a National Physical Master Plan for the Lebanese Territory to regulate urban growth. For a summary of the key actors involved in urban planning and land management in Lebanon, refer to Table 4 below.

Whilst a considerable body of institutions are available to come up with and implement small and large scale urban projects, several obstacles are faced such as:

- the absence of overarching guiding policies;
- a persistently centralized and conventional approach to planning;
- limited financial resources and weak governance and institutional capacities;
- high reliance on contracted architects and engineers to carry out planning leaving little or no room for local stakeholders to participate in planning and implementation.

The centralized control of "planning" with its top-bottom approach and the marginalization of the municipalities have not only lead to the non-realization of these plans but have also drastically limited the opportunities for planners to get involved in the public sector. According to the MOE (2010), urban plans in Lebanon focus exclusively on the physical planning and do not approach urban planning from a strategic perspective or adequately address urban issues such as sustainability, livability, accessibility and environmental, spatial and equity issues. In addition, the urban planning system is not immune to political interference and contestations and is often geared towards maximizing land use coefficients. As a result, master plans usually deal with plans and zoning only from the perspective of permissible built-up areas and total allowable height with little regard to other vital components (such as position of building in lots and distribution of land uses and activities) (Ibid).

Table 4: Distribution of Responsibilities Related to Land Management in Lebanon

Responsibility / Party	MOPWT (DGU)	MOE	MOA	MOC (DGA)	MOEW	MOIM	CDR	Religious Orders
National land use master planning	x						x	
Protected areas management		x	x					
Forest management		x	x					
Urban planning regulations	x							
Public maritime domain (coastal zone)	x							
Protection of cultural heritage				x				x
Protection of rivers and waterways	x	x			x			
Management of religious estates								x
Quarry sector		x			x	x		

Source: MOE, 2010

Box 4:

Areas Covered by Master Plans in Lebanon

In 2000, urban master plans covered 10.3 percent of the Lebanese territory (CERMOC, 2000 in SOER, 2001). Subsequent analysis showed that this extent only covered urban master plans that have been both approved by the Higher Council of urban Planning (HCUP) and decreed by the Council of Ministers (COM), and issued during the period 1960 – 2000. A study conducted in 2004 identified additional urban master plans that were approved by the HCUP but not yet decreed by the COM. They cover 614.3 km². Therefore the total zoning extent in Lebanon until 2004 covered about 16.2 percent of the territory or 1,693 km². The remaining area (83.8%) is unplanned (مناطق غير مصنفة) and only partially surveyed (أراضي غير مسوحة). Urban master plans are primarily concentrated along the coastal zone and large agglomerations. Unplanned areas are administered and managed by blanket regulations that rely mainly on two factors: lot coverage and floor-area-ratio. Areas that have not been surveyed or demarcated account for about 50 percent of the country (30% demarcated but not surveyed and 20% neither demarcataed nor surveyed and still under TABO transaction log used by the Ottomans); these rely on very approximate maps most of which were drawn many decades ago based on aerial photos and with a high margin of error.

Source: MOE, 2010.

Urban development around major historic sites and heritage areas, such as the case of the old city and the Citadel in Tripoli.

Tyr or Sour has become a UNESCO World Heritage Site since 1984. Threats to Tyr's ancient cultural heritage include development pressures followed by the illegal antiquities trade. Illegal constructions in the vicinity of the archeological sites in Tyr have not stopped since the years of the civil war, most recently occurring in 2011 as shown with some new buildings within the archeological site in the picture

CHAPTER 2

Since the end of the Lebanese Civil War in 1990, the port of Beirut has gone through a major restoration and expansion program with the rehabilitation of existing port facilities, the construction of new administration buildings and a new container terminal. The Port has been selected as a transshipment hub for the 2nd and 3rd largest container shipping companies in the world.

THE GROWING ECONOMIC ROLE OF CITIES

I. SERVICE ECONOMY
II. INFORMAL ECONOMY
III. REAL ESTATE AND CONSTRUCTION

2. THE GROWING ECONOMIC ROLE OF CITIES

Ongoing political instability since the assassination of the former Prime Minister Rafik Hariri in 2005 and the Israeli's attack in 2006 has been a major barrier to the country's economic development. In 2006, after a promising start and a predicted GDP growth of 6% for the year, no real GDP growth was recorded largely as a result of the Israeli attack on Lebanon and the devastating impacts it had on the national economic welfare (UNDP, 2008). Currently, Lebanon has one of the highest debt-to-GDP ratios in the world. Net public debt was $29.5 billion in 2002 (158% of GDP) and $39 billion in 2007. Debt service payments came to 16% in 2002 and 13.2% in 2007. Lebanon also suffers from a chronic trade deficit (around $9 billion in 2007, approximately 34% of Lebanon's GDP). The export-to-import ratio was 23.8% in 2007. This naturally impacts on the country's balance of payments (Ibid). In order to enhance the economic role of cities, the National Physical Master Plan for the Lebanese Territory proposed an arrangement of economic activities shown in Figure 6. However such proposal still needs reinforcing laws, policies and projects.

Lebanon's economy is significantly a liberalized economy that relies heavily on the private sector and is geared towards the service economy. Lebanon has been committed to additional treaties with Arab and European countries mostly to benefit its private sector, in particular the agricultural, industrial and services sectors (Ibid).

2.1 SERVICE ECONOMY

In Lebanon, the urban economy is dominated by the service sector where most of the country's working force is employed (41.6%), followed by trade (22.6%), industry (13.8%), and agriculture (7.2%). Beirut in particular, which comprises one third of the total population in Lebanon, contributes to roughly

Figure 6: Economic Development Principles Proposed by the NPMPLT
Source: CDR, 2005

In a context of a liberal service economy, real estate development and construction in cities attract the highest investments in Lebanon.

The historic souqs of Tripoli, maintained mostly by individual and private initiatives from shop owners.

75% of the total country economy (World Bank, 2008). The service sector takes a significant share in the capital city, embracing 52.4% of the working force. Commerce and tourism are two of the most important subsectors, with the former owing its success to Beirut Port, considered as the foremost trading point in the Eastern Mediterranean region.

Most of the Lebanese hotels, restaurants, and resorts are located on the sea shore and in the highly dense urbanized areas such as Beirut, Jounieh, and Tyre, directly contributing to modeling the current urban economy (see Figure 7). Tourism is an asset that Lebanon can rely on to increase its competitiveness in the international market. Lebanon holds a privileged geographical location and a strategic position in the Mediterranean Sea, which confers it a suitable climate for tourism at all four seasons. Tourism constitutes around 20% of the country's GDP; however, it is bounded to the national political and security situation and is very vulnerable to regional politics and conflicts. In 2011, the instability in Lebanon and the region have caused severe and prompt impact on all tourism activities shown in the drop of tourists visiting Lebanon, which directly affects the country's economy.

The financial services constitute another branch of the service sectors, notably with reference to insurance, commercial and investment banking[8] . The Lebanese banking sector witnessed a notable growth in the post-war period, whereby total deposits increased by 27.4 billion USD from 1992 till 1999. Also, the banking system opens up the gate for capital inflow mainly from the Arab Gulf countries which directly contributes to national development.

Figure 7: Most Visited Tourist Sites in Lebanon
Source: CAS, 2008

[8] *Source: http://www.lebanonembassyus.org/country_lebanon/economy.html*

In addition to residential buildings and projects, most of the Lebanese hotels, restaurants and resorts are located in highly urbanized areas along the sea shore.

2.2 INFORMAL ECONOMY

In addition to having a service-based economy, cities in Lebanon have a sizeable informal economy. In the post-war period, the size of the informal economy in Lebanon was estimated at 34.1% of the total GNP[9] for the year 1999/2000, ranking 7th in Asia (Schneider, 2002). The current situation in Lebanon that 'fuels the creation of a chaotic socio-economic environment' is foreseen to sustain the occurrence and significance of the informal economy, which continues to make a major contribution to the national GDP (Rossis, 2010). Informal economy includes all economic activities and jobs that are outside the realm of state regulation (licensing, taxing, etc. do not apply) in addition to illegal activities (smuggling, drugs, trafficking etc). In Lebanon, informal economic activities are mainly reflected in informal employment and in the commerce sector that do not abide by licensing and paying taxes (Ibid).

The roots of the informal economy in Lebanon could be traced back to the last century, where the long fermentations of Lebanon's past formulated and cemented the ingredients of the potentially embedded informality in the country, which not only affects the market and the economy but also the civic system and society as a whole (Denoeux 1993, Rossis, 2010). According to the study conducted by Rossis (2010) on the benefits and dangers of informal economy in Lebanon, one contributing factor to this economy is the bureaucratic environment as

Street vendors in the historic core of Tripoli.

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[9] *Gross National Product (GNP) is the market value of all products and services produced in one year by labor and property supplied by the residents of a country. Unlike Gross Domestic Product (GDP), which defines production based on the geographical location of production, GNP allocates production based on ownership.*

shaped by the governmental organization and course of action and the deficit of civil attention (attributed to the public institutions that serve the population). Another factor relates to the 'deeply entrenched informal practices' into the mindset of the Lebanese society, where by the majority of the Lebanese society, even if it demonstrates considerable disapproval towards the undesirable products of informality, acknowledges that the patterns in the social organization are rather unlikely to change if current political and economic trends continue; as a result, people are increasingly obliged to resort to the informal economy (Ibid).

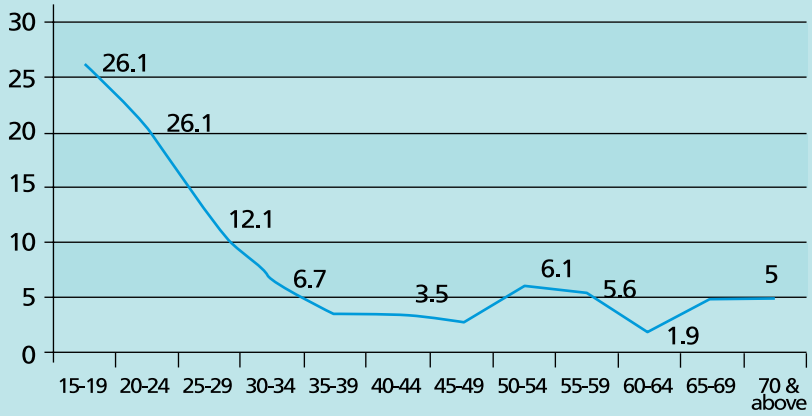
The rapid urbanization that occurred in the 50s, 60s and 70s had promoted the multiplication of informal associations and networks in Lebanon, which played a stabilizing role in sustaining the operation of the informal economy (Denoeux, 1993). More recently, informal economic activity was attributed to corruption, as this involves massive economic transactions on a daily basis with an enormous impact at both microeconomic and macroeconomic levels, and also to the continuous presence of informal networks that facilitate illegal activities as well (Rossis, 2010).

The high rate of unemployment is a main driving force that stimulates the oversupply of workers into the informal economy (see Figure 8). *In addition,* most of the Lebanese small entrepreneurs are driven by economic and social barriers that make it favorable and even compulsory for them to rely on informal economy. For instance, no incentives are properly put in place to motivate registering establishments and paving the way to the more formalized type of economy. This is further accentuated by the high tax rates and the absence of tax breaks relative to small businesses. Consequently, entrepreneurs rely on informal mechanisms in order to maximize their profits.

Informal fishing activities in Dora.

As part of its the Cultural Heritage and Urban Development (CHUD) Project, the Government of Lebanon undertook an initiative to relocate the informal vegetable market in the historic city of Tripoli, including some street vendors, to a platform covering River Abu Ali Channel.

Figure 8 : Unemployment for Men and Women by Age



Source: CAS, 2007

Constructions along the sea front in Ain el Mraisseh

Old and new constructions along the bank of Abu Ali River in Tripoli

Illegal constructions built in 2011 around archeological sites and landmarks in Tyr

2.3 REAL ESTATE AND CONSTRUCTION

Real estate development, and in particular property construction, has been mostly seen through the lens of a neoliberal ideology, with the private sector and market forces playing the central role in designing the urban condition. According to the MOE (2010), demand for property grew exponentially in the last decade and Lebanon witnessed record investments in its real estate sector and construction from nationals, expatriates and foreigners, who feared the global financial instability. Foreign investment is driven by the limited restrictions imposed by the Government and the system of taxation that does not enforce higher taxes on foreigners investing in Lebanon. Although the recent changes and revolutions taking place in the Arab Countries have brought real estate investment and prices slightly down, the market is still guaranteed to make high profits.

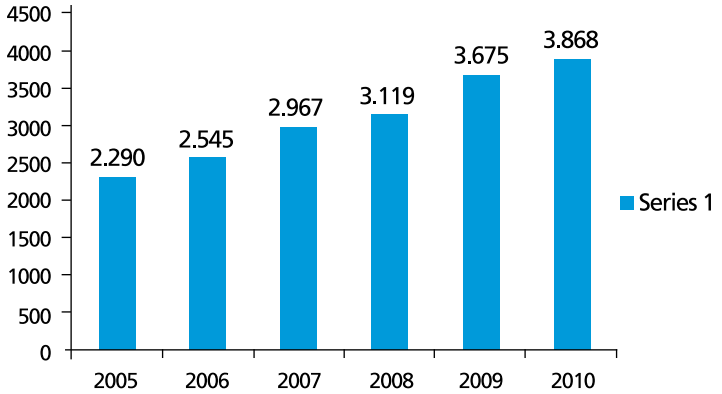
Investment in the construction and real estate sectors is concentrated mostly in Mount Lebanon (along the coast) and in Beirut (see Figure 9 and Figure 10) (Lowry, 2010). The total surface area of construction permits issued in Lebanon between 2007 and 2008 leaped from 7.9 million to 14.2 million m²; in Mount Lebanon alone, the area of construction permits almost doubled from 4.3 million to 8.4 million m² (MOE, 2010). A recent figure suggests that around 11.5 million m² are still reserved for construction in addition to 5,376 buildings being under construction, compared to 2,931 buildings in 2007 (Lynch, 2010; Qiblawi, 2010). Furthermore, the *Banque du Liban* statistics confirms such increase in construction seen in cement deliveries continuously increasing on yearly basis since 2006.

However, in the absence of urban policies and regulations to guide large scale constructions, Lebanon's redevelopment has been criticized as being volatile. The consequences have embraced grievous implications on Lebanon's physical and natural environment and its infrastructure both of which have a detrimental effect on the population's quality of life (Frommherz-Hassib, 2010). According to the MOE (2010), Lebanon is too small to sustain the current constructions (roads, housing, commercial development, and sea reclamation projects) on the medium to long term without causing irreversible damage to its natural resources and landscapes. Noteworthy

Architectural heritage buildings and landmarks of Beirut are overshadowed, even replaced, by high rise buildings and towers. In the Down Town area, the construction of new gated residential communities is taking place including three that comprise 185 apartments in Wadi Abu Jmil alone.

is the impact these constructions entailed on the historical and cultural landscape of cities such as Beirut and Tripoli, where massive destructions irreversibly demolished a cultural heritage, that is now lost in modern architecture (Fielding-Smith, 2010). Given its drastic immersion in construction activities, Lebanon lies at the hub of an urban sprawl crisis that deserves careful analysis and monitoring on the part of key stakeholders.

Figure 9 : Cement Deliveries *(First nine months for each year - in 1,000s of tons)*



Source: Banque du Liban, 2010

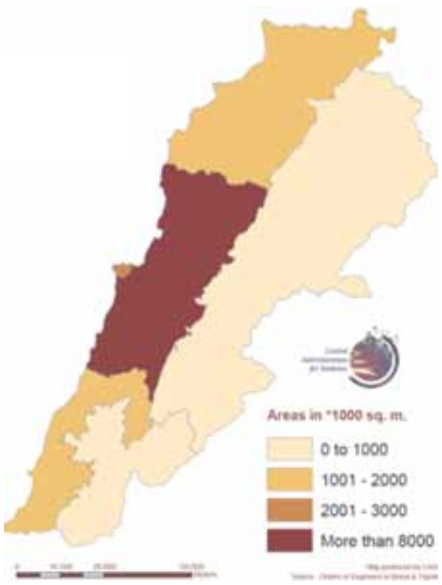
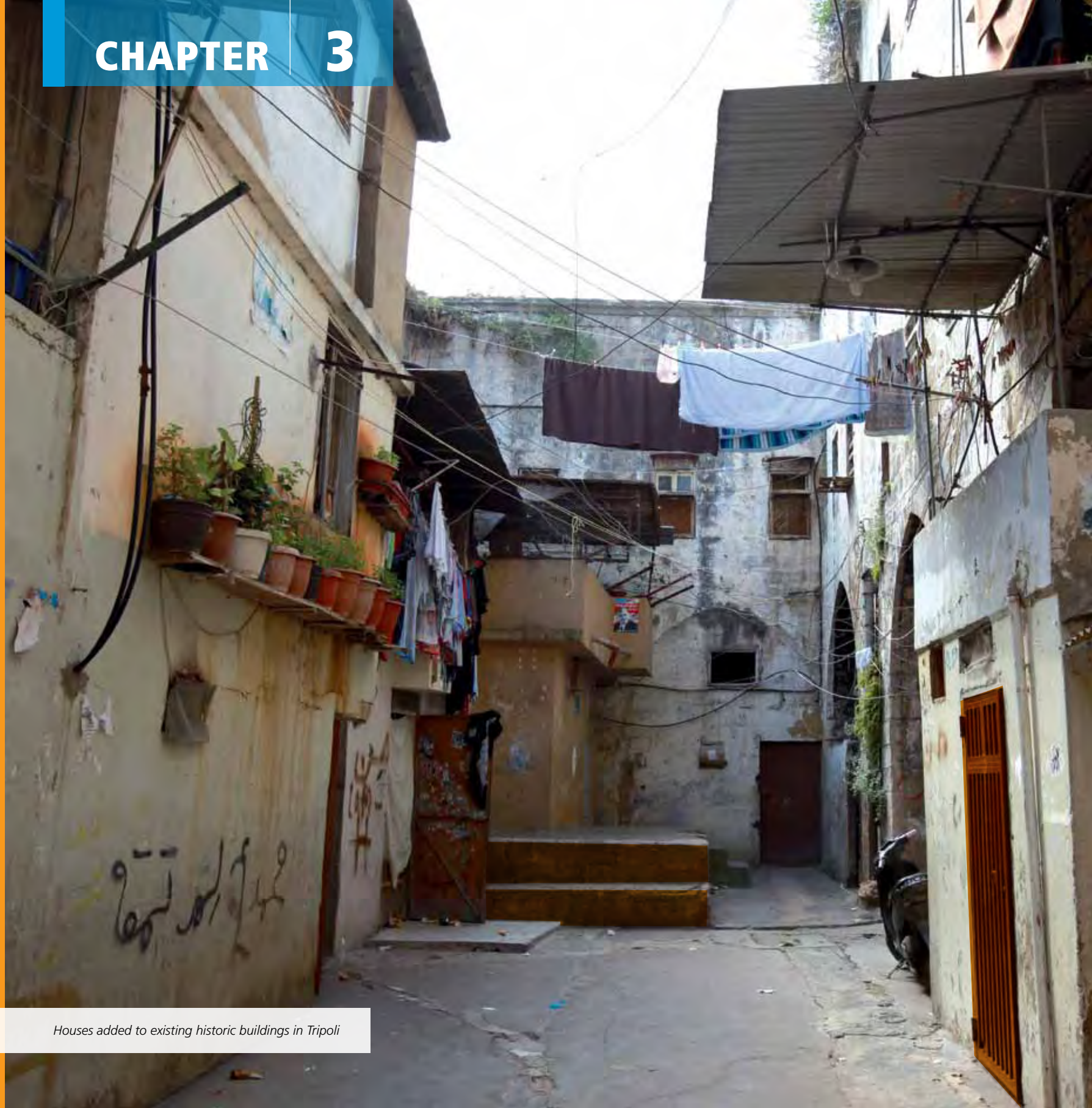


Figure 10: Construction Permits by Area per Mohafazat
Source: CAS, 2008

Current laws and regulations related to urban planning (and those related to water, forests, protected environment) do not protect mountains or recognize their value as a system, threatening heritage, landscape, biodiversity and water sources. In range lands in Lebanon, the main driving force to habitat loss or change is urbanization. The urban expansion on the mountains is evidence from the Northern entrance to Beirut, as shown in the picture.


60%

CHAPTER 3



Houses added to existing historic buildings in Tripoli

URBAN DEVELOPMENT AND HOUSING CONDITIONS

I. THE HOUSING SECTOR

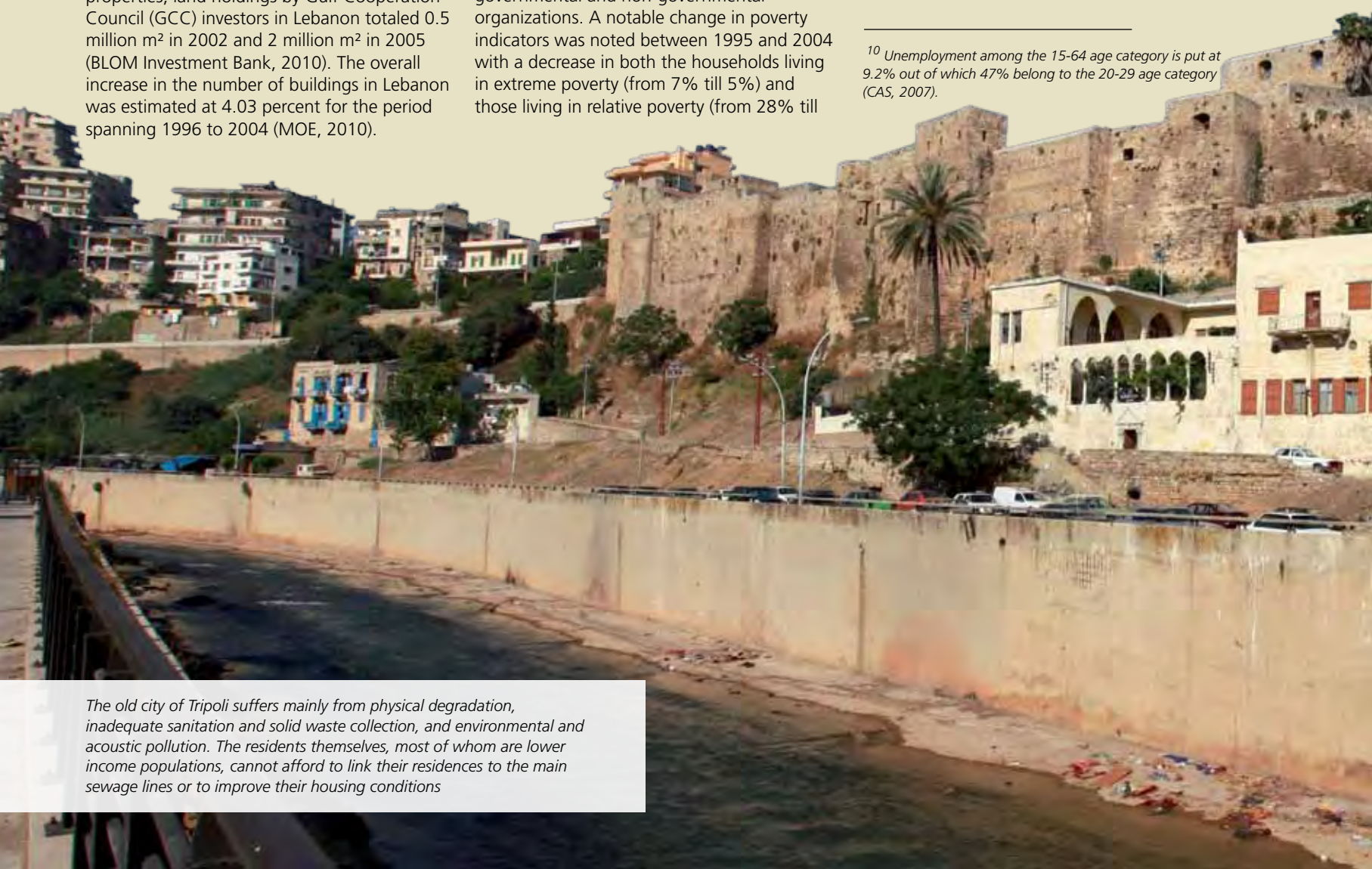
II. INFORMAL URBAN AREAS

3. URBAN DEVELOPMENT AND HOUSING CONDITIONS

The reconstruction activities in the aftermath of the civil war have stabilized the country's economy through upgrading the infrastructure and attracting investments from nationals and foreigners, mainly Arab citizens. Most of the investments geared towards urban development occur in the form of large scale developments; for instance around fifty percent of total Arab foreign direct investment in Lebanon targeted large property developments in 2007/2008 (ESCWA, 2008). To give some examples on the size of such properties, land holdings by Gulf Cooperation Council (GCC) investors in Lebanon totaled 0.5 million m² in 2002 and 2 million m² in 2005 (BLOM Investment Bank, 2010). The overall increase in the number of buildings in Lebanon was estimated at 4.03 percent for the period spanning 1996 to 2004 (MOE, 2010).

However, the internal upheavals and the unstable political situation veiling the country since 2005, have worsened the physical, social, and economic fabrics, contributing to widening the gap between the rich and the poor, between rural and urban areas and within given areas as well. Urban poverty and its causes have not been extensively studied in Lebanon; one can rather find abundant information on overall poverty in country reports and national studies conducted by UN agencies, ministries, and other international governmental and non-governmental organizations. A notable change in poverty indicators was noted between 1995 and 2004 with a decrease in both the households living in extreme poverty (from 7% till 5%) and those living in relative poverty (from 28% till 18%) (MOSA and UNDP, 2004). This decrease is primarily related to an improvement in the sectors of housing, water and sewerage, and education. Income, however, scored a notable deterioration, paralleled with the increase in unemployment[10] and the decrease in the purchasing power (Ibid). Most poor urban pockets are located in the vicinities of major cities in the suburbs of Beirut, Tripoli and Saida, all of which housing the highest number of the Lebanese poor.

[10] Unemployment among the 15-64 age category is put at 9.2% out of which 47% belong to the 20-29 age category (CAS, 2007).



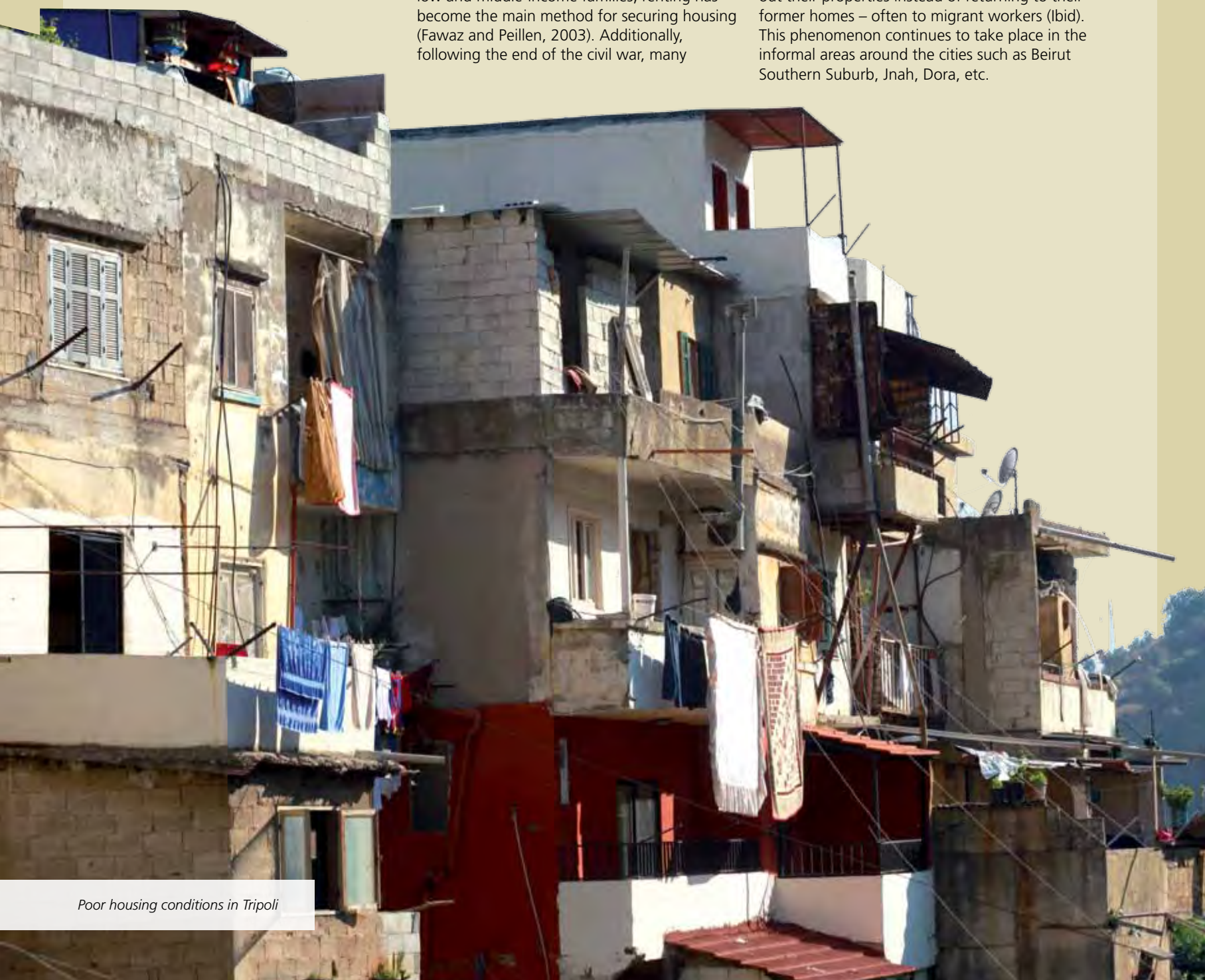
The old city of Tripoli suffers mainly from physical degradation, inadequate sanitation and solid waste collection, and environmental and acoustic pollution. The residents themselves, most of whom are lower income populations, cannot afford to link their residences to the main sewage lines or to improve their housing conditions

3.1 THE HOUSING SECTOR

The housing market has undergone substantial changes along the urbanization process and mostly driven by an increase in housing demands especially post the civil war that ended in 1990. According to the MOE (2010), the overall increase in the number of residential units in Lebanon from 1996 to 2004 was estimated at 4.03 percent. Subsequent to the rural-urban migration and the flow of migrants and foreign workers who settled in the outskirts of large agglomerations and due to the influx of foreign investment, real estate prices have skyrocketed in and around Lebanese cities. Although this has created increased demand on housing, it also made owning a residence in urban areas very problematic especially to low and middle-income families. This comes in an environment where social housing and governmental policies towards housing the low income families have been minimalistic. The governmental policy has so far been limited to regulating the provision of housing loans to low-middle income families. There are currently two main public institutions that offer housing facilities: the National Institute for Housing (NIH) and the Directorate General of Cooperatives (DGC). The former offers housing loans to families of low socio-economic statuses, provided that applicants have a stable job with a fixed income. This poses a major challenge to the low-waged and low-skilled labor force, as they do not meet the terms and conditions of the NIH. The DGC on the other hand, aims at forming housing cooperatives to improve the housing conditions of low-income categories. Nevertheless, housing cooperatives have so far failed to become major players in the social housing sector due to some challenges pertaining to the lack of technical expertise as well as a shortage in human and financial resources.

New residential areas in Saida have expanded around the historic core and market of the city. Today and under the current real estate and housing market, smaller apartments between 100 and 250m² are the most selling, as in the case of the rest of the major cities in Lebanon, and for an average price of USD 500,000 to USD 800,000.

With the ownership of decent shelter/house becoming exceptionally challenging to the low and middle-income families, renting has become the main method for securing housing (Fawaz and Peillen, 2003). Additionally, following the end of the civil war, many original owners in the declining war-affected areas of Beirut and its suburbs opted to rent out their properties instead of returning to their former homes – often to migrant workers (Ibid). This phenomenon continues to take place in the informal areas around the cities such as Beirut Southern Suburb, Jnah, Dora, etc.



Poor housing conditions in Tripoli

3.2 INFORMAL URBAN AREAS

With an increased pressure on housing markets in cities and urban areas, informal settlements become the only affordable alternative to the low income families. These underserved urban areas have expanded since the arrival of rural migrants in the 50s and the internally displaced during the civil war (1975-1990). Informal settlements have often developed at the cities' fringes especially in Beirut and Tripoli, generally in violation to construction codes and planning regulations, which resulted in poorly constructed neighborhoods and slum-like areas. UN-HABITAT estimates that the 'slum' to urban population in Lebanon was around 50% in the year 2001 (UN-HABITAT, 2010). For an overview of slums in Beirut, refer to Box 5.

Urban underserved areas in and around main cities have multifaceted traits, accomodationg for people of various religions (i.e. Christian and Muslims in Beirut suburbs), nationalities and ethnicities. These areas house, in addition to Lebanese, Palestinian refugees and migrant workers coming from Egypt, Syria, Sri Lanka, Iraq, Sudan and others, who mostly live in small unfit houses. Environmental and housing conditions are generally precarious and highly variable; some structures are temporary, others are permanent buildings (Fawaz, and Peillen, 2003). Most of the residents in these areas suffer from low quality housing including a high level of humidity, inadequate access to basic urban services and infrastructure, lack of housing aeration, in addition to an absence of natural lighting. Most of the buildings are old structures usually left without any maintenance and repair[11].

The informal neighborhood of Hay el Tanak in Mina in the North lacks roads, access to water and sanitation and adequate housing. The land, once public, was recently sold to a private owner and residents were sentenced by court to leave their houses although they still live there.

Two housing projects developed by the Maronite and the Antoninian endowments (awkaf) to be long leased, mainly to their constituencies.

The Kobbeh housing project built by the Ministry of Displaced in the 1990s to house war- displaced families in Tripoli.

With the limited urban service provision by the State and in many instances by the municipalities, dwellers in the under-served urban areas have managed over time to develop self-sustaining mechanisms that permit them to access basic urban services. Many use informal ways to hook to the electricity network, sewage system or to access water.

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[11] Information on urban slums was drawn from a number of case studies mostly conducted in the outskirts of Beirut. These studies can be obtained from the following references:

- *Choueiry, N. and Khawaja, M. (2007). Displacement and Health Status in Low Income Women: Findings from a Population-Based Study in Greater Beirut. Journal of Immigrant and Refugee Studies Issue, 3:1, 1-13.*
- *Habib, R.R. Mahfoud, Z. Fawaz, M. Basma, S.H. and Yeretzian, J.S. (2008). Housing Quality and Ill Health in a Disadvantaged Urban Community. Journal of Public Health, 123, 174-181.*
- *Habib, R.R. Yassin, N. Ghanawy, J. Haddad, P. and Mahfoud, Z. (2010). Double Jeopardy: Assessing the Association between Internal Displacement, Housing Quality and Chronic Illness in a Low-Income Neighborhood, Journal of Public Health, 1-12.*
- *Makhoul, J. Abi Ghanem, D. and Ghanem, M. (2003). An Ethnographic Study of the Consequences of Social and Structural Forces on Children: the Case of two Low-Income Beirut Suburbs. Environment and Urbanization, 15: 2, 249, 260.*
- *Nuwayhid, I A, Usta, J, Makarem, M, Khudr, A and El-Zein, A. 2005. Health of Children Working in Small Urban Industrial Shops, Occupational and Environmental Medicine; 62:86–94.*

In the midst of these challenges pertaining to the urban setting, some groups of people find themselves more prone to internal and external shocks; those are the most vulnerable categories. They include the unemployed, those who cannot afford sustaining a stable monthly income to meet their basic and non-basic supplies; the displaced who lose their main source of income once they move from their initial areas of residence (i.e. informal slum dwellers); the elderly and the disabled who don't have any form of income generation activity or dedicated policies, in addition to the youth who drop out from schools to join the labor force and help their families increase their monthly revenues. Palestinian refugees also represent a vulnerable category of people, given the laws in practice (which ban them from working in most jobs and from owning properties or forming organizations) and to the scarcity of resources that are mirrored in the low-quality of living conditions. Around 53 percent of these refugees live in the 12 official camps serviced by UNRWA in Lebanon and a total of 42 informal areas known as gatherings (UNRWA, 2005) most of which distributed around major cities in Lebanon (see Box 6).

The reliance on social and political networks represents one of the ways low-income dwellers in particular resort to, in order to access elementary services that meet their basic needs of survival. For instance, families with low income rely on their kins for social and financial support and use their connections to find cheap and appropriate housing. Similarly, the urban poor solicit support from political parties, whom, in the

Box 5:

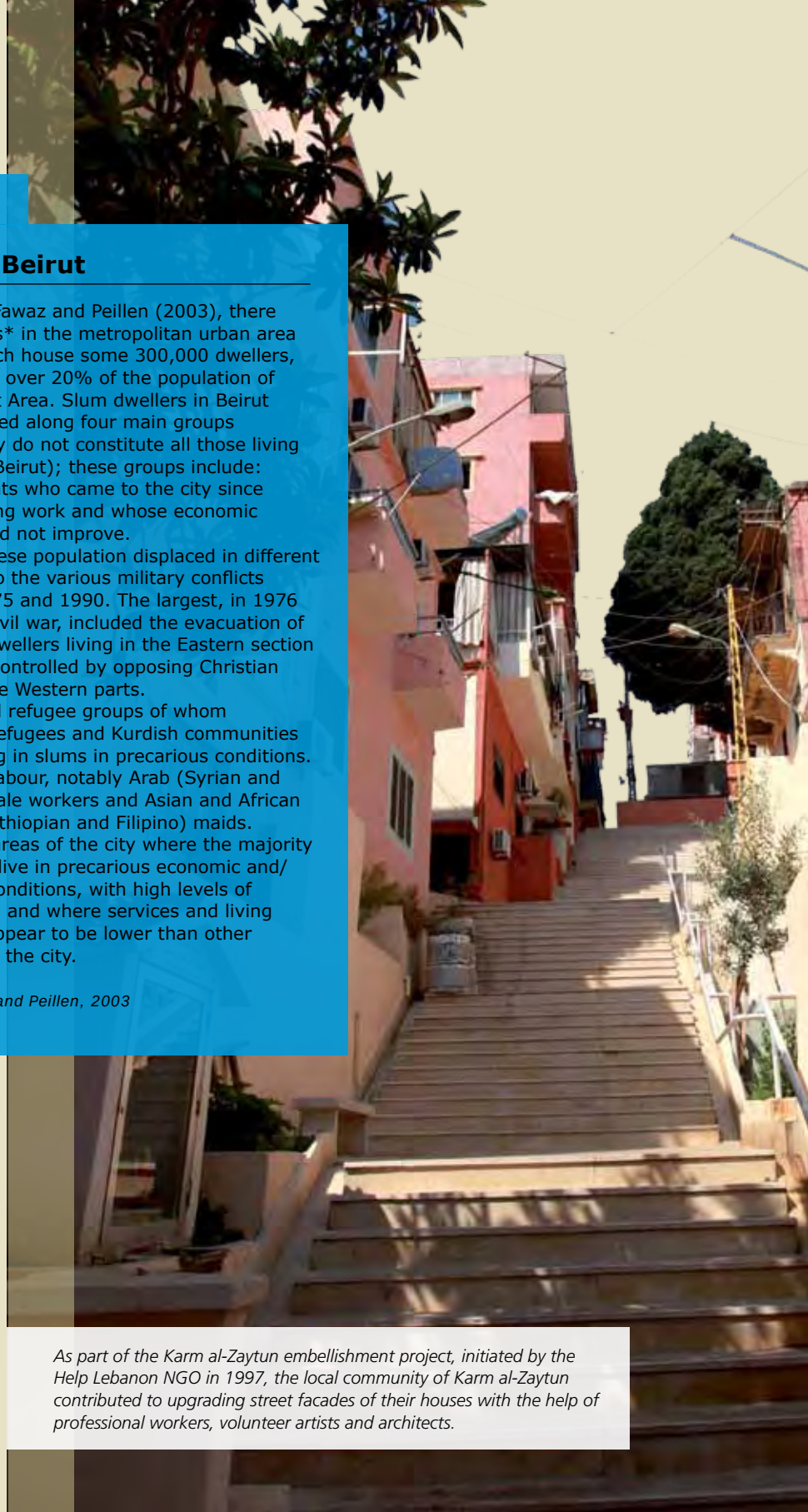
Slums of Beirut

According to Fawaz and Peillen (2003), there exist 24 slums* in the metropolitan urban area of Beirut, which house some 300,000 dwellers, compromising over 20% of the population of Greater Beirut Area. Slum dwellers in Beirut could be divided along four main groups (although they do not constitute all those living in poverty in Beirut); these groups include:

- Rural migrants who came to the city since 1950s seeking work and whose economic conditions did not improve.
- Other Lebanese population displaced in different waves due to the various military conflicts between 1975 and 1990. The largest, in 1976 during the civil war, included the evacuation of most slum dwellers living in the Eastern section of the city (controlled by opposing Christian militia) to the Western parts.
- International refugee groups of whom Palestinian refugees and Kurdish communities are still living in slums in precarious conditions.
- Intentional labour, notably Arab (Syrian and Egyptian) male workers and Asian and African (Sri-Lanki, Ethiopian and Filipino) maids.

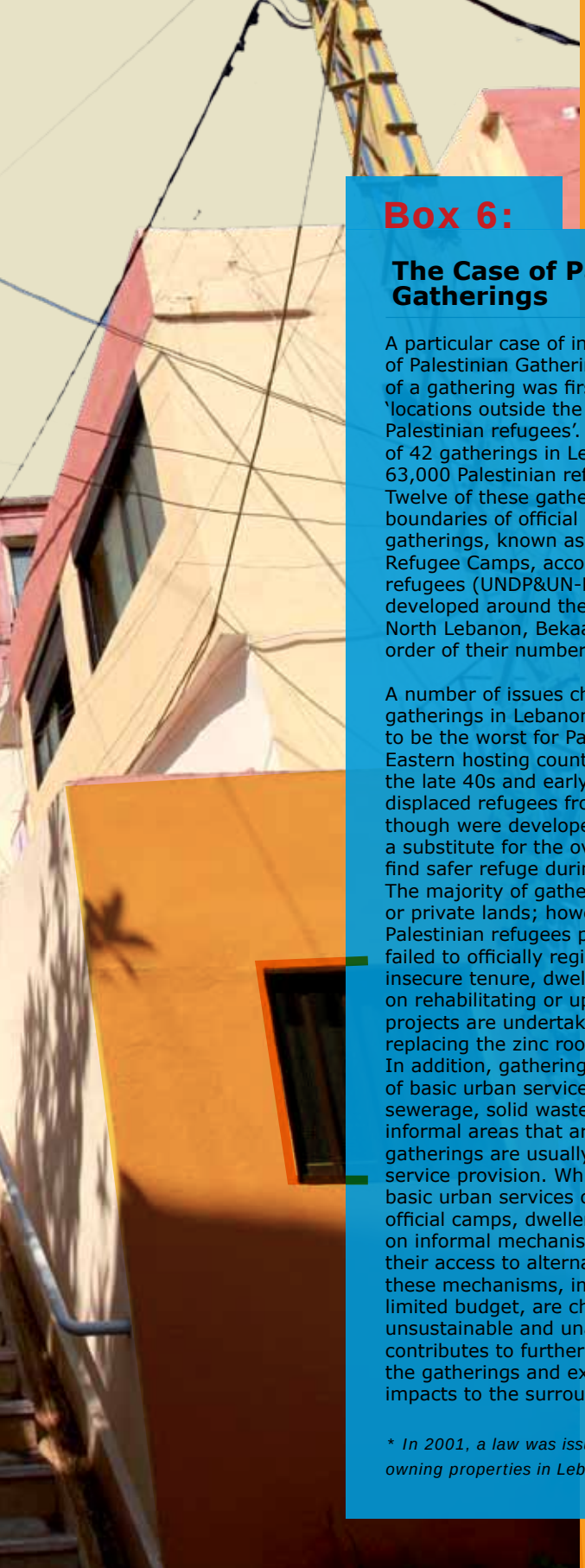
*Defined as 'areas of the city where the majority of residents live in precarious economic and/ or political conditions, with high levels of vulnerability, and where services and living conditions appear to be lower than other section so of the city.

Source: Fawaz and Peillen, 2003



As part of the Karm al-Zaytun embellishment project, initiated by the Help Lebanon NGO in 1997, the local community of Karm al-Zaytun contributed to upgrading street facades of their houses with the help of professional workers, volunteer artists and architects.

- *World Vision (2006). For Establishing an Area Development Programme in Ain el Remmaneh and its surrounding areas. Area Assessment Report.*
- *Yassin, N. Rifai, D. and Maani, M. (2006). Local Situational Analysis, Issues and Possible Interventions. World Vision, 1-125.*



Box 6:

The Case of Palestinian Informal Gatherings

A particular case of informal settlements in Lebanon is that of Palestinian Gatherings or simply gatherings. The definition of a gathering was first introduced by Fafo (2003) to indicate 'locations outside the camps that accommodate groups of Palestinian refugees'. Other studies identified the presence of 42 gatherings in Lebanon that accommodate for around 63,000 Palestinian refugees (DRC, 2005; PU/NRC, 2009). Twelve of these gatherings are located directly around the boundaries of official camps as informal extensions; these gatherings, known as the Adjacent Areas of Palestinian Refugee Camps, accommodate for around 30,000 – 35,000 refugees (UNDP&UN-HABITAT, 2010). Gatherings were developed around the major cities in Lebanon in Tyr, Saida, North Lebanon, Bekaa and Mount Lebanon in descending order of their number.

A number of issues characterize living conditions in the gatherings in Lebanon, which were reported by Fafo (2005) to be the worst for Palestinian refugees living in the Middle Eastern hosting countries. Some gatherings were built in the late 40s and early 50s with the arrival of the groups of displaced refugees from Palestine. Most of the gatherings though were developed later during the 70s and the 80s as a substitute for the overcrowded camps or in an attempt to find safer refuge during the Lebanese civil war (1975-1990). The majority of gatherings were illegally built on public or private lands; however some cases exist where by the Palestinian refugees purchased lands or houses but mostly failed to officially register their properties*. In addition to insecure tenure, dwellers of the gatherings face limitations on rehabilitating or upgrading their houses; even when such projects are undertaken by NGOs, they are banned from replacing the zinc roofs with concrete roofs for example. In addition, gatherings witness a huge gap in the provision of basic urban services, (mainly in the sectors of water, sewerage, solid waste collection and road networks). Being informal areas that are inhabited by Palestinian refugees, gatherings are usually not included within the municipal service provision. While UNRWA is mandated to provide basic urban services only within the boundaries of the 12 official camps, dwellers in the gatherings are left to rely on informal mechanisms and self-help initiatives that allow their access to alternative basic urban services. In general, these mechanisms, implemented in ad-hoc manner within a limited budget, are characterized by being insufficient and unsustainable and unable to respond to dwellers' needs. This contributes to further worsening refugees' living conditions in the gatherings and expands the problems and environmental impacts to the surrounding areas.

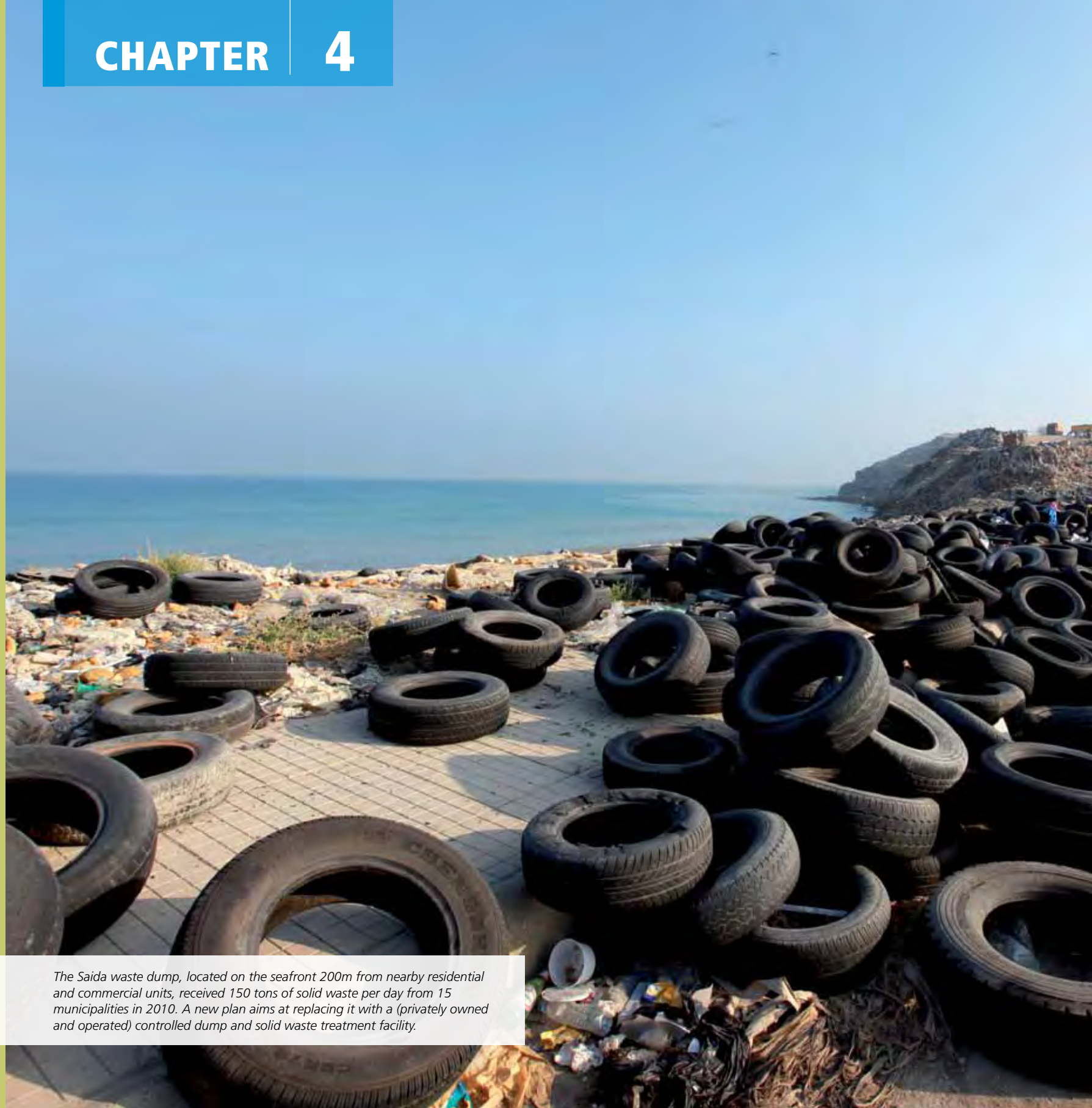
** In 2001, a law was issued that prevented Palestinian refugees from owning properties in Lebanon.*

absence of governmental social and welfare support, harbor their constituents by providing them with the adequate and necessary social services. Although political parties offer a relatively sustainable means of securing access to services (such as health, education, monetary assistance, water), such practices outline the sectarian boundaries that exist in these highly volatile areas, highlighting the gaps in the distribution of benefits among those with and without political and religious affiliations.

Policies Towards Informal Settlements:

The State has shied away from formulating policies to address informal settlements and their dwellers in Lebanon. According to Fawaz and Peillen (2003), 'laissez-faire has been the rule, although punctuated by violent incidents of eviction' mainly to make room for large infrastructure projects such as highways. There was one notable attempt to upgrade the coastal area in Southern Beirut, but which came about to be less successful. The project that was named "Elyssar" was initiated in 1996 to upgrade and develop the coastal areas of the Southern suburbs of Beirut targeting around 120,000 to 130,000 residents of which 80,000 were estimated to be residing in illegally built houses (Harb, 2011). The public agency, established to lead this project, primarily aimed at creating economic development opportunities and improving the infrastructure of the area while providing affordable housing units for dwellers in place. However, the project was hindered by strong conflicting views between the major political actors: the Hezbollah-Amal versus former PM Rafik Hariri. The latter viewed the project within the perspective of a neoliberal rational planning approach where the private sector can play a major role in regeneration while the former perceived the project as a public intervention to improve social conditions of the residents and as such an opportunity to strengthen their patronage of their constituency (Harb, 2001). Eventually, these differences that were and are still embedded in the contested political context in Lebanon have prevented the implementation of the project to date.

CHAPTER 4



The Saida waste dump, located on the seafront 200m from nearby residential and commercial units, received 150 tons of solid waste per day from 15 municipalities in 2010. A new plan aims at replacing it with a (privately owned and operated) controlled dump and solid waste treatment facility.

ENVIRONMENTAL URBAN CHALLENGES

I. WATER DEMAND
II. WASTEWATER MANAGEMENT AND SANITATION
III. SOLID WASTE MANAGEMENT
IV. ENERGY DEMAND
V. THE TRANSPORTATION SECTOR
VI. LAND AND COASTAL ZONE DEGRADATION

4. ENVIRONMENTAL URBAN CHALLENGES

The rapid demographic growth, urban expansion and improvement in life standards have caused and will continue to increase the pressure on the natural resources in Lebanon (CDR, 2005). Major factors such as the loss of arable land and biodiversity, increased pollution and the rising costs of infrastructure are impacting upon land resources and our natural environment (MOE, 2010). The National Physical Master Plan for the Lebanese Territory estimates that urbanization would every year consume an additional 10 km² of natural areas (CDR, 2005). In such a context, effective management of environmental hazards and risks, required of the government, is hindered by a number of factors including the unstable political environment, the lack of resources and the lack of a guiding vision or policies. This section will look at the environmental challenges in Lebanese cities.

4.1 WATER DEMAND

The population growth, estimated at a rate of 1.2 percent per annum (World Bank, 2010) and the increase in consumption rates are causing a rapid increase in the demand for water for domestic use in urban cities, which is estimated to reach an average of 420 mm^3 in 2030 (CDR, 2005). Falling short in meeting the domestic demand (supplying roughly 280 mm^3), the local Water Authorities[12] face an array of natural challenges such as the reduced amount of rainfall and snow cover due to climate change, as presented in Table 5 (CDR, 2005, World Bank, 2010).

Moreover, the mismanagement of water resources, namely the very low water storage capacity, high amount of water lost to the sea, low operational maintenance of the water distribution network (40-50% of the water is lost through leaks) and absence of an official management scheme for the water sector (see Box 7 for information on Water Law 2000) lead to regional and seasonal discrepancy in the supply of water (MOE, 2001; UNICEF, 2010; CDR, 2005; World Bank, 2010). A recent UNICEF report (2010) showed that 88% of the urban households in Lebanon are connected to the public network, but not all household receive the same quantity of water. The report presents data showing that water delivery depends on the availability of water in the network, the water pressure, the location of the household and the season (UNICEF, 2010). The continuity of water supply in Lebanon is presented in Figure 11 hereafter.

The river of Beirut coincides today with a major transport corridor linking the coast of Greater Beirut Area with the hinterland.

Loss of water in the network accounts for the highest percentage of water loss in urban areas in Lebanon, picture from Bauchreyeh, Greater Beirut Area.

Table 5: Components of Water Balance in Lebanon

Components	Average annual volume (mm3)
Input: Rainfall + Snow	+9300
Losses from evapo-transpiration	-4500
Groundwater	-1800
- Losses outside the national boundaries, into the sea and to neighbouring countries: 570 mm3	-3000
- Un-exploitable groundwater and sea springs: 600 mm3	
- Natural springs flow: 1 145 mm3	
- Stored and pumped amounts for domestic and irrigation uses: 685 mm3	

Source: Mudallal (1989) as cited in CDR (2005)

[12] *Water Authorities (WAs) in Lebanon operate under the jurisdiction of the Ministry of Energy and Water. These autonomous WAs are responsible for operating local projects following the MOEW approval, distributing domestic and irrigation water to users, controlling the quality of water and managing the disposal of wastewater collected by municipalities in their respective areas (Makdisi, 2008).*

Box 7:

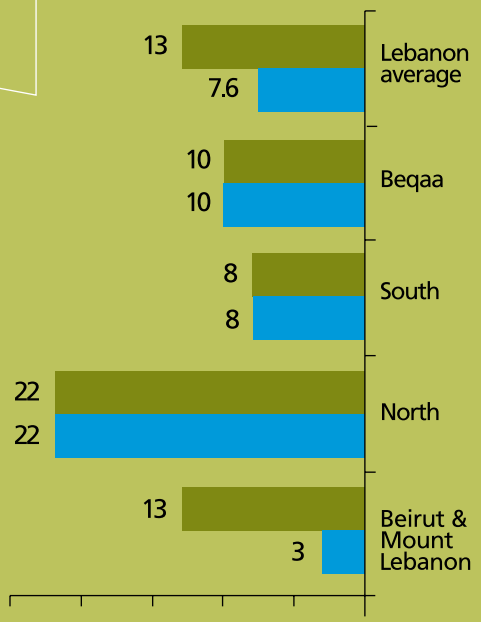
Water Law 221/2000

At the time when policies and actions to reorganize the water sector in Lebanon are fragmented, Law No. 241 (29/5/2000) came as a reform measure to strengthen the accountability in the water sector. The Law reorganizes the existing 22 water boards into four Regional Water Authorities: Beirut and Mount Lebanon, North, South , and Beqaa in addition to one pre-existing river basin agency. The 2000 reform Law mandates a clear separation between policy-making and service provision through the establishment of financially and administrative autonomous Regional Water Authorities. Autonomy is manifested by the authorities' role in setting subscription fees for domestic water supply and collecting water tariffs for domestic and agricultural use. Soon after the enactment of the Law, the respective reform agenda, reached an implementation impasse. A recent report by UNICEF states that the reasons for not putting the reform agenda into practice were related to implementation difficulties. Such difficulties were related to financial limitations and human resource problems.

Source: WHO, 2010; UNICEF, 2010

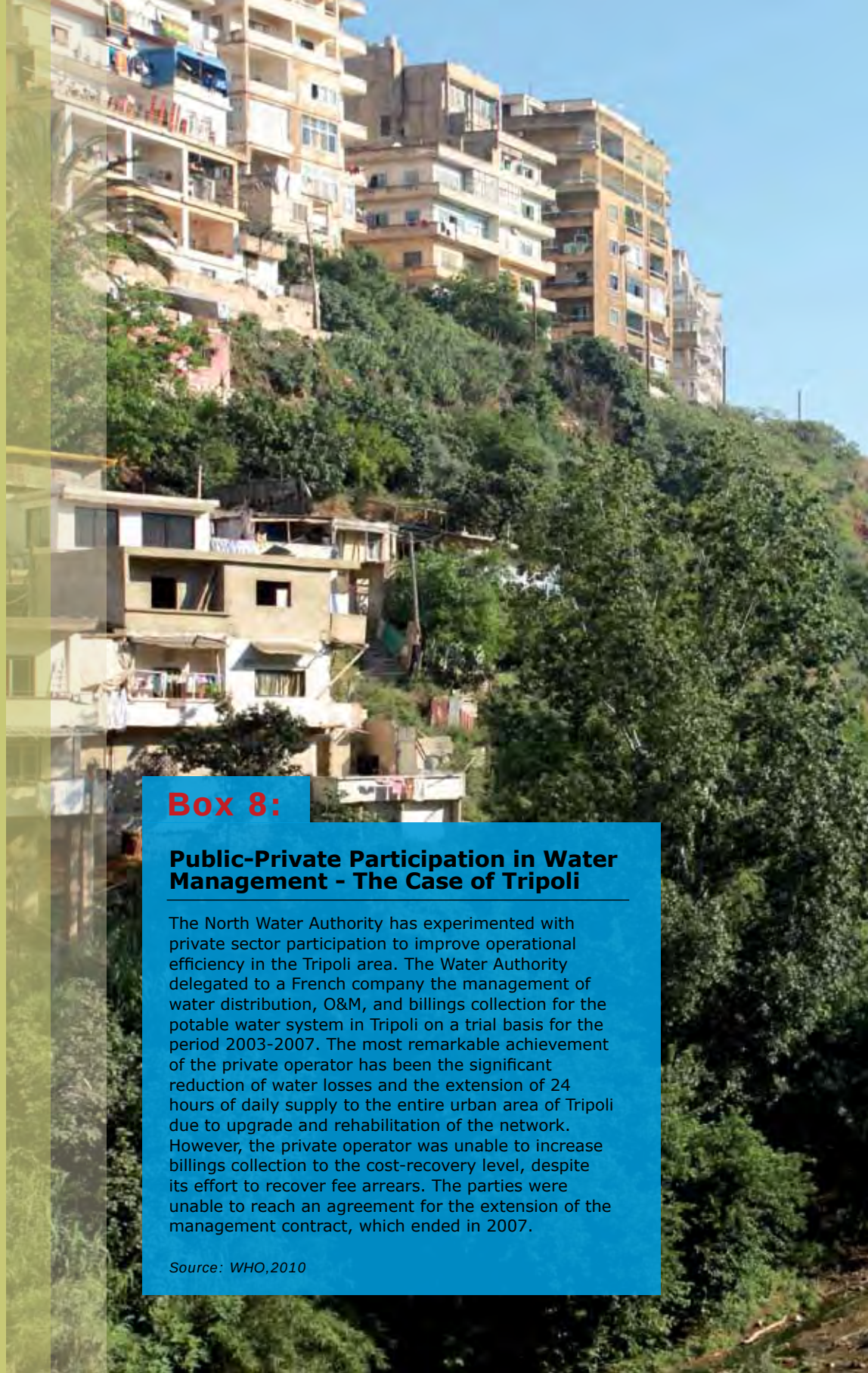
In 1968, Nahr Beirut was converted from a riparian river to a concrete canal and eventually, it mutated into an open sewer. The highway built on its right bank completed this conversion into an infrastructural conduit of sewage and transport.

Figure 11: Continuity of Water Supply
Source: World Bank, 2010



As a mean to secure water for daily consumption, 50% of the population purchase bottles or gallons, 25% of the population use water from vending trucks, 10% use water from spring or tapstand, and 10% use private networks (UNICEF, 2010). Another measure used to address the shortage in water supply is seen in some towns creating their own water services and water commissions (Domestic and irrigation) under the Ministry of Energy and Water's decision (Ibid). Furthermore, some other local authorities (ex: case of Tripoli) cooperated with the private sector to better manage water provision (see Box 8).

A recent country environmental analysis conducted by the WB shows that existing legislations for the protection of water resources in Lebanon dates back to 1925 and even to the Ottoman era; these were not updated and sparsely complemented with additional laws and application decrees (World Bank, 2011). However, the MOEW has formulated a draft water sector strategy which is supposed to be finalized in 2011 to cover legal, institutional, technical, managerial and financial aspects of the water, wastewater and irrigation sectors (Ibid).



Box 8:

Public-Private Participation in Water Management - The Case of Tripoli

The North Water Authority has experimented with private sector participation to improve operational efficiency in the Tripoli area. The Water Authority delegated to a French company the management of water distribution, O&M, and billings collection for the potable water system in Tripoli on a trial basis for the period 2003-2007. The most remarkable achievement of the private operator has been the significant reduction of water losses and the extension of 24 hours of daily supply to the entire urban area of Tripoli due to upgrade and rehabilitation of the network. However, the private operator was unable to increase billings collection to the cost-recovery level, despite its effort to recover fee arrears. The parties were unable to reach an agreement for the extension of the management contract, which ended in 2007.

Source: WHO,2010

Abu Ali River in Tripoli, which already has low water levels, is polluted by sewage outlets by residences and wastes from the vegetable market.

4.2 WASTEWATER MANAGEMENT AND SANITATION

In 2010, Lebanon produced 248.2 million m^3 of domestic waste-water alone; a figure that was projected to reach 448.3 million m^3 in 2030 (World Bank, 2011). In the absence of a comprehensive national strategy to deal with wastewater, domestic wastewater management represents one of the most salient challenges to Lebanese authorities, whether to municipalities or to the concerned ministries (MOE, 2010; WB, 2011). Although significant improvements are being made to the sewer network, whereby around 66% of Lebanese citizens are connected to the public wastewater network[13] (Ibid; CDR, 2005), little has been achieved in terms of wastewater treatment. For the majority of dwellings and businesses connected to the sewer network, the bulk of their raw sewage is discharged directly into the sea or inland watercourses without treatment prior to disposal (World Bank, 2011). Only 8% of wastewater undergoes primary treatment, which is estimated to remove only 40 percent of BOD , while secondary treatment removes around 80 percent of BOD[14] and tertiary treatment allows the reuse of water for selective irrigation, industrial use or groundwater recharge (Ibid).

In line with available regional legislations to protect the Mediterranean, Plan Horizon 2020 devised a wastewater strategy to address the problem of pollution and wastewater

Two sewage outfalls pour in an untreated manner to Ramlet el Baida beach, the only public beach left in Beirut.

Ad-hoc sewage disposal into the river in Dora, Greater Beirut Area.

[13] *This percentage reached 99.6 in Beirut and 89.6 in the southern suburbs in 2007, with an increase of 1.3 and 7.5 percentage from 1998, respectively (WB, 2011).*

[14] *BOD is a measure of the content of biologically degradable substances in sewage; the substances are broken down by microorganisms in the presence of (and with the consumption of) oxygen.*

disposal throughout the country, taking into consideration the projected wastewater generation in 2030. As such, CDR focused its wastewater sector efforts since 2009 on rehabilitating and constructing sewer networks and wastewater treatment plants (WWTPs) with a total budget of USD 3.5 billion. This includes a total of 28 priority WWTPs that are already constructed, under construction or planned by CDR. While 16 priority WWTPs are inland, 12 are planned for major cities/ agglomerations and located along the coastal zone to target wastewater discharging directly into the sea. In addition, some 44 small-scale waste treatment plants, half of which located in the Hasbani and Wazzani catchments, were totally or partially constructed. Besides, some 24 additional WWTPs are directly built or planned to be built by developers in or outside the CDR future project pipeline financing (World Bank, 2011).

To date, 5 plants are completed in Tripoli, Chekka, Ras Nabi Younes, Saida and Ghadir; only the last two are currently operational but both are limited to preliminary treatment only. Inland, a major WWTP in Baalbeck and 8 small-scale WWTPs are operational. It should be mentioned that some completed WWTPs are still not connected to the networks (Ibid).

4.3 SOLID WASTE MANAGEMENT

The combined effect of the rapid demographic growth together with increase in consumerism is significantly increasing the volume of solid waste generated in urban areas in Lebanon, which is estimated at 1.1 kg/c/d (compared to a national average of 0.96 kg/c/d and 0.5 to 0.75 kg/c/d in rural areas) (MOE, 2010). Therefore, of the average 1.57 million tons of waste generated in Lebanon per year, around 65 percent are generated by urban areas. Furthermore, the volume of solid waste generated in urban areas was expected to grow by more than 60% by 2030 (CDR, 2005). Municipal solid waste (MSW) in particular makes up about 90 percent of the total solid waste stream generated in Lebanon. The main sources of MSW are households, commercial establishments, street markets, street cleaning operations, and public garden pruning (MOE, 2010).

Table 6: Estimated WWTPs operating capacity and Treatment Rate, 2010

Region	Planned, constructed, under construction, operating or abandoned WWTPs		CDR implemented Propriety WWTPs		Operating WWTPs
	Number	Design flow million m³/year	Number	Design flow million m³/year	Design flow million m³/year
Beirut–Mount Lebanon	19	211	8	208	19.3
South Lebanon	27	49	3	40	20.2
North Lebanon	21	92	6	66	0.5
Beqaa	24	47	11	47	7.4
Total	90	400	28	360	47.8

Source: World Bank, 2011

Solid waste collection is compromised in some neighborhoods by physical conditions such as narrow or un-paved streets, picture from Bashoura, Beirut.

Box 9:

Government's Commitments in the Field of SWM

Following COM decision in 1997, the Emergency Plan for SWM was developed to provide a framework for SWM in Beirut and most Mount Lebanon.

In 2006, following COM request, MOE and CDR prepared a 10-year municipal SWM plan to cover the rest of Lebanon, which proposed an integrated approach to SWM involving collection and sorting, recycling, composting, and landfilling. However, due to the lack of public funding the plan has not been implemented.

Acknowledging this fact, the COM issued decision 55 in 2010 to amend and complement the 2006 plan and also to advocate Waste-To-Energy technologies in urban areas and large cities.

The MOE incorporated SWM as one of 10 priority themes into its Work Program for 2010-2012 in partnership with relevant ministries (MOIM, MOF, MOPWT, MOPH, MOA and OMSAR). The Work Program also promotes Integrated Solid Waste Management covering municipal, industrial and hazardous waste and calls for managing uncontrolled dumpsites and defining guidelines for the treatment of special wastes such as e-waste.

In addition, Lebanon has signed several conventions related towards disposal and pollution.

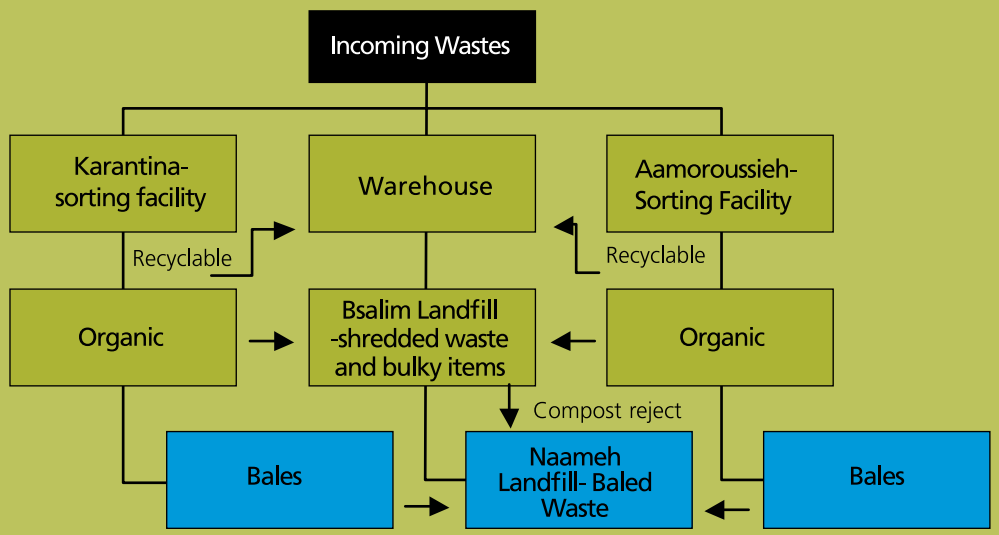
Source: MOE, 2010

The Dumping sites of Bourj Hammoud and Normandy in Mount Lebanon have been closed and are in remediation process; however other seafront dumps remain such as the one in Tyr. The picture shows the dumping site of Burj Hamoud today.

While municipal solid waste is collected by private companies commissioned by the municipalities or union of municipalities in Greater Beirut Area, the municipalities are responsible for the collection, treatment and disposal in other areas. According to the MOE Report, austerity measures by the government have prevented many municipalities to plan for and invest in proper solid waste systems, especially that municipalities receive most of their budget from the centrally operated Independent Municipal Funds (MOE, 2010). The National Master Plan report states that solid waste collection is the only well managed phase, however dumping sites are badly managed and are subject neither to routine monitoring nor maintenance (CDR, 2005).

The report cites the – "Waste Mountains"- in Saida and Burj Hammoud as examples of mismanaged dumping sites which exceeded their saturation capacity (Ibid). Furthermore, in the absence of a national strategy to deal with solid waste, various unsupervised solid waste management approaches are currently practiced in different cities and urban areas. For a summary of Government's commitments in the field in solid waste management, refer to Box 9. In fact, a study conducted by the World Bank in 2004 quantified the loss of degradation caused by pollution from illegal dumping and waste burning to be around $10 million per year and rising. For a brief on Solid Waste Management in Greater Beirut Area, refer to Figure 12.

Figure 12: Solid Waste Management in Greater Beirut Area



In the Greater Beirut Area (GBA), municipal solid waste has been managed in accordance with the 1997 Emergency Plan for Solid Waste Management in the GBA .While the basic features of the plan were implemented, key SWM indicators remain well below target, especially with regard to recycling and composting.

Source: MOE, 2001

Abu Ali River in Tripoli: the high reinforced concrete walls constructed after the 1955 floods, within which the river flows, split the ancient city in two. In addition to losing its character, the river was identified in a recent study, along with Antelias River, to be the most polluted in Lebanon.

4.4 ENERGY DEMAND

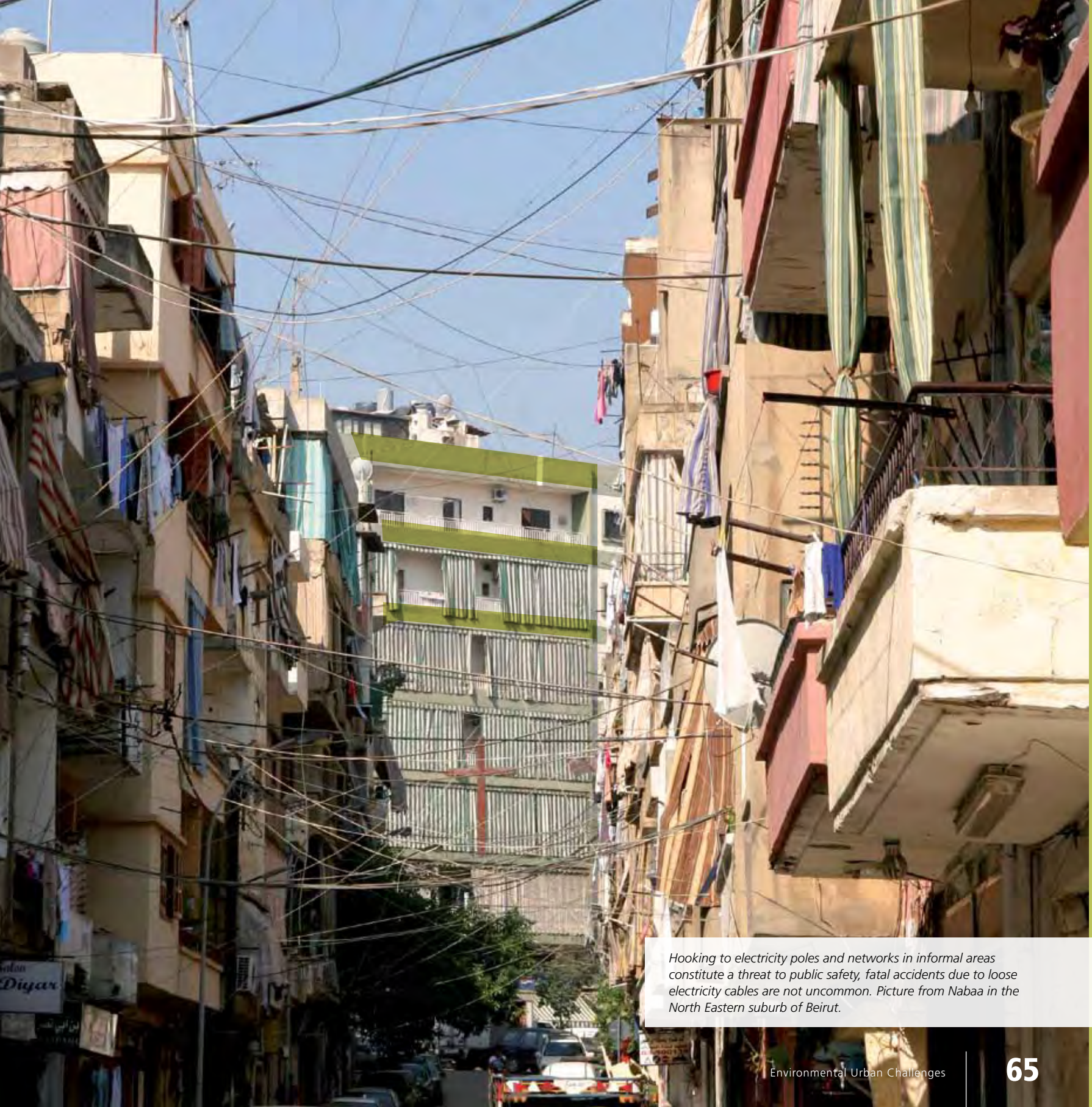
The demand for energy is rapidly increasing as a result of urbanization and the growing use of energy consuming practices such as heating, cooling and new technological appliances. To cater for this demand, Lebanon imports around 97 percent of its energy needs and relies on six principal sources of primary energy: imported hydrocarbon fuels and liquid; gaseous form; imported electricity; locally produced hydroelectricity; biomass; and alternative energy (MOE, 2010). Electricity is supplied through *Electricité du Liban* (EDL), an autonomous state owned entity under the jurisdiction of the MOE. EDL operates eight thermal plants and at least five major hydroelectric plants. Three other hydroelectric plants also produce and sell electricity to EDL (namely Naher Ibrahim, El Bared and Litani) (Ibid).

Data pertaining to the energy consumption varies according to different sources; despite the difference, data clearly reflect that energy production does not match the demand (Houri & Ibrahim-Korfali, 2005; MOE, 2010). The shortage in generation capacity results in daily and prolonged electric blackouts even in major cities and urban areas, which ultimately affects the overall economic performance (MOE, 2010). As a result of power shortage, people have reverted to alternative power supply systems such as private power generators (mostly in Beirut and Mount Lebanon), back-up tools such as UPS's for computers and private power generators, and informal localized power generators subscription.

The reasons behind shortage in energy supply could be attributed to a number of factors namely reliance on old and severely damaged electricity networks and power plants, difficulties in importing energy from neighbouring producing countries (namely Syria due to a global increase in demand, increase in prices and changes in political relationships) and acts of hooking and non-payments. Proxy data show that the latter acts are more evident in regions outside municipal Beirut, mainly in the suburbs and mountain areas. To account for the shortage in supply for energy, Lebanon is currently working to reach a target of 12% of total consumption through renewable energy and is looking for funding from developed countries to support its transition to solar energy.

Energy industries (thermal power plants) are identified by the MOE as one of the largest contributor to air pollution in Lebanon, accounting for, among other pollutants, 39% of national CO2 emission in 2005. Picture of thermal power plant on the sea side in Zahrani, South Lebanon.

Ad-hoc electricity connections in the old quarters of Tripoli city.



Hooking to electricity poles and networks in informal areas constitute a threat to public safety, fatal accidents due to loose electricity cables are not uncommon. Picture from Nabaa in the North Eastern suburb of Beirut.

Box 10:

Beirut Urban Transport Project

The Beirut Urban Transport Project covers the GBA, from Antelias at the northern entrance of Beirut to Khalde at the southern entrance and to Mkalles to the East. Started in 1999, the BUTP does not aim to increase road capacity markedly; rather it is designed to streamline mobility on the GBA network by improving traffic and parking management, and grade separations. The BUTP traffic management component will deal with an estimated 1.5 million trips per day, and handle 222 traffic signals (122 within Beirut and 100 outside Beirut). The component will also install 25-30 surveillance cameras that be synchronized by a proposed traffic control center. The Grade Separation component will oversee the construction of nine overpasses and seven underpasses at 16 heavily congested intersections in GBA. Environmental Monitoring Plans are required during implementation. Finally, the parking management component is split into two phases across 13 priority zones that have been selected in the GBA. The first phase aims to build roadway infrastructure for about 5,000 curbside parking spaces, while the second phase will aim at encouraging the private sector to invest in off-street parking structures. This will shift long-time parked vehicles from the curbside parking spaces into off-street parking locations. The total cost of the BUTP is approximately US$100 million, to be implemented over five years. The BUTP has no provision for improving traffic through upgrades to the public transport sector.

Source: CDR, 2005

In Lebanon, the transportation sector (including land, air and marine) is considered the main source of air pollution in the country. Picture of traffic congestion, which happens daily, along the Dora highway at Beirut Northern entrance.

4.5 THE TRANSPORTATION SECTOR

While industrial activities and power generating activities may be considered as contributing factors, the transportation sector remains the predominant sector in terms of energy consumption and the major cause of air pollution in urban areas in Lebanon (MOE, 2010). The heavy reliance on private transportation has made Lebanon the second highest person-to-car rate in the world. Data shows that the number of private cars in Lebanon is estimated to rise from 700,000 to 1,100,000, an increase of 57%, between 2000 and 2030 (CDR, 2005). Furthermore, the increase in housing and living costs in the cities is pushing the Lebanese to reside in the suburbs while still working in the cities; continuous mobility is contributing to both traffic congestion and air pollution.

Moreover, the rise of the automobile could be largely attributed to factors such as not reactivating the public tramline, the erosion of pedestrian amenities and the development of suburban sprawl aided by weak zoning regulations. To work the problem of traffic, several projects are being implemented, such as the Beirut Urban Transport Development Project (see Box 10) (MOE, 2001). In addition, the 2005 National Physical Master Plan presents a series of recommendations that address the issue of transportation. Such recommendations include but are not limited to rehabilitating the disused rail networks for inter-urban rail lines, devising strategies to reduce traffic jams in the Greater Beirut Area, constructing new coastal roads, upgrading Tripoli Port, and regulating public transportation (CDR, 2005).

The number of licensed private vans in Lebanon is 2,230, constituting an alternative for public transport system.

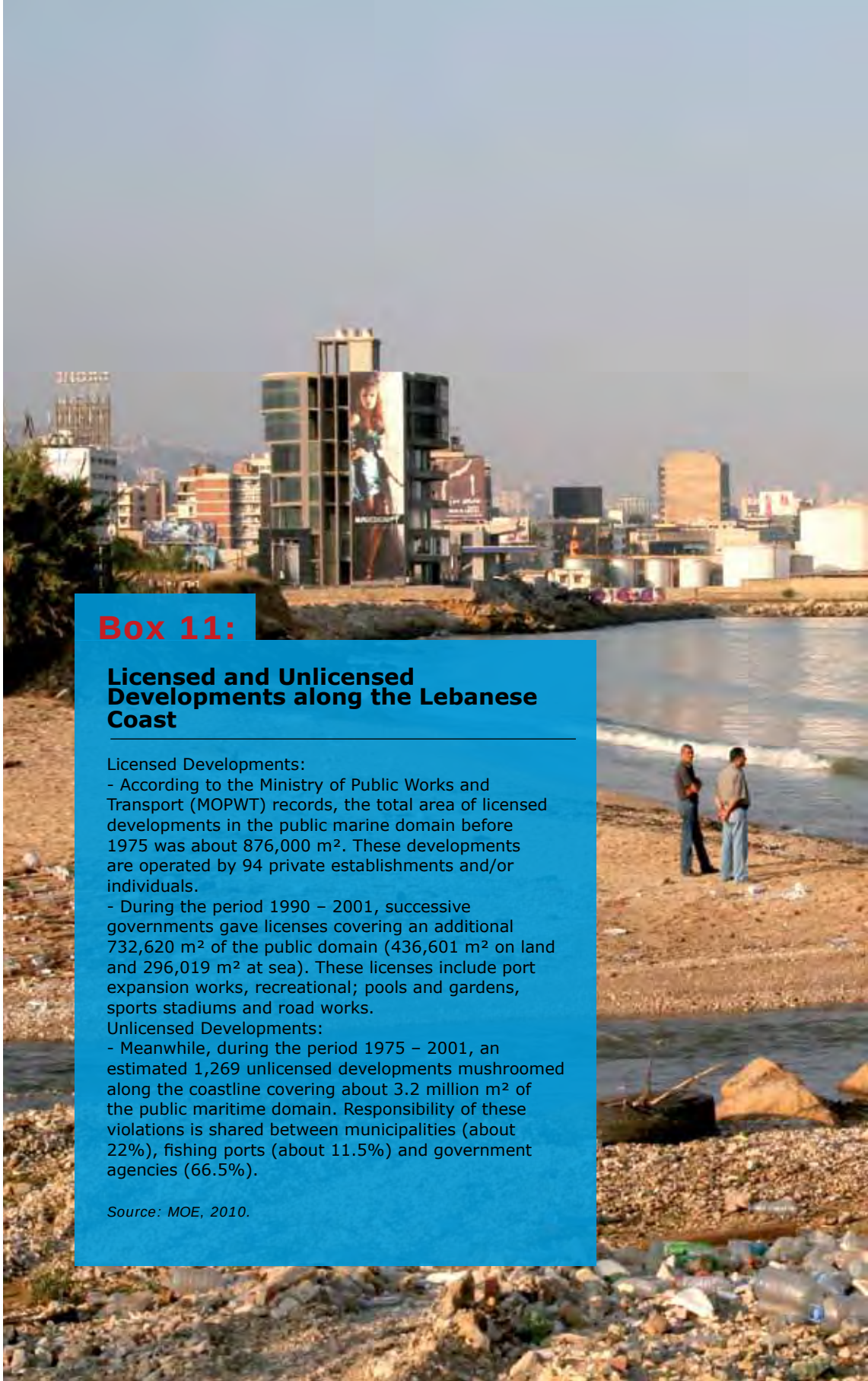
In 2010, a study commissioned by the COM targeted 17,000 licensed urban taxis of the total 33,500 licensed taxis in the country, to swap them into hybrids and/ or fuel efficient cars through loans. The project has not been implemented yet due to high expenses.

Some highways and tunnels were planned with little consideration to existing neighborhood fabrics, such as the case at the entrance to Karm el Zaytoun neighborhood in Greater Beirut Area.

4.6 LAND AND COASTAL ZONE DEGRADATION

With the pressure of population growth, new constructions are massively increasing especially at the coastal zone, where more than 50% of the Lebanese population resides, leading to a largely uncontrolled urban expansion (CDR, 2005). Constructions on the coast mainly including large-scale reclamation projects and residential development projects, mostly evident in the stretch between Jbeil and Saida, are leading to the loss of green cover, land degradation and retreat of coastal domain (see Box 11). The narrow sea-line corridor with an altitude between 0 and 50m is undergoing "hydrodynamic" modifications as a function of recent land reclamation and sand dredging activities (Ibid). In addition, the disposal of untreated municipal wastewater and the presence of seafront solid wastes dumps, together with the uncontrolled development of resort and holiday homes along the shoreline particularly in Beirut and Jounieh, are playing a significant role in the degradation of the coastal zone. The disposal of untreated wastewater induces a catastrophic situation along the seashore, which not only affects the seaside tourism, but its environmental impact extends to threaten the fishing sector and the coastal aquatic ecosystem (Ibid).

It should be mentioned that since 2002, a mandatory Environmental Impact Assessment (EIA) process is fully integrated in permitting procedures for leasing public maritime domain for large-scale developments; project proponents must complete and submit the EIA study as part of their application file to the Ministry of Public Works and Transport (MOPWT). However, several projects bypass the MOPWT and the Ministry of Environment (MOE) and secure a permit from the Council of Ministers (MOE, 2010).



Box 11:

Licensed and Unlicensed Developments along the Lebanese Coast

Licensed Developments:
- According to the Ministry of Public Works and Transport (MOPWT) records, the total area of licensed developments in the public marine domain before 1975 was about 876,000 m². These developments are operated by 94 private establishments and/or individuals.
- During the period 1990 – 2001, successive governments gave licenses covering an additional 732,620 m² of the public domain (436,601 m² on land and 296,019 m² at sea). These licenses include port expansion works, recreational; pools and gardens, sports stadiums and road works.

Unlicensed Developments:
- Meanwhile, during the period 1975 – 2001, an estimated 1,269 unlicensed developments mushroomed along the coastline covering about 3.2 million m² of the public maritime domain. Responsibility of these violations is shared between municipalities (about 22%), fishing ports (about 11.5%) and government agencies (66.5%).

Source: MOE, 2010.

Pollution due to haphazard practices: Untreated sewage outfalls, fuel tanks, industries and constructions located on the coast at Nahr el Mot area between Beirut and Jounieh.

Tyr Beach has a wetlands refuge registered under the Ramsar Convention on the List of wetlands of international importance; today it is threatened by pollution contamination and development pressures.

The sea in Saida is littered and polluted by two sewage outfalls, solid waste in addition to the wastes dump showing in the background.

People trespass the corniche balustrades in Beirut to sit closer to the sea in the absence of a public beach area.

CHAPTER 5

Restoration of the historic Khan al Askar in the old city of Tripoli by the Cultural Heritage and Urban Development (CHUD) project. The project relocated around 500 people, who were living and operating shops in the Khan since the civil war, to a newly constructed compound of buildings in Tripoli (see next page).

URBAN GOVERNANCE

I. THE LEBANESE POLITICAL SYSTEM
II. LOCAL GOVERNANCE - MUNICIPALITIES
III. CURRENT REFORM MEASURES
IV. ROLE OF PRIVATE ACTORS AS PROVIDERS

5. URBAN GOVERNANCE

5.1 THE LEBANESE POLITICAL SYSTEM

The Lebanese political system is best described as fragmented and governed by a peculiar interplay between religion, demographics, and politics where state power and positions are distributed among political/sectarian groups based on a quota system. Following a series of historical and political events ever since the 1975 civil war, maintaining political representation balance based on the size of the sectarian group among the three major sects (Maronite Christians, Sunni Muslims and Shia'a Muslims) became the key to ensure co-existence. In official terms, Lebanon is a Republic, which political structure is divided among three independent branches: the executive branch, the legislative branch, and judiciary branch. The executive branch is composed of the President, a Maronite, who is elected by the Parliament for a 6 year presidency term, and the Prime Minister, a Sunni, who is appointed by the President in consultation with the Parliament; the legislative branch is headed by the Shia'a Speaker of the Parliament. The legislative branch is composed of 128 ministers, which sectarian composition is equally divided between Muslims (Sunni and Shia'a) and Christians, and are elected by the Lebanese citizens every four years. The judiciary branch, is an independent legal body composed of courts for cassation, constitutional courts, military courts, and the supreme council. The mold between confession, demographics, and politics has been criticized for encouraging Lebanese citizens to identify first and foremost with their religious and sectarian group and leader, thus succeeds in institutionalizing confessionalism, prevents the construction and development of a unified Lebanon, precipitates the dominance of a few elite families within the country's politics, hinders decentralization strategies and institutionalizes clientelism and corruption.

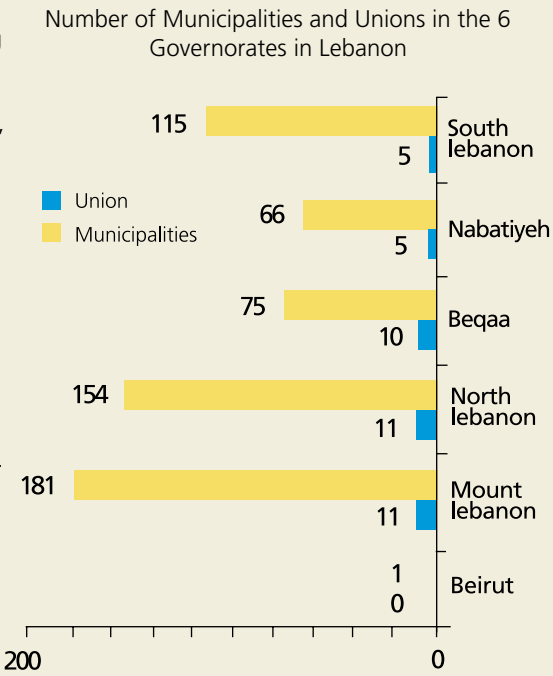
5.2 LOCAL GOVERNANCE - MUNICIPALITIES

In Lebanon, the municipality is the only form of decentralized local government which practically accommodates for the shortcoming of the national government in addressing urban problems and meeting everyday needs of the rapidly growing urban population. Today there are 963 municipal authorities distributed among the six governorates in Lebanon of which 61% are members of unions of municipalities (see Figure 13) (UN-HABITAT, 2011).

The municipality is a locally elected representative body (ranges between 9-21 members), comprised of the municipal head (or mayor) and the municipal council, both elected for 6 year terms. Unions of municipalities are formed from a number of neighboring municipalities to address common issues. The Unions' decision-making authority rests at the Council of the Union and at an executive authority headed by the President of the Council of the Union (MOIM, 2009). The executive union has engineering, administrative, finance, and police committees. Currently there exists 42 Unions of Municipalities in Lebanon which are divided among the Governorates (see Figure 14). While the municipalities and unions enjoy legal, financial, and administrative independence, their activities are closely supervised by the Ministry of Interior and Municipalities, thus taking the intermediary role between the State on the one hand and the local community on the other hand (Ibid).

The municipality, through its decision-making authority and its executive authority provides a wide array of administrative tasks, organization, and services (see Annexes 1 and 2). The financing of municipalities comes from fees collected directly by tax

Figure 13: Distribution of Municipalities and Unions in Lebanon



Source: UN-HABITAT, 2010

The newly constructed buildings by the CHUD project in Tripoli, housing families relocated from Khan al Askar. Houses and shops in this compound are long leased by the Municipality of Tripoli to relocated dwellers for subsidized prices (1,000 LBP / month for residential units and 500 LBP/month for shops). The municipality carries out maintenance works for common areas in the compound.

payers, fees collected by the state on behalf of the municipalities and distributed directly to each municipality through the Independent Municipal Fund (IMF), financial aids and loans, revenues of municipal properties (including the total revenues of public domains related to the municipality), fines, and donations (MOIM, 2009). Revenues of the common allowances of all municipalities are deposited in the Independent Municipal Fund (IMF) at the Ministry of Interior and Municipalities. The financial work of the municipalities is subject to the authority of the financial observers called General Controllers appointed by the Council of Ministers upon the suggestion of the Minister of Interior and Municipalities (Ibid).

Notwithstanding the presence of ample number of municipalities, a close analysis unfolds the countless weaknesses that characterize their activity. These challenges fall under three categories: *weak practice of good governance, lack of coordination*, and *limited resources*, as discussed hereafter.

Weak practices of good governance:
With regards to good governance, despite the fact that the municipal elections take place every six years, the electoral process is limited in terms of responsiveness, accountability, and participation. In Lebanon, residents are registered under their birth place and not within the municipality where they reside. As such, residents are barred from taking part in the electoral process and participating in the decision-making in their residency location, mainly cities, thus leaving their needs unheard by the elected municipal body. In the same vein of thought, the budget paid by the IMF corresponds to the number of registered population in a municipality rather than the actual number of residents living within the municipal boundaries. Furthermore, the administrative performance of the municipality is greatly controlled and shaped by interferences from the central government, political parties, and local leaders. The interference of the latter parties institutionalizes clientalism and preference, especially in issues related to employment, planning, financing and implementation of projects.

Figure 14: The Distribution of the Unions of Municipalities in Relation to the Cazas

Lack of coordination and cooperation:
Lack of coordination is another major challenge facing the work of municipalities in Lebanon. In spite of the unavailability of relevant studies, a simple observation of the performance of most of the municipalities shows an environment controlled by lack of coordination and trust amongst the members of one municipality. While such environment might be fueled by the aforementioned political interferences, lack of cooperation significantly affects the efficiency of the systems of work in the municipalities: tasks might be left uncompleted, time and resources might be wasted, and work might be left unsupervised or non-evaluated. In the same token, lack of cooperation seems to describe the relationship between different municipalities in the same Unions. Lack of cooperation, at this level, as a result of competition over resources or un-resolved conflicts, also affects the performance of the municipalities in meeting local needs.

Limited resources:
Shortages in local and financial resources present another salient weakness suffered by municipalities, which works against meeting their responsibilities. Examples of the effect of shortage of resources might include the inability of the municipality (especially those in smaller cities and towns) to repair damaged roads, delay to manage defects in the water distribution system, inability to organize cultural events to promote the cultural scenery, or incapability to establish local public venues (such as sports clubs, parks, and libraries) and inability to implement urban services or extend those to all areas within their domains.

5.3 CURRENT REFORM MEASURES

It is worth noting though that small measures are being taken to improve decentralization in Lebanon. For instance, the former Ministry of Interior and Municipalities has in 2011 discussed with the parliament a draft law to implement administrative decentralization in Lebanon. The draft suggests dividing Lebanon into 25 small Qadas[15] –as indicated by the Taif Accord, and each Qada would have around 60 municipalities. As such the municipality would be adopted as the smallest administrative unit. On a parallel front, the Ministry of Interior and Municipalities has been building the capacities of members of municipal councils through a series of training workshops to prepare them for decentralization. Also, financial reform measures at the level of the municipalities have been discussed based on the findings of the recently completed study on reforming the financial system of municipalities in Lebanon (Mroueh, 2011).

5.4 ROLE OF PRIVATE ACTORS AS PROVIDERS

Non-Governmental Organizations (NGOs): Proxy to Services

The NGOs in Lebanon are active in filling the gap created by the shortcoming of the Lebanese public bodies in service provision. The NGOs play a major role in urban management and service provision, where they plan, administer, produce, and distribute accessible and affordable public services to the most disadvantages social groups. For instance, in accounting for educational shortcoming of the public educational institutes (in terms of accessibility not affordability), some NGOs provide vocational and literacy programs. Also, some business oriented NGOs support youth and women by providing microloans or business consultancy as a form of economic empowerment. Other NGOs participate in constructive activities on the regional and international levels and focus their work directly on issues related to advocacy, awareness building, and forming lobbies and pressure groups, in addition to multiple forms of fieldwork in different social fields. In doing so, the NGOs contribute to implementing small steps towards balanced development. To implement the latter services, civil society groups receive funding from seven different sources: membership contributions, donations, contacts with ministries, contributions of Diaspora and rich community members, contributions from political figures, contributions from religious-duties, project-based funding from western funders, and membership fees and incoming generating activities (UNDP, 2009).

Political parties: services with strings attached

As aforementioned, the notion of confessional politics is central in the discourse over service provision in Lebanon. In a country where the State and its institutions are weak, political parties – often representing a sectarian community - build popular support by providing social welfare and a myriad of basic urban services. The social welfare systems of major political parties and movements (such as Jihad Al Binaa for Hezbullah, and Hariri Foundation for Future Movement) provide services to their constituencies (Cammett & Issar, 2010). Such services include but are not limited to health services (through dispensaries, health care centres, or monetary health support), educational services (through nurseries, schools, or monetary educational support), and seasonal nutritive short term aids, infrastructure (water and waste water networks and roads), and even construction projects (as in the case of the Hezbollah Jihad Al Bina institution after the 2006 War). Whether the motives behind the latter services might be criticized for clientelism in the form of catering for selective –sectarian-communities, or contested for reflecting political incentive for electoral motives or political mobilization, services offered by the political parties serve as another venue to compensate for the shortcoming of the public service provision role.

[15] *Qadaa or Province: is a geographical territory governed as an administrative unit.*

CHAPTER 6

The most expensive façade bordering the BCD area in Beirut, partly under Solidere regulations, Saifi. The fair market value of built up area in Saifi according to RAMCO is 2,000 – 2,500 USD/m² although sold for much higher factoring in the price of land; the escalated land prices have effectively increased the cost of construction as well.

EMERGING URBAN ISSUES

I. THE SOCIO-ECONOMIC DIVIDE
II. THE SPATIAL DIVIDE
III. THE SECTARIAN DIVIDE

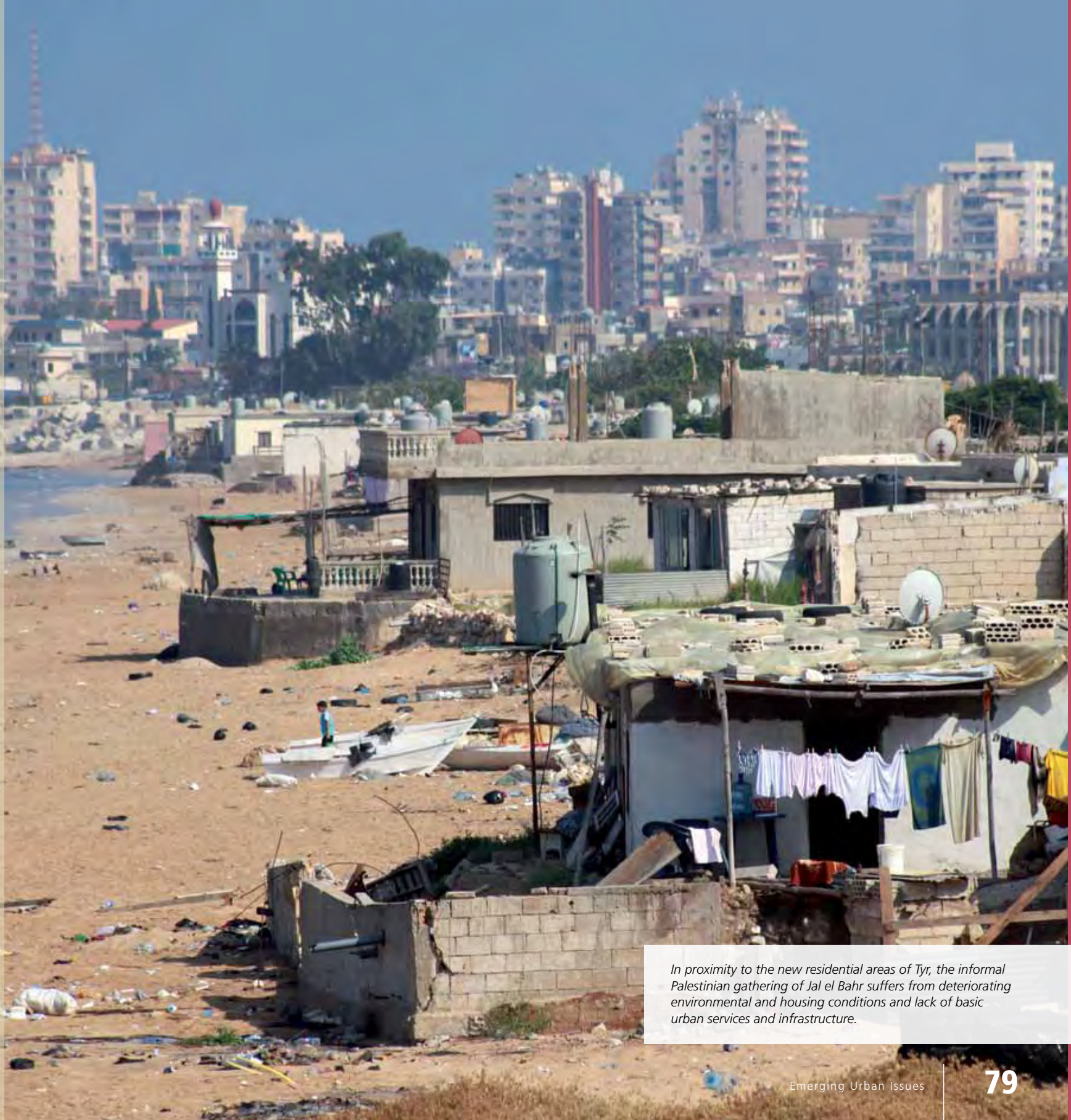
6 EMERGING URBAN ISSUES

Indeed, cities undergo continuous transformation in their spatial, socio-economic and political milieus. Among the rising issues in Lebanon's urban milieus, the emergence of significant urban divides stands out. Such divides could exacerbate if unaddressed and could evolve in an uncontrolled manner affecting the livability in cities. This section addresses three types of urban divides including: socio-economic, spatial and sectarian.

6.1 THE SOCIO-ECONOMIC DIVIDE

Over the years, development projects, which were mostly steered by the private sector, transformed the landscape of the cities, particularly Beirut, from that characterized by war-damaged building structures into a modernized/Western-like city distinguished by skyscrapers, luxurious apartments and office blocks, highways, and shopping malls. The absence of a clear urban development policy framework, together with the inefficiency of Lebanese land property Law, contributed to the increase in prices of the land and housing units. Consequently, the lack of an urban policy framework significantly increased the gap between the poor and the rich, as it forced the lower middle and low income households to resort to the affordable suburban areas of the city or live in slums, while it gave the high income class the advantage to reside in and around the city. The socio-economic disparities created as a function of the uncontrolled urban development plans in the cities are further exacerbated by the centralization of cities in terms of economic activities and service provision. While the high income households residing in the proximity of the cities have the luxury to access occupational, educational, social and health services in the city, low and middle income households are forced either to utilize the available inadequate services or to commute daily to the city to meet their daily needs. This description draws a picture of the socio-economic clustering phenomena in the cities and urban areas in Lebanon.

Although Khandak al Ghamik (top picture) accommodates for low and lower-middle income dwellers in Beirut and suffers from poor conditions, its proximity to the Down Town (bottom picture) has escalated the market value of the built-up area only to a minimum of 1,000 – 1,500 USD/m². In a context of lack of policies that limit land speculation and high-rocketing housing prices, the area is currently on hold but rife with speculative investors.



In proximity to the new residential areas of Tyr, the informal Palestinian gathering of Jal el Bahr suffers from deteriorating environmental and housing conditions and lack of basic urban services and infrastructure.

6.2 THE SPATIAL DIVIDE

The impact of the aforementioned segregation is further manifested spatially. As an outcome of the centralized and increasingly privatized services, uneven urban development and limited housing choices in the city, residents of suburban areas invest an ample amount of time commuting to the city. Residents of the suburban areas find themselves facing problems related to social distance and interaction between themselves and those in the city, as their mobility is governed by distance constraints, inadequacy of the public transportation infrastructure, high cost of fuel/diesel, and traffic congestions. This physical distance reduces opportunities for members from different socio-economic classes to interact and mingle. In the same line of thinking, the lack of public spaces accommodating for the Lebanese from all socio-economic classes serves as another barrier against interaction. For instance, the availability of few public parks available in Beirut provides limited venues for social interaction. It is worth mentioning that Horsh Beirut/Snouabar, the only park in Beirut located in proximity to different communities of the city, is closed for public (see Figure 15). At the time where security measures control mobility in the cities and the newly constructed shopping malls and social venues cater for those who can afford it, the tree-line promenade (corniche) along the seashore remains the only open venue for Lebanese to interact.

6.3 THE SECTARIAN DIVIDE

A growingly visible divide in the cities of Lebanon is the sectarian cleavages. Affected by years of war and post-war tension, one could argue that sectarianism along with socio-economic regional disparities have paved the way to the development of a social segregation system that is built on closed and dense intra-group networks of social relations (Yassin, 2010). Such bounded intra-group relations, while not malignant per se, influence the level of acceptance and affect the level of co-existence in the Lebanese society. Such an argument is backed-up by the results of a recent study conducted with Lebanese youth which showed that even though the youth of Lebanon and of urban areas in particular socialize in common public spheres, they still hold negative stereotypes and do not trust members of the other sects (Ibid). Furthermore, the divisions are translated on the spatial milieu where places of residence have become increasingly homogenized with urban areas predominantly Christian, Sunni, and Shia etc… The sectarian division may not vividly appear but at times of political and communal tension, it surfaces as a determining factor of the way the city is lived and conceived.

Figure 15: Horsh Beirut with its Surrounding Area (in red hatch)

With the Down Town redeveloped after the end of the civil war to cater for higher income groups, the tree-lined promenade (corniche) along the seashore of Beirut remains the only public open venue for Lebanese to interact.

ANNEX 1: TASKS OF THE MUNICIPAL DECISION MAKING AUTHORITY

Source: Ministry of Interior and Municipalities, 2009

Setting the municipal budget, including transferring and opening credits

Granting different types of loans for carrying out specific projects that have been studied

Assigning some of the municipal present and future returns to the borrower or the State in Return for its guarantee for the debt and mentioning the annual due installments in the conservative municipal budget throughout the period of the said debt

Determining the rates of the municipal taxes according to the law

Specifications for deals regarding the supplies, works, and service

Specifications for selling the municipal properties

Social and family reconciliation

Approval and rejection of donations and ordered funds

Public programs for works, aesthetics, cleaning, health affairs, water projects and lighting

Naming the streets in municipal areas

Planning, improving, and expanding the streets, establishing gardens and public places and executing designs related to the municipality as well as the Master Plan in cooperation with the Directorate General for Urban Planning with the observance of the provisions of the expropriation law

Establishing shops, parks, racing places, playgrounds, toilets, museums, hospitals, dispensaries, shelters, libraries, popular residences, wash houses, sewers, waste drainageand others

Contributing to the tuition fees related to the public interests

Contributing to the tuitions fees related to the public schools pursuant to the provisions of the schools

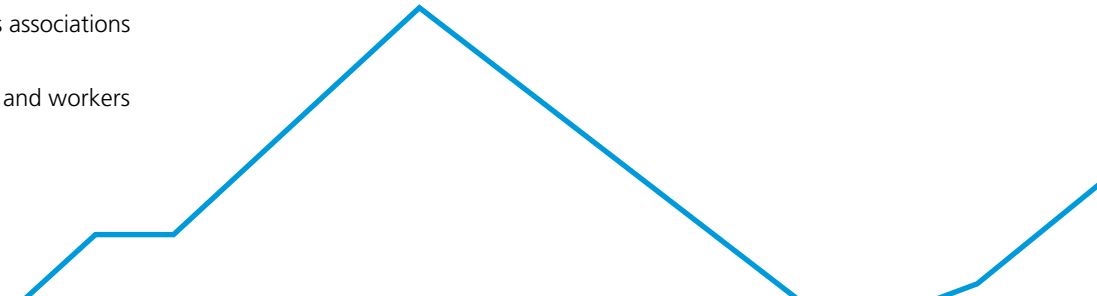
Regulating transportation of all types, determining its fees if necessary within the municipal area, with observance of the provisions of the laws in force

Rescuing the needy and disabled people and assisting clubs associations and other health, social sports and cultural activities

Organizing the systems related to the municipality servants and workers and determining the scale of the wages and salaries

Controlling educational activities and work progress in public and private schools as well as drawing up reports to the competent educational references

Establish or manage directly or indirectly, help or contribute to the execution of projected related to public schools, nurseries, and technical schools, popular residences, toilets, public wash houses and swimming pools, public hospitals, sanitariums, dispensaries, and other health establishments and institutions, museums, public libraries, theaters, cinemas, amusement centres, play grounds as well as other social and cultural and artistic institutions, local means of public transportation, and public shops for buying food



ANNEX 2: TASKS OF THE MUNICIPAL AUTHORITY EXECUTIVE BODY

Source: Ministry of Interior and Municipalities, 2009

Executing the decisions of the Municipal Council

Making municipal budget forecasts

Managing the funds and real estates of the municipality

Managing the revenues of the municipality

Ordering the payment of the municipal budget, settling and controllling the charges and giving notices of payment

Concluding contracts of rent, division and barter, accepting donations and ordered goods, purchases and transactions after having authorized such works according to the provisions of this law

Representing the municipality before the Courts according to the terms provided for in this law

Authorizing fees by virtue of a statement or an invoice

Taking measures to fight against alcoholism, epidemic or infectious diseases, and animal diseases

Demolishing insecure buildings and repairing them on the expenses of their owners

Receiving donations and funds ordered to the municipality

Taking measures to restrain begging

Ensuring the distribution of the necessary donations to help the victims of epidemics and disasters such as fires, floods, epidemic or infectious diseases, etc.

Maintaining public health, safety and security & facilitating traffic and circulation in streets

Transporting the dead, organizing funeral and burial ceremonies, digging graves and maintaing the good of cemeteries

Protecting individual and public health such as ensuring the health control of the meeting places such as hotels, and restaurants

Taking preventive measures against natural disasters such as fires, explosions, and floods

Imposing the necessary measures regarding the cleaning, the comfort, the safety and the security of public transportation means

Ensuring ethics and public decency

Protecting the environment, landscapes and monuments, maintaining trees and forested areas as well as preventing pollution

Granting construction permits, housing permits

Applying the provisions of the law to settle the violations against building regulations

Authorizing the excavation of public streets in order to lay water, electricity, telephone and wastewater pipes and others

Authorizing for extending sewer within the municipal area, after having collected the fees

Appointing municipal civil servants in accordance with the regulations of the municipality, ending their service, appointing daily workers within the limit of the amount allocated in the budget

Authorizing advertisements

Ensuring security through the municipal police in its capacity as Judicial Police

Taking the appropriate administrative and regulatory measures to maintain the smooth progress of the municipal work and to ensure municipal revenues, according to the provisions of the law on municipal taxes

Carrying out some tasks and urgent procedures related to public health and safety, transportation meas, vehicles, protocols and receptions, provided that they may be subject thereafter to the approval of the Municipal Council

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