

BOURJ-HAMMOUD BRIEF CITY PROFILE



ARCHITECTURE, PLANNING & ENGINEERING CONSULTANTS DIRAN HARMANDAYAN ARCHITECTURE PLANNING & ENGINEERING CONSULTANTS

APEC

BOURJ-HAMMOUD BRIEF CITY PROFILE AUGUST 2009 Prepared for the MUNICIPALITY OF BOURJ-HAMMOUD By Diran Harmandayan, Architect-Planner

This report provides a brief situational analysis of Bourj-Hammoud, prepared at the request of the Municipality, to inform future strategies for a sustainable development of the District. It investigates the state of the city identifying major issues, capacities, constraints, strong points and challenges influencing its evolution; highlighting critical positive and negative aspects pertinent to city development, with the aim of setting a preliminary base for debate and the elaboration of an integrated development process.

The study is based on analysis of available data, and various pertinent studies related to the District.

	Contents:	2
A-	Introduction	3
	M.1 - Location map – Beirut Region	4
	M.2 - Bourj-Hammoud Aerial Image	5
B-	Situation and Role	
C-	Territorial and Urban Structure	6
	C.1 - The Coastal Zone	6
	C.2 - The Internal Zone	7
	C.3 - The Peripheral Context	9
	M.3 - Bourj-Hammoud Roads Network	10
	M.4 - Bourj-Hammoud Existing Land use	
D-	Socio-Economic Structure	
	D.1 - Population Profile	13
	D.2 - Economic Structure	14
	M.5- Prevailing Economic Activities Map	17
E-	Public and Communal Services	
	E.1 – Education	18
	E.2 – Health	19
	E.3 – Leisure and Social Services	
	E.4 – Public Institutions	21
	M.6 - Public and Communal Services Map	
F-	Environmental assessment	
	F.1 – The Industrial Zone	
	F.2 – The Internal Zone	
	M.7 - Environmental Assessment Map	
G-	Development Issues	
	G.1 – The image of the District	
	G.2 – Poverty Alleviation	
	G.3 – Consolidation of Economic Capacities	
	G.4 – Environmental Upgrading	
	G.5 – Coastal Area Management Master Plan	
	Outline of Prevailing Problematics	
	Planned or Proposed Development Projects	
	Municipality Orientations	
	M.8 - Matn Seafront Development Project (LINOR)	
Annex	No 1: Beirut North-Littoral Development Projects	
	M.9 – Linor Project	
	M.10Beirut Port Development Project	
Annex	No 2: Zoning Regulations, Bourj-Hammoud and its Vicinity	
	M.11 - Bourj-Hammoud Zoning Map	
Annex	No 3: M.12- Bourj-Hammoud in Nineteen Thirties	41
	No 4: Initial SWOT Analysis	
	graphy	
-	l Views	
_ • · · · · · · ·		.0

CONTENTS

A - INTRODUCTION

The Bourj-Hammoud district is the geographical extension of Beirut City along the Mediterranean coastline; it constitutes the immediate eastern suburb of the capital by the seaside, separated from it by the Beirut River.

The Bourj-Hammoud municipality is part of the Matn Cadaa, which is part of the Mount-Lebanon Mouhafaza that surrounds Beirut City.

Housing a population roughly estimated at $90,000^{1}$ persons, it is a compact district, extending over an area of 2.4 km², within the Greater Beirut conurbation, with distinctive traits due both to its location and socio-economic characteristics, wherefrom stems the problematic of its development.

Until early last century, it was an agricultural area and marshlands, with scattered individual settlements. After 1928, Armenian refugees who had survived the Ottoman persecution started settling in the area, in compact quarters organized in regular gridiron patterns, each populated by natives from a village in their original homeland, which gave its name to each new quarter. In mid forties part of the population migrated to Armenia², followed by the influx of migrants from remote rural areas, attracted by employment opportunities in and around the Capital.

After 1946, it started attracting emigrants from the south, mainly Shiites and some palestinians, who settled mainly on the southeastern edges of the district (Nabaa), while in the sixties it witnessed an influx of Armenians from Syria, mainly Aleppo, who settled in the area and established their small businesses.

Between 1975 and 1995, the District witnessed drastic population movements as a consequence of the Lebanese conflicts' evolution, and the influx of displaced populations from conflict zones and hostile areas, and emigrants from rural areas, mainly Armenians from Beirut and Christians dislocated from their villages, along the displacement of its Shiite inhabitants, with continuous densification of the population.

The district is generally considered as a popular area that has evolved from a settlement with makeshift shelters to a densely populated area, an active commercial pole and an industrial and handicraft activities hub.

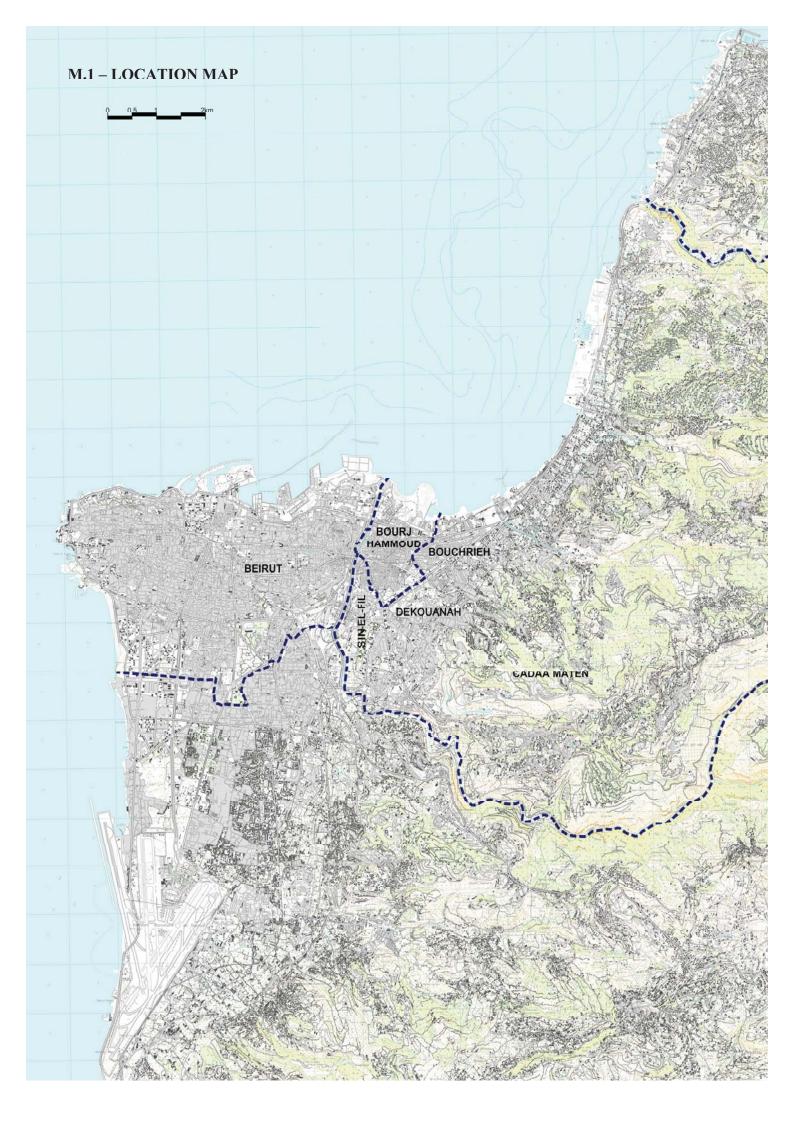
It is constituted from nine quarters: Shatiq-al-bahri (coastal zone), Dora, Haret-Sader, Marashe³, Nor Adana³, Nor-Sis³, Mar-Doumit, Nabaa, Ghilane⁴.

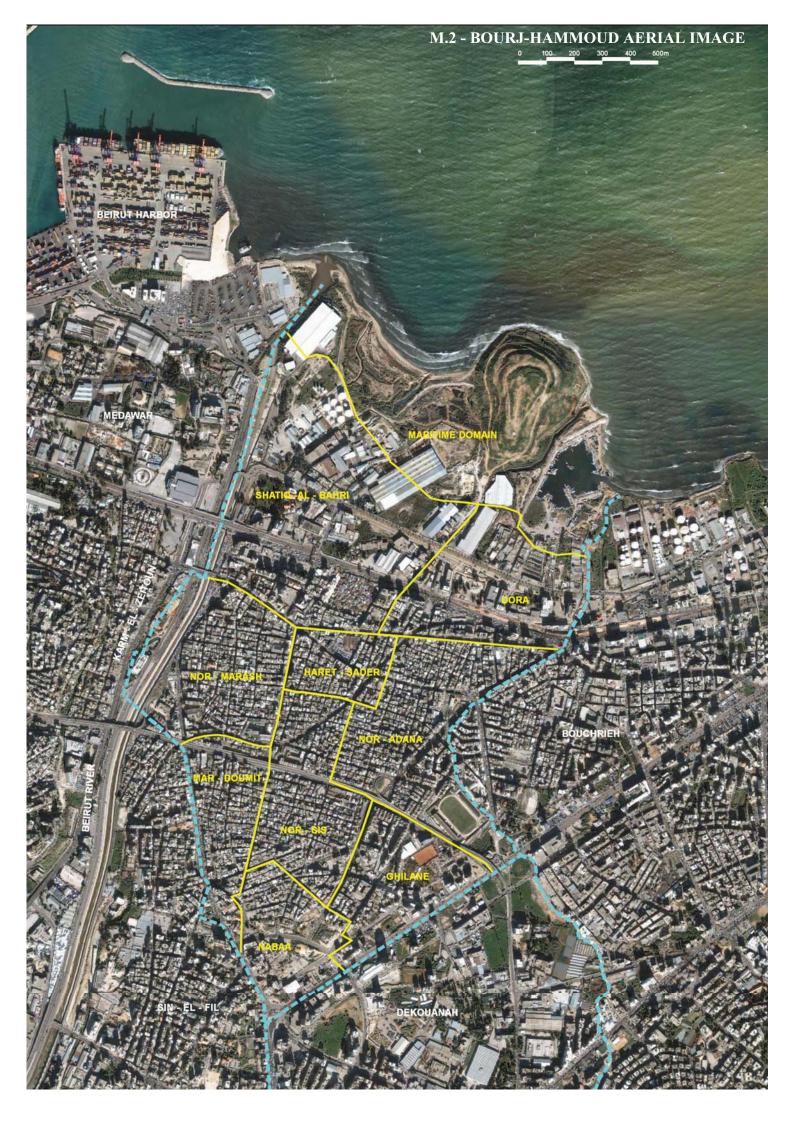
¹ Area assessment report, Bourj-Hammoud & Sin-El-Fil. World Vision, 2006. Precise estimates are not available.

² Soviet Armenia

³ Names of native villages and townships in Sicily of resident population.

⁴ Refer to map M.2





B - SITUATION AND ROLE

The Bourj-Hammoud district occupies a strategic location with respect to the Capital and the Greater Beirut Conurbation:

- Three kilometers away from the CBD with its emerging new center, It is the natural geographic extension of Beirut city beyond the Beirut River; while its sea front stretches up to the edges of the Beirut Port.
- It is the gate to the capital from the north and the North-Matn regions. The main coastal highway from the north as well as the main arteries from the North-Matn regions reach the Capital through it.
- It occupies an important part of the Matn Cadaa coastal plane, and a pivotal transitional location between it and the Capital.
- It constitutes the northern stretch of the densely populated belt between the Capital and its suburbs.
- It is an important pole of commercial and handicraft activities, with characterized social tissue and economical and residential dynamics.

C - TERRITORIAL AND URBAN STRUCTURE

The Bourj-Hammoud district extends on a plane along the Beirut River to a depth of around 2 km from the seashore, within a width varying between 0.9 and 1.3 km. These are low lands where the water table is not deeper than 1.5 meters from the surface soil level, in general.

The highway connecting Beirut to the North (Dora Highway) slices the District into two distinctive zones:

- North of the highway up to the coast is an industrial area, classified for heavy industries (coastal zone).

- South of the highway develops the bulk of the district, classified as residential-commercial (internal zone).

Two other major arterial through-roads cross the district, one across the middle of the industrial zone and the other in the middle of the residential zone⁵, dividing it into slices parallel to the coastline all along its depth. Additional through arterial roads are planned, one along the coastline and the other at the southern edge of the district.

C.1- THE COASTAL ZONE

The coastal zone is subdivided into two sections:

⁵ Refer to map M.3

a- The area extending from the Beirut-North highway to the limits of the parcels on the sea side, which constitute the official limits of the Bourj-Hammoud cadastral zone, is an industrial zone, covering an area of 57.83 hectares.

It is mainly occupied by industrial enterprises, warehouses along with small size service workshops mainly vehicles' servicing, besides some furniture galleries that have emerged lately improving the area's image; while office buildings erected lately along the frontage of the Beirut-North highway somehow upgrade the area's exposed façade.

It is mainly constituted of large parcels, varying between 30,000 and 1000 m^2 in area, with few smaller parcels. The buildings are generally 5 to 6 floors height besides large hangars, with few taller office buildings along the highway.

b- The coastal stretch extending north of the parcels' limits to the shoreline is considered "maritime domain". It is under the jurisdiction of the Ministry of public works within the Bourj-Hammoud municipality. It occupies an area of 52.03 hectares, mostly reclaimed lands on the sea, out of which a large waste dump hill covering an area of 17 hectares, which has been covered with soil to contain atmospheric pollution, elevated up to 49 meters above sea level.

The coastal stretch includes a fishermen's harbor with a capacity of 650 boats, which is the second in importance along the Lebanese coast, a solid wastes treatment factory next to the river mouth, and the waste dump hill.

The seashore was the only natural outlet for the area's population, with sandy beaches that have completely disappeared with the waste dumping on the seashore; while the industrial zone was organically connected with the residential zones inland, wherefrom it derived its workforce. The widening of the Beirut-North highway has completely separated the two zones without any connections besides two recently built pedestrian bridges.

C.2- THE INTERNAL ZONE

The internal zone, south of the Beirut-North highway, constitutes the main body of the district (152.5 ha) presenting a compact and densely built and populated area.

Major through-roads in the west-east direction and main north-south arteries along the western and eastern borders of the district constitute the main access network and link with the periphery. Along with few main roads crossing the district in the same directions, they dissect the area into compact urban blocks with dense gridiron patterns constituted of very narrow streets' mesh, some for pedestrian use only.

The parcels' sizes vary predominantly between $30m^2$ and $130m^2$ with larger parcels ($900m^2$ to $1500m^2$) on the peripheral areas mainly along the Highway; while few large parcels scattered in the area are occupied by various institutions. The few

existing open spaces are the intersections of the major roads, some of them landscaped including sculptures or artworks and managed by the municipality.

The area is nearly saturated with buildings except for few free parcels on the peripheries. Most buildings are attached along the streets, mainly two to three floors height in the west and the middle of the District, and four to six floors height at the east and peripheral areas, with a number of small flats in each building. Taller buildings have recently emerged along the northern edges mainly fronting the highway and mostly for office uses.

Predominantly residential, the area has witnessed gradual transformations and increasing use mixes, with the intensive development of commercial activities and handicraft and production workshops along the main roads and some internal streets mainly at the northwestern section of the area, transforming it into an active commercial hub. The extensive mixes of uses in some areas have naturally aroused the liveliness of the area meanwhile generating environmental conflicts among some incompatible activities.

The main roads where commercial uses and various handicrafts develop constitute the main linking web within the district, which along with the internal web of commercial streets (souks) in the Marache area have confirmed the district as an important shopping center and a major commercial pole within Greater Beirut.

The Beirut-North highway connects to Bourj-Hammoud area at its both edges under bridges, which constitute major entrances to the District. At the eastern edge (the Dora area), the circulation node on the highway has developed into an informal terminal for the available transport systems, mini-busses and taxi-services, connecting to various regions.

The distribution and positioning of various uses and activities structure the area into distinct $zones^6$:

a- The area between the Beirut-North highway and the Armenia street have developed into a mixed services (business), commerce, and small workshops area with few residential units. Financial services namely banks, money exchange, insurance and travel agencies develop along the highway and the Armenia street besides various commercial activities.

It represents a developing area with new constructions, and includes the highest and the most recent buildings in the district. It still includes few undeveloped lands on its western side. The Sanjak camp that was the only remaining shanty area has already been removed with a development project undertaken by the municipality.

b- The Nor-Marache area, on the western middle part of the district, in between the Armenia street and the Yerevan flyover, constitutes a rather homogeneous area displaying a small grain urban tissue, low rise buildings and a mesh of narrow streets in grid iron pattern. It has developed into a commercial hub including the main personalized shopping streets (souks) of rather popular nature, along characterized handicraft workshops.

⁶ Refer to map M4

The small residences on the upper floors suffer from the liveliness of the street activities, and the area presents the highest vacancy rates of the residential units, which include some interesting samples of traditional prototypes.

c- The eastern middle part of the district, in between the Armenia street and the Yerevan flyover, is a densely built and populated predominantly residential area, constituted of rather low quality four to six floors high individual juxtaposed buildings facing narrow streets, with scattered commercial activities at street level, mainly serving local residences.

d- The south-western parts of the district, the Nabaa area, is a densely populated and crowded residential area, with narrow streets that render difficult the servicing of the area whose urban environmental qualities could be considered to be degraded. Here also commercial activities and few workshops are concentrated on the major road (old Nahr-BeitMerry road) crossing the area from north to south. West of this road up to the river bed several servicing workshops operate, due to the allocation of the area by the municipality as a light industrial area, prior to the zoning regulations imposition in 1964⁷.

e- The south-eastern part of the district is a newly developing area with large number of still vacant lands. Commercial use, rather high rise constructions are developing along the Mirna-Shalouhi Boulevard, while in the interior areas the tendency is towards vertical individual buildings of modest residential character. The relatively wider street and larger parcel patterns develop a medium grain urban tissue.

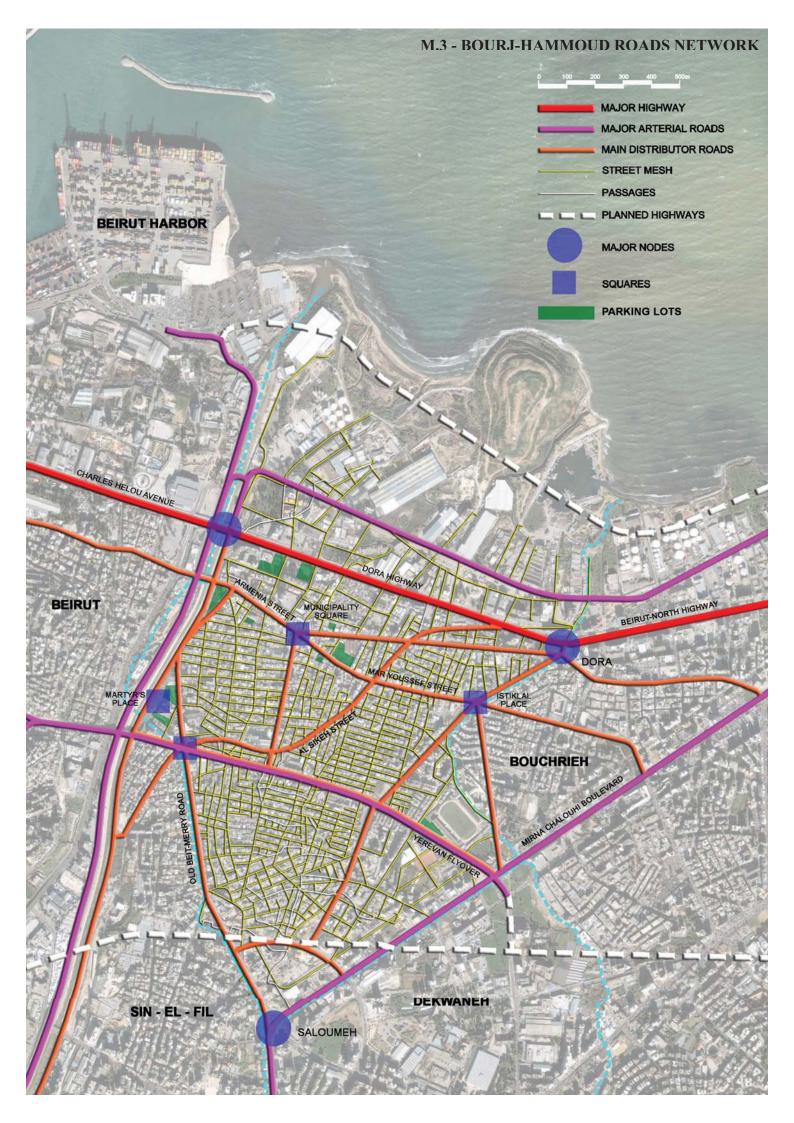
C.3 THE PERIPHERAL CONTEXT

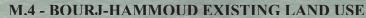
Even though a strongly distinguished entity within its context, with its characterized social tissue and economic and residential dynamics, as well as its fine grain urban tissue, Bourj-Hammoud merges within its diversified peripheral areas.

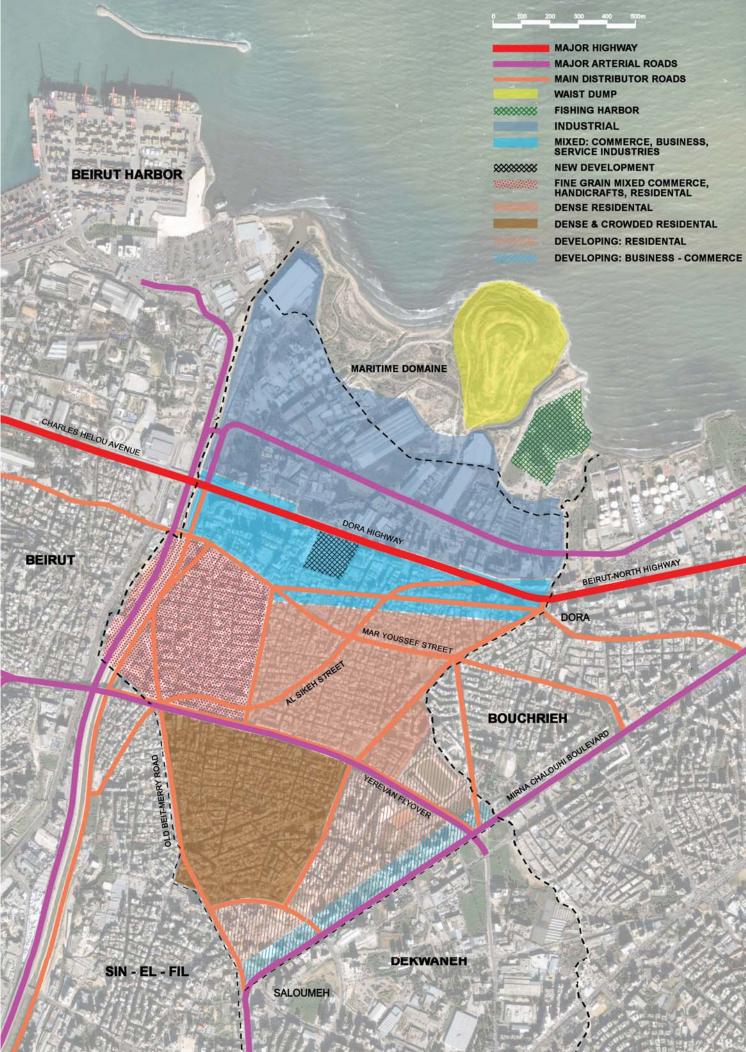
The coastal industrial area extends to the east along the Highway, while the Beirut River within its concrete channel and the arterial roads along it constitute a sharp barrier with the neighboring Beirut quarters connected across three bridges serving the Highway and two arterial crossroads. Originally, the areas on both sides of the river were continuations of each other, and the river was part of the city. The strip facing the river, in Beirut, is occupied by commercial and industrial activities, while beyond develop modest residential areas, with nearly similar characteristics to the residential areas in Bourj-Hammoud

The neighboring quarters to the south within the Sin-El-Fil region are continuations of dense popular residential zones with mixed commercial activities and few workshops. While to the east, within Sad-El-Bouchrieh and Dekwaneh regions, develop mixed commercial, various workshops and residential areas; with middleincome residential zones further east including defined industrial spots mainly occupied with service industries.

 $^{^7}$ Amended in 1970, Refer to annex $N^{\rm o}2$







D - SOCIO-ECONOMIC STRUCTURE

Accurate demographic data concerning Bourj-Hammoud is not available⁸; however, useful indicators could be derived from various sources, even though partial and often conflicting, taking into consideration the changes that affected the area during the past three decades.

The area upholds three significant characteristics:

- It presents an important human resources reservoir next to the capital and in the middle of a densely developed region including important industrial and handicraft production and service zones.
- It is itself an important production pole (predominantly handicraft and service activities), and an important commercial hub mainly oriented towards the middle and lower income groups.
- It is a major pole of concentration of the Armenian population in Lebanon, who predominate in the District besides Christian and Shiite communities.

The area witnessed successive sweeping population mutations in the past decades:

- The influx of Armenians from the Beirut areas during the Lebanese hostilities, and their investments in commercial activities contributed to the transformation of the area into a commercial pole.
- The subsequent upgrading of the residents' economic status generated a reversed migration to regions of higher status east and south of the region, maintaining meanwhile their businesses in the District.
- They were gradually replaced by immigrants from poorer backgrounds and workers from various origins mostly transient residents, because of the proximity of the area to employment sources, and the affordability of the residences in the district.
- Consequently, the misbalance between the flourishing commercial functions, along the developing shopping streets, and the stagnant, even deteriorating, residential areas inside the blocks is continuously accentuating.
- Similarly, the District witnessed the displacement of the Shiite population and their replacement by displaced populations from Christian villages, followed after the settlement of the Lebanese conflicts by a reversed movement.
- The continuous population mutations affect drastically the social structure of the district.

⁸ However, precise data concerning the population profile of the Armenian community residing in Bourj-Hammoud is provided by the "Survey of living conditions and social needs of Armenians in Lebanon 2002" conducted by Jinishian Memorial Program, which will be taken as an indicative guideline, considering that Armenians constitute a large bulk of the residing populations.

D.1- POPULATION PROFILE

The resident population numbers have fluctuated in the past decades parallel with the successive population movements⁹. Consequently, population estimates vary from $150,000^{10}$ to $75,000^{11}$. Considering the latter figure the population density in the "internal zone" is 492 persons per hectare, naturally the net densities vary between the various quarters.

Residents in Bourj-Hammoud belong to the middle and lower income groups, with the trend of gradual displacement of the middle-income groups outside the area and the increase of incoming singles, mainly foreign workers employed in the regions around Bourj-Hammoud.

The average household size of the Armenian community in the area is 3.8^{12} ; well bellow the Matn area average of 4.1, while the average of non Armenian households is close to the national average of 4.3^{13} . On the other hand the percentage of people above the age of 61 is 17% compared to the national average of 9.5%, while the rate of youths under the age of 18 is 29.5% compared to the national average of 33.2%. These indicators show the ageing of the resident population, which is not regenerating itself, young families leaving the area.

The illiteracy level in the region is low, but youths attending university are few as well. More than half of the youths between ages 16 to 18 drop out of school, and most of them enroll the labor market in low skilled jobs, to meet the financial assistance needed by their families.

The following table indicates the high level of activity of the population that includes higher rates of young people and women enrolled in the labor market compared to the national rates. While the high rate of unemployment is a direct consequence of the unskilled young labor available on the market that have dropped out of school at early ages.

	Bourj-Hammoud	Lebanon
School attendance: Percentage of population	18.5%	33.3%
Workforce: Percentage of population	52.3%	35%
Unemployment: percentage of workforce	16.9%	11.5%

Child labor is a major issue in Bourj-Hammoud, where youth engage in the labor market as unskilled workers, mainly in car repair, shoemaking and garment sectors. While almost all youngsters aim at emigration, mainly because of the political

⁹ The fluctuation of the student population in the District at various dates provides an interesting indicator of the demographic changes: it was 7513 pupils in 1973-74, rose up to 12009 pupils in 1983 (159.8%), it became 9373 pupils in 2006 (78%).

¹⁰ Municipality estimate

¹¹ Taking into consideration the residential units (18167 nr.) and the average household size in the Matn region (4.1) from 2003-2004 statistics by the Central Administration of Statistics (CAS).

¹² Survey of living conditions and social needs of Armenians in Lebanon 2002 conducted by Jinishian Memorial Program

¹³ Living Conditions Study, 2005 CAS.

instability and the scarcity of work opportunities in the country, namely for university graduates, which is a common situation all over the country.

Most of the working force (77.7%) is made of artisans and semi-skilled laborers engaged in handicraft manufacturing or servicing businesses, besides commerce; few (7.4%) manage private businesses. Most of them are not covered by health insurance services, while seasonal employment is widely practiced where workers are employed during the active seasons. Except for the artisans, most of the business owners live outside the District.

The large majority of households (83.7%) has an annual income less than 8000\$, and 43.7% less than 4000\$¹⁴. The rest in decreasing rates reach up to 27000\$. Naturally, the family annual income rate increases with the size of the household, and the increase of working individuals in it.

An important proportion of the resident households (43%) own their apartments. Most of them (63.2%) live in small apartments less than $80m^2$ in size, and a rate of 28.8% in apartments between 80 to $120m^2$ in size. 51.3% of the apartments in the District have one to two living spaces while 45.7% have 3 to 4 living spaces.

D.2- Economic Structure

Bourj-Hammoud is generally considered an active and buzzing trading and handicrafts production place in Lebanon.

20.6% of the functional units in the area are enterprises¹⁵, mainly concentrated in the "coastal industrial zone" and the northwestern section of the "internal zone" that is known as the "Souks of Bourj-Hammoud", where the commercial activities concentrate along main commercial streets branching into adjacent perpendicular alleys¹⁶.

The clustering of some similar activities within specific locations endows the place with the character of the local traditional "souks".

The District displays a large diversity of enterprises, varying from small crafts besides established industries and enterprises, covering an extensive range of trades whether manufacturing, trading or services. Larger institutions are located in the industrial zone the northern stretch of the internal zone around the Dora Highway and along Mirna-Chalouhi Boulevard, while smaller enterprises proliferate along the main and shopping streets and alleys within the "Bourj-Hammoud Souks".

The predominating trades, as percentages of the existing enterprises, could be classified as follows¹⁷:

- Textile and cloth, manufacturing: 353 Nr. 6%

¹⁴ The GDP per capita in Lebanon, according to UNDP "the Human Development report", is 5584\$

¹⁵ According to the enterprises' survey in Lebanon, 1996: CAS. There are 5882 enterprises in Bourj-Hammoud

¹⁶ Refer to MAP-5

¹⁷ The enterprises' survey in Lebanon, 1996 CAS

-	Leather products manufacturing: tanneries, bags, shoes etc.	344 Nr	5.8%
-	Textiles, cloth, shoes, bags trade:	851 Nr	14.5%
-	Jewelry manufacturing,: trade and accessories	270 Nr	4.6%
-	Woodworks and furniture:	156 Nr	2.6%
-	Metal industries:	176 Nr	3%
-	Vehicles servicing and trade:	484 Nr	8.2%
-	Construction and: building materials	239 Nr.	4.1%
-	Food industries:	80 Nr.	1.4%
-	Food retail:	707 Nr	12%
-	Miscellaneous commerce: electrical, electronics, personal articles and home appliance	866 Nr. 14.7%	
-	Food and beverage outlets:	274 Nr.	4.7%
-	Various service offices, banks:	274 Nr.	4.7%
-	Health services clinics:	142 Nr	2.4%
-	Personal and home services:	341 Nr	5.8%

Most are small and medium size enterprises; 91.4% of them employ less than 5 persons, and only 11 (0.2%) have more than 50 employees, while a large percentage¹⁸ are run by a lone owner with no employees. The majority (44.4%) of the enterprises occupy spaces less than $25m^2$, while 39.2% occupy spaces between 25 and $100m^2$. Most of the commercial enterprises are at street level, while some crafts and large enterprises develop also on floors.

Most small enterprises are family businesses, crafts and skills are transmitted from father to son or next of kin. It is noticeable that enterprise owners keep well pace with the technological transformations within their fields and adapt to them, while the lack of skilled laborers is in gradual increase in the area.

A substantive number¹⁹ of the employees in the local enterprises are Bourj-Hammoud residents, while the largest proportion of enterprise owners reside outside the District²⁰.

¹⁸ 60% of the commercial and handicraft units in the Bourj-Hammoud "souks" (north-western quarter of the internal zone) according to the studies conducted by the Lebanese University Department of Urbanism, 2004.

¹⁹ Ibid. 58% of the residents in the same zone.

²⁰ Ibid 53% of enterprise owners in the same zone.

The higher range trades are well organized in professional official bodies, like the syndicate of Goldsmiths, the associations of Shoemakers and Traders in Bourj-Hammoud. While various handicrafts lack any institutional framework, even though they constitute informal economic clusters enclosing trade of primary materials, manufacturing and products marketing, which needs to be consolidated and strengthened to sustain their competitiveness.

The pooling of these small enterprises within a confined area, along the advantageous location of the District, and the affordability of the proposed products and services, create the strong attraction potency of the Bourj-Hammoud "souks", and accentuate its landmark position within greater Beirut²¹. Here one can still find crafts and diversified servicing trades that are getting scarcer elsewhere in the region.

The attraction of Bourj-Hammoud commercial and crafts activities extends beyond the region around to visitors from Syria and the Gulf countries.

The importance of the commercial and production activities as well as the large population concentration around Bourj-Hammoud have compelled the establishment of several bank branches and money servicing facilities along the Dora Highway and south to the Armenia Street.

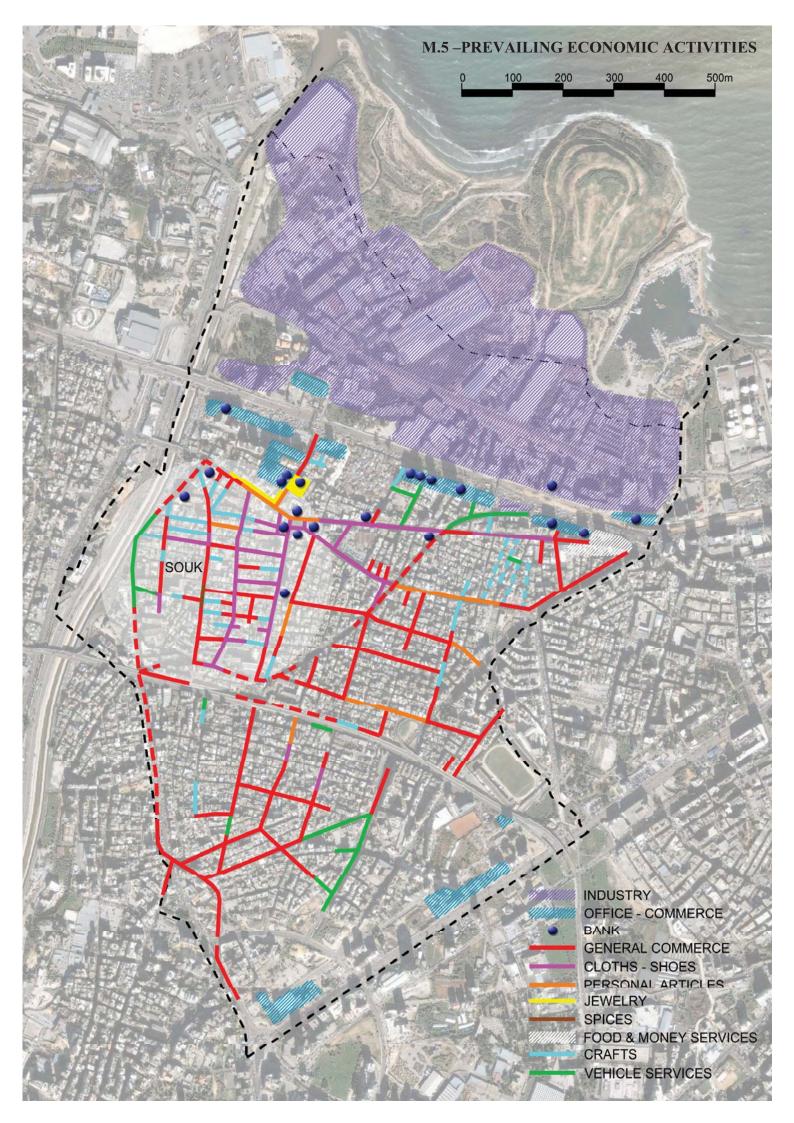
The industrial zone north of the Dora Highway is a self standing entity, with a variety of industrial enterprises diversified in importance as well as environmental impact. It is a major job provider at proximity; however it is difficult to assess its importance in this respect because of the lack of statistical data.

Tanneries, solid waste sorting and treatment plants, cement batching factories etc... are major environmental scourges in the area, besides the safety hazardous combustible tank farm. Other industries are mainly construction related factories (steel, aluminum, wood, marble and stone etc...), petro-chemicals, cleaning products, house appliances, furniture, cloths, press etc...with a multitude of vehicle servicing and other servicing small enterprises.

Lately furniture galleries and warehouses with higher quality constructions have developed in the area contributing punctually to its environmental upgrading.

²¹ ...its narrow alleys generate an intense buzz. One's senses are inundated with sounds, aromas, flavors and colors: fashion be it leather or textile, jewelry made from gold and precious stones, decorative ornaments in wood, steel, bronze and copper, photographs and works of art, optics, beauty and aesthetics, as well as food, spices and sweets merge together to create a unique atmosphere. Every type of skill can be found in this small and compact quarter of the city.

The fact that the entire process from design to manufacturing and sales all takes place in Bourj-Hammoud encourages customers in search of variety in quality and prices, as well as visitors who simply want to taste the charm of the narrow streets and feel the warmth of its sociable atmosphere. Special report Bourj-Hammoud – Arpina Mangassarian



<u>E</u> - <u>**PUBLIC AND COMMUNAL SERVICES**</u>

Considered one of the most deprived regions around the Capital, the District is intensively attended by community associations and organizations and benevolent assistance institutions that cater for most of the existing communal services in the District besides limited public facilities.

These organizations are very active in diversified fields: education, health, social assistance, cultural and sports activities. However they operate independently without a framework of coordination that would eventually render their services more efficient and comprehensive reinforcing their complementarities.

Because of its densely developed nature the District lacks completely open spaces and gardens; the two municipality football fields and the playgrounds of some schools constitute the only existing open spaces.

Few squares, mainly at the intersection of the main streets, have been landscaped as well as certain streets introducing some warmth and rendering the public spaces more hospitable and attractive.

E.1- EDUCATION

General education services are significantly present and catered by 28 schools targeting 9373 students²², as follows:

- 21 private schools, with 6891 students
- 3 public schools, with 1174 students
- 4 technical schools, with 1308 students.

Most of the schools (16nr.) provide for up to the intermediate grade, nine provide only for the primary grades, while only two cater for the secondary level. Most of the private schools are community schools; they are subsidized or supported by various associations, local or international, and occasionally supported by the Municipality.

These schools receive few students from peripheral regions, while a substantial number of local children attend schools outside the district. There are no facilities for disabled children in these schools; they are referred to specialized associations that provide education to the disabled²³.

There is one vocational school and one technical school, while three secondary schools provide technical teaching besides their general teaching programs.

Some schools provide for day-care services besides few day nurseries in the area.

²² Area assessment report, Bourj-Hammoud & Sin-El-Fil. World Vision, 2006.

²³ CAHL and Zvartnots schools.

Private schools are in rather acceptable conditions; they are sufficiently equipped and conduct regular extra curricular activities. Public schools are in poor conditions, and badly equipped²⁴.

School enrollment rates drop sharply to only 48.3% of the related age group between 16 to 18 years, from a rate of 80.7% of the age group between 13 to 15 years. Children are compelled to join the workforce after the age of 15, mainly for financial reasons, and are enrolled in low skilled jobs with very low wages. Besides, a high level of scholar retardation is witnessed.

In order to achieve self sufficiency in schooling needs within the region, assuming near 100% school enrolment for age groups below 14 years, up to the intermediate level, and 60% schooling for the age group 15 to 19 years, around 4500 additional school stations need to be provided. This could be achieved by both, upgrading and increasing the utilization efficiency of the existing schools, and constructing new schools, mainly comprehensive schools that could provide the youth with the choice of pursuing academic or technical formation at the secondary levels. Technical and vocational training as well as continuous technical formation programs and facilities are essential upgrading tools for the community, considering the socio-economical characteristics of the District.

An active community cultural center²⁵ located in Bourj-Hammoud provides music and arts teaching to various age groups. While a social organization, targeting children out of school between 11 to 19 years, offers vocational training followed by social training as well as illiteracy eradication programs.

E.2- HEALTH

Health services in Bourj-Hammoud are mainly provided by seven community health facilities besides the health center run by the Ministry of Social Affairs (MOSA). They are generally well equipped and dispense primary health care services to the local residents, including medical consultations in diversified fields, guidance, preventive and educative campaigns, they also dispense medications at very low prices, and some of them conduct also social works.

The area is well provided with pharmacies, medical laboratories and medical clinics, while hospitalization services are provided by hospitals located in the neighboring quarters²⁶.

Around 74% of the resident population is not covered by health or medical insurance (social security or private insurance), which is much higher than the national rate $(54.2\%)^{27}$. This is mainly due to the type of employment and the prevailing small and individual enterprises in the area.

²⁴ There are three public schools; one up to primary level and two up to intermediate level, catering for 1174 pupils, 12.5% of the school population.

²⁵ Levon Shant Cultural Center, run by the Hamazkain Association.

²⁶ Quaranteena public hospital in Medawar, Dahr-El-Bashek public hospital and Mar-Youseph private hospital in Dora (Boushrieh).

²⁷ Deduced from "Area assessment report, Bourj-Hammoud & Sin-El-Fil". World Vision, 2006.

Local associations and NGO's provide financial assistance for primary health care and treatment services, besides more limited support for those in need of hospitalization; however this type of assistance is not consistent, which in turn reflects the vulnerable situation of the poor²⁸. Some NGOs conduct programs targeting community members with special needs (psych-social). There is a day and night care center for the elderly, an assistance center for the retarded children, and a care and rehabilitation center for young girls in trouble, while the MOSA community center provides day assistance for the elderly and assistance for the integration of the disabled.

Various statistics indicate the prevalence of chronic diseases, namely diabetic, hypertension, anxiety and nervous disorders, most of them due to the living and work condition's stresses in the area.

E.3- LEISURE AND SOCIAL SERVICES

Social and cultural life is organized by community associations, sports and youth clubs, and scout associations that are very active in various fields; as well as the community and private schools in the District. However, the District lacks any physical infrastructure or set up for youth activities.

The municipality football arena is a major sports facility that used to be very active. It was upgraded in 2001, it hosts football matches and festivities while a municipality football field serves for training the local teams. The Municipality has projects for the construction of additional sports facilities adjacent to the main field.

The municipality constructed an indoor basketball court in 2005; it hosts tournaments and serves for training local teams.

A children's playground was constructed by the municipality in 2005, within a popular housing zone, as an outlet for the neighborhood children, another one is under construction in a different location. Other neighborhoods lack such facility.

A private sports club is restricted to those who can afford it.

There are two theaters in the region, which are active all year round and attract audiences from all over the Beirut region.

A number of small cinema houses operate in various areas of the District.

Informal entertainment for the youth is provided at the internet cafes that have proliferated lately.

There are no public gardens, and youth gathering spaces; so they gather at the streets' corners in the evenings. The municipality has planned and landscaped the municipality square as a small urban park with a kiosk and sitting spaces, mainly used by adults and elderly.

²⁸ Area assessment report, Bourj-Hammoud & Sin-El-Fil. World Vision, 2006

Recently, meeting and worship places of a new working class, originated from Ethiopia and Sri-Lanka, have emerged on the District fringes at the Dora area, attracting workers from all over the region at week ends.

E.4- PUBLIC INSTITUTIONS

Several public institutions are located in Bourj-Hammoud in independent buildings and locations, some related to the District itself, while others of regional scope considering the pivotal setting of the District, as follows:

Bourj Hammoud municipality.

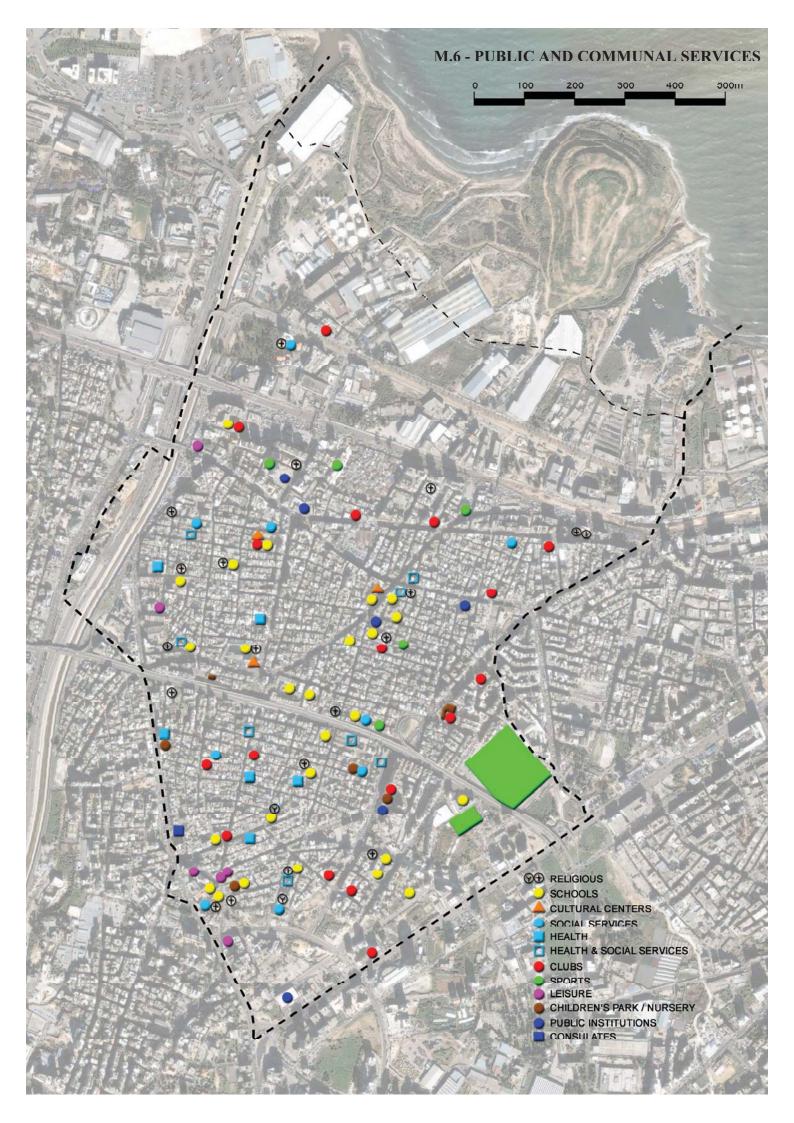
Bourj-Hammoud has been an independent municipality since 1952, and is member of the Matn-North Commune of Municipalities.

The local government, the municipal Council, is constituted from 21 members headed by the mayor. The population registered in the District elects them for a mandate of six years. It is dependent from the Ministry of Interior and Municipalities and is part of the Matn Union of Municipalities. Its organizational structure includes five departments:

- Administration (number of staff 8)
- Finance- accounting (number of staff 18)
- Architecture (number of staff 8) and public works (number of staff 34)
- Health (number of staff 14)

 $\circ~$ Security: municipal police (number of staff 74), municipal guards (number of staff 67)

- Center for development services dependent from the Ministry of Social Affairs (MOSA). It provides social assistance to the local population.
- Two Interior Security Stations, one in Bourj-Hammoud proper and the other in Al-Nabaa neighborhood, dependent from the Internal Security Directorate within the Ministry of Interior and Municipalities.
- Post office
- Civil defense center, serves the region
- The Beirut water office, serves part of Beirut and the Matn region.
- Telephone central station, Mount-Lebanon Section, Ministry of Communications
- The Social Security offices for the Matn region
- The Sukomi plant at the Beirut River outfall on the coast is a solid waist sorting and treatment plant, serving Beirut and the Matn regions.
- The slaughterhouse of the municipality is located in the industrial zone: it is not operational.



F - ENVIRONMENTAL ASSESSMENT

Bourj-Hammoud is intensively urbanized, densely populated and generally overcrowded area. Its only natural resources, the Beirut River and the coastline are highly polluted due to unsafe environmental practices; they constitute major pollution sources adversely affecting the District and its peripheral areas.

The Beirut River embanked in a wide concrete channel carries the wastewater discharged in it along its path inland, in addition to solid wastes dumped in it along its course; it becomes a source of nauseous smells that spread all over the District carried by the prevailing south-west and occasional north-west breezes that sweep the area. The problem is further compounded at dry seasons where the river dries up²⁹ and the riverbed transforms into swamps.

The coastal stretch is dangerously degraded and has become the backyard of the Capital and the Region where are located all environmentally hazardous and harmful services including:

- A solid waste dump hill that is still not treated produces occasionally obnoxious smells, even though it is covered with a soil layer for temporary protection. Its leachates infiltrating the sea have destroyed sea life within a radius of hundreds meters around.
- The Sukomi waste sorting and treatment plant, run by a private company commissioned by the central administration, does not respect any environmental safeguard constraints, where outflows block occasionally the river mouth at its outfall, and occasionally becomes the source of obnoxious smells emanation.
- The slaughterhouse of Beirut at the other side of the river outfall, where organic wastes are thrown in the riverbed and often incinerated on site, producing repugnant smells and fumes.
- The coastal open lands are transformed into used car tires dumping area, that are occasionally burned producing despicable smells and fumes.
- Wastewater collected from the region and Beirut city is discharged free into the sea, waiting for the construction of the sewage treatment plant projected in the area.
- The fishing harbor is badly affected by its vicinity, with badly polluted water stagnating in its basin.

They all constitute dangerous health hazards to the District and the region around, and detrimental to the image of the Capital, constituting its gate from the North. The coastline instead of being an outlet has become a real scourge to the District. The public services (Sukomi plant and slaughterhouse) do not abide by elementary environmental protection constraints.

²⁹ Around nine months of the year

These services are located within the "maritime domain" which is outside the municipality jurisdiction even though within its domain, consequently beyond its direct control. Its persistent complaints to the central authorities have remained so far without any serious actions.

F.1 - THE INDUSTRIAL ZONE

Some industries located within the industrial zone, like tanneries, are acute pollution sources, namely the obnoxious smells they diffuse all over the area. Environmental restrictions are not properly imposed on the existing industries, including those serving the public authorities like Sukomi.

The recent developments in the area (warehouses, galleries etc.) are improving its image gradually; however, some damaged buildings during the hostilities and still not rehabilitated, and the public spaces, namely the roads, which are in an unfinished situation without curbstones and sidewalks, degrade the environmental quality of the area.

Special treatment and disposal of industrial wastes do not exist; industrial liquid wastes are generally mixed with the domestic wastewater collection system and then discharged into the sea.

F.2 - THE INTERNAL ZONE

There have been intensive efforts by the municipality to upgrade public spaces, streets and squares, mainly major roads and shopping streets, including paving, illumination, landscaping and plantation. Besides, the facades of the buildings giving on the main roads and shopping streets have been upgraded, improving the overall image of the district.

However, the internal residential areas within the urban blocks remain in poor, and some of them in derelict conditions, with accentuated contrast compared to the commercial streets.

The only remaining urban block of makeshift houses in the area (Norachene - Sandjak camp), is subject to a development project by the municipality. The block, around 20000 m^2 of land area, has been expropriated, with the displacement of the local population and the small mainly artisanal enterprises from the area, and their replacement is projected by vertical blocks including parking spaces.

The densely built areas within the urban blocks with the absence of open spaces affect adversely the environmental quality of the District as a whole, same as the extensive mixing of uses, mainly some production and services facilities within the residential areas, along the transformation of some residences that have been vacated into storage spaces.

The building quality of most of the residential units is poor, they require maintenance and some of them rehabilitation.

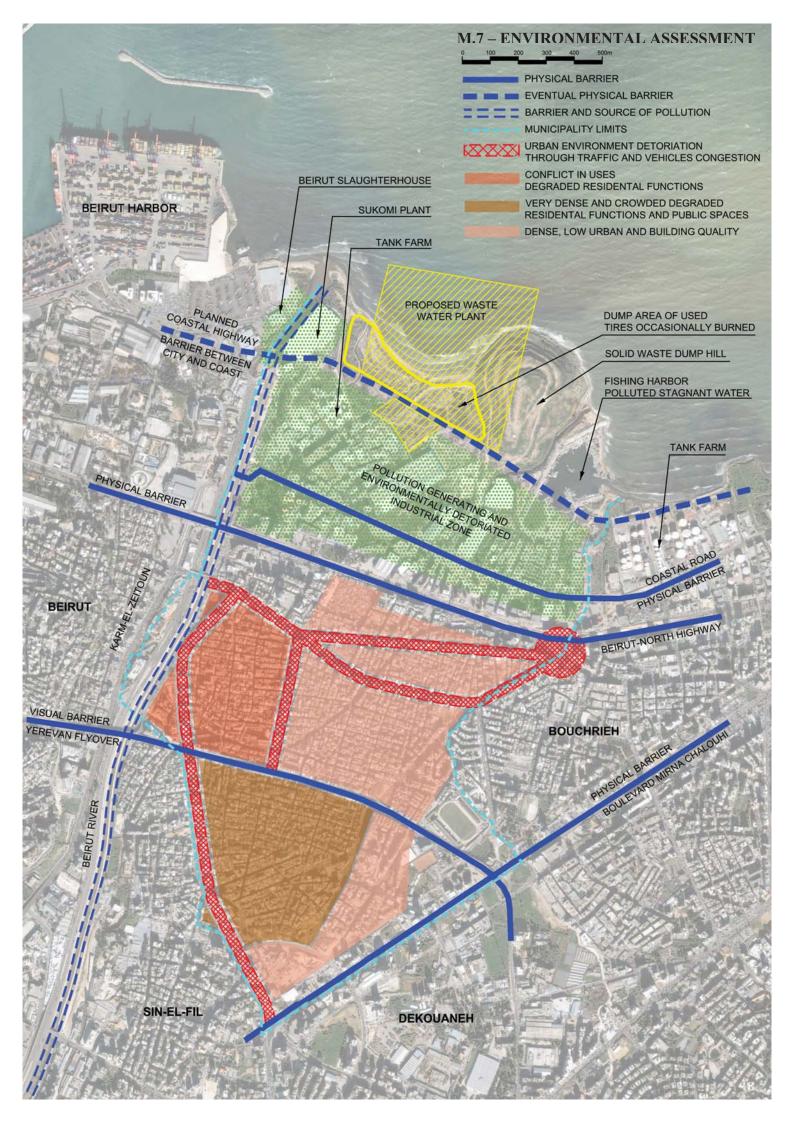
The infrastructure services, water and wastewater, have been rehabilitated and most units are connected and served by the systems.

Solid waste is collected by a private company, from waste containers located on the streets, which are often sources of nuisance and pollution mainly within the narrow streets and crowded areas, the same company undertakes the streets cleaning and sweeping.

The electric and telephone exposed wiring hanging on the buildings' elevations is a major source of visual pollution besides the hazards it creates. Another noise and fumes pollution source is the private generators that supply electricity to the units to supplement the shortages of power supply.

A major pollution source is the traffic congestion within the main streets with the absence of parking spaces, which adversely affects the accessibility of the area mainly its commercial functions.

Generally, the relation of the arterial through roads with the district is not solved yet; whether at the level of connectivity with the district or their physical impact on their context. They create strong physical barriers and their interface with the district is problematic, mainly the problem of the newly constructed Yerevan Flyover through road cutting through dense residential areas, elevated at the residential units' level, some of them being distanced only about one meter from the viaduct.



G - **DEVELOPMENT ISSUES**

Bourj-Hammoud has evolved from a makeshift settlement into an active district and a successful commercial landmark. However, development issues have gradually compounded along with the transformations that affected the area.

The successive population movements maintained the District in a continuous mutation process without any planning for balanced development that could optimize its potentials and mitigate the threats it faces. A strategy for sustainable development is essential at this stage to focus efforts towards clear aims.

The major issues to be addressed in this respect could be summarized through the following concerns that are all interrelated:

G.1 - THE IMAGE OF THE DISTRICT

Even though the area acquired the position of an important commercial pole, it is still considered a residential district for the poor, which is one of the major reasons compelling new families and residents who have upgraded their economic status to leave the District to better neighborhoods, and their substitution by transient populations³⁰, contributing to the acceleration of the District's image downgrading.

The upgrading of the District's living environment, mainly residential areas, is essential to maintain the local population in place. The harmony between their improving economical status and the residential environmental qualities is crucial for the regeneration of the population and the sustainability of the District's development, without undermining the necessary harmony required between the environmental qualities of the commercial and residential areas.

The strengthening of the residential functions of the District will attract middle income families working in the region and in Beirut, shortening the travel distances to their employment locations, contributing meanwhile in an indirect manner to alleviate the circulation endemic problems that affect the Beirut region.

The marginalization of the District is also one of the reasons that allowed the consideration of its coastal zone as the backyard of the capital.

While the pivotal location of the District, in an upgraded environment, will attract additional public regional agencies³¹, as well as service functions like banking, money servicing etc. that already cluster along major streets.

As the main gate of the Capital from the north and the East, its upgraded image is an intrinsic part of the Capital City's image improvement. In this respect Bourj-Hammoud constitutes the only urban degraded area between Beirut and its Northern and Eastern suburbs.

³⁰ Mainly foreign workers

³¹ Actually public regional agencies located in the District are: the Social security offices, the Telephone central station Mount-Lebanon Section, The Beirut water office for the Matn Region, the Civil defense center serving the region.

G.2 - POVERTY ALLEVIATION

Qualified working capacities could be easily absorbed by the economic activities in the District, since the later suffers from the lack of skilled workers that can itself assist in the flourishing of these activities. In this respect, capacities improvement is essential, with programs to sustain children education and their instruction and formation at comprehensive schools into the skills and techniques expected by the labor market, besides the possibility of academic formation. This will help the gradual eradication of child labor, and improve the income of young skilled employees.

Production institutions in the area could be directly involved in assisting in the development and financing of such programs and institutions that would provide the skilled labor they need so much to improve their production, and along with extension continuous formation programs upgrade in a constant manner the capacities of their existing workforce in order to meet the fast developing techniques worldwide, thus improving their competitive capacities in the market.

G.3 - CONSOLIDATION OF ECONOMIC CAPACITIES

The small and medium enterprises that prevail in the District are subject to the market fluctuations and the influx of cheap imported products; they need orientations and guidance to develop their production and marketing capacities, and eventually their organization into clusters that will strongly consolidate their competitiveness and economic stability.

The installation of SME support services could be easily financed by local finance institutions supported by international agencies.

The tendency to enroll foreign workers is gradually increasing in the labor intensive enterprises because of the very low rates accepted by them, evading meanwhile local employment guaranties and social security constraints. Drastic actions in this respect are required from the public authorities.

G.4 - Environmental Upgrading

The improvement of the urban quality requires a comprehensive plan addressing the following issues:

- The review of the existing zoning regulations that date back to 1970, in view of regulating and rationalizing the conflicting land uses, maintaining meanwhile the necessary diversity that is essential for the vitality of the District, and establishing the framework for the upgrading of the existing premises without adversely affecting the prevailing urban tissues.
- Action plans for the upgrading of the residential areas, along the upgrading of the public spaces within the residential areas, and the possibilities of creating open spaces.

The upgrading of the residential functions will necessarily imply Private-Public partnerships, not affecting the small ownerships prevailing in the area, and targeting essentially at the sustenance of the local population in place and the revalorization of the vacant housing units.

In this respect, carefully planned small pilot projects, in different chosen spots, could constitute the generator for further investments in the regeneration of the District.

• Accessibility and congestion problems have to be addressed within the following orientations:

- The through highways and arterial roads cutting the District into separated sections have created meanwhile opportunities of direct linkages of the District and consequently its opening up to the various parts of the region and the Capital. These linkages need to be elaborated and optimized.

- Improving accessibility and reducing congestion require basically management of the car access; with the provision of sufficient parking spaces through multi-floor car parking, specifically close to the commercial areas access locations, with the attraction of private investments in this respect, through incentives to encourage investments in such projects, coupled with strict road side parking restrictions.

Along with the establishment of a shuttle system serving the main commercial streets, with fancy environmentally friendly small vehicles, could render shopping an exotic venture to the visitors, mitigating meanwhile the environmental pollution and roads' congestion that are the major repelling causes from the area.

• Planning efficiently the informal transport terminal at Dora that is essential for the vitality of the District, constituting one of its major approach points.

• Planning the interrelation and mitigating the detrimental impact of the through arteries crossing the District, mainly the recently built Yerevan flyover cross road.

Each one of these arterial roads presents its peculiarities in relation to the quarters it crosses. Consequently, the interrelation of each one of them has to be addressed separately within its context, considering the access requirements to the District, the interconnection between its separated parts, and the connection of the District with the coast.

The Yerevan Flyover is a visual barrier, but presents opportunities concerning the linear space under the bridge that could be exploited advantageously, while the effect of its proximity to some residences has to be solved.

• Investigating solutions for the Beirut River channel up to its outfall, addressing both issues of its environmentally detrimental situation and its being a strong barrier between Bourj-Hammoud and Beirut City.

• Establishing and enforcing environmental controls for the industrial zone, and reviewing the land use to define the type of industries and activities desired in the area.

• The public spaces, squares, roads, walkways and pedestrian streets represent the first impression of the District; their upgrading is essential to improve its image, besides landscaping and the provision of the adequate urban furniture to render these spaces hospitable, attractive and comfortable.

G.5 - COASTAL AREA MANAGEMENT MASTER PLAN.

Because of their strategic location and emerging urgent needs at unstable situations, the coastal area and the industrial zone that continue each other, have been subjected to controversial practices and various planning projections aiming at unilateral purposes and specific issues without any global vision or relation to the District that allows the sustainable development of the area. In its actual situation, the coastal stretch is obviously an environmental threat to the region and the sea.

The problematic of the area consists in both its actual deteriorated situation, and the projected controversial developments that are under scrutiny and fundamentally questioned by the Municipality, at the absence of a global vision.

Outline of the Prevailing Problematics

• The industrial zone is classified to receive heavy industries, class A which includes all industrial uses (decree No 14313, dated 21/4/1970, as a modification of the initial decree No 16948 dated 23/7/1964).

The area around being intensively urbanized and not adequate any more for environmentally threatening or hazardous utilizations, in addition to its strategic location next the Beirut Harbor, in addition to the recent developments in the area more consistent with the location potentials, a review of the zoning regulations is essential. The Municipality has requested from the Directorate of Urban Planning the preparation of a development Master Plan for the area and obtained the government decree Nr. 525 dated 28/11/2008 putting the area under study.

• The solid waste dump that developed on the seashore during the Lebanese hostilities has been covered with soil awaiting treatment, which depends on the future destination of the area. It constitutes an environmental threat to the whole region and the seashore where its leakates dissipate.

• The Sukomi solid waste sorting and treatment plant on the seashore at the outfall mouth of the river, which was initially installed in 1996 as a temporary solution without consulting the Municipality, is gradually acquiring a permanent aspect.

Besides its environmentally hazardous character, it is incompatible with the characteristics of the location, considering both the coast attributes and the latent value of the location next to the Beirut harbor and in the middle of a densely urbanized area.

• The fishing harbor is the only activity that has a humanizing character in the area, which is threatened by the various suggested planning proposals in the area.

It suffers from the environmentally detrimental conditions all around. However, it presents the potentials of development to include a fish market and a market of fish food products that originally existed in the area and was very much praised but vanished with its environmental deterioration. The whole could eventually develop into a vital attraction zone.

Planned or Proposed Development Projects

• A large sewage treatment plant was allocated in the area, based on the "waste management Masterplan for Lebanon" prepared in1982, serving an extensive region including most of Beirut city and the urban settlements on the western slopes of Mount Lebanon, covering the whole basins of the three rivers Nahr Beirut, Nahr-El-Mowt and Nahr-Antelias, including 50 municipalities some of them located in remote rural mountainous areas, with a planned service population of 3 millions, based on estimates derived for the purpose with the absence of population estimates at that time.

The specifications propose the adoption of conventional treatment system with open treatment tanks, on lands estimated at about 260,000 m^2 to be reclaimed on the seashore.

The municipality assisted by local NGO pressure groups questioned the project on the following grounds:

- The over sizing of the equipment; with the knowledge that the population of the whole country is about 4 millions³², while the served areas' population is 1.2 millions according to recent official estimates, with projections to reach 1.4 millions in 2040.

- The rationale behind draining the wastewater from remote rural mountainous areas to be treated in a sensitive urban area; mainly considering the fact that the treated effluent is projected to be discharged in the sea, while there are shortages of irrigation water that could be supplied by the effluent from treated waste within these areas. Consequently, the municipality requested subdividing the catchments areas into three or four zones that could be served by smaller plants located inland, using the effluent for irrigation or in the worst case feeding the three rivers that are transformed into swamps and environmental hazards in the dry seasons.

In addition to the fact that smaller plants could be easier to construct and maintain by local capacities, less hazardous on their environment, allow the adoption of wider alternatives from a larger range of advanced techniques that are simpler to handle.

- Reviewing of the requested treatment plant specifications to comply with its location in an urban area, considering its impact as well as the possibility of adopting enclosed systems and using the surface as an open park badly needed in the area, and

³² According to statistics by the General Directorate Of Statistics

consequently conducting impact and feasibility studies, considering meanwhile the local benefits from such regional equipment.

The issue remains pending. However, responding to pursues by the Municipality, academic institutions, local and from Frankfort, expressed interest in assisting the municipality to conduct further studies in this respect and finance feasibility studies for more efficient alternatives. The request of the Municipality to the relevant authorities in this respect has remained without response so far.

• A master plan was approved by the government in 1995 to dump the seashore and reclaim lands for development all along the Matn region (Cadaa) seafront³³, and a development real-estate company (LINORD S.A.L.) was created by decree to realize the development, where all the coastal area of Bourj-Hammoud is allocated as infrastructure zone.

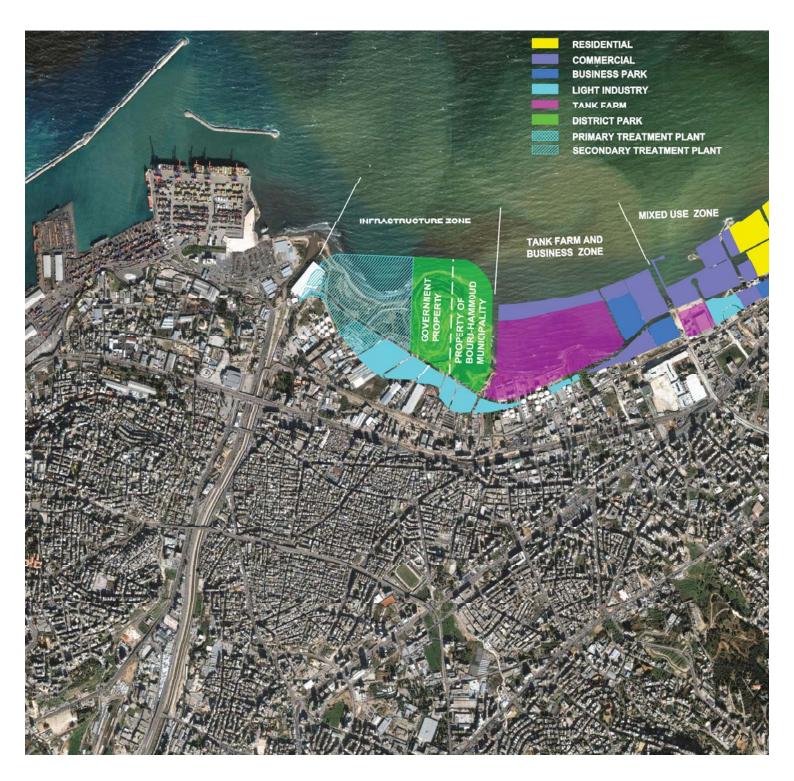
Even though several modifications were introduced on the approved master plan to overcome emerging unforeseen problems, like a coastal highway needed to alleviate the through traffic on the Beirut-North highway, so far no practical actions have been taken. However, the latest modifications allocated the waste dump hill area as an urban municipal park, upon the insistence of the Municipality, as a trade off for locating the wastewater treatment plant in the area.

• From its side, the Beirut Port Authorities have developed proposals to extend the harbor facilities into the area, and allocate half the area as tanks farm and the other half as free zone.

Municipality Orientations

Considering the degraded and environmentally dangerous prevailing conditions of the seafront, and the evolving conditions of the industrial zone, besides the uncoordinated and questionable imposed proposals that ignore completely the needs of the area, and overlook their eventual impacts on the region, the Municipality endeavors to establish a comprehensive development master plan for the coastal zone.

³³ Refer to annex Nº 1



M.8 - MATN SEAFRONT DEVELOPMENT PROJECT (LINOR)

(Area allocated to the municipality 17.58 hectares)

ANNEX Nº 1

BEIRUT NORTH-LITTORAL DEVELOPMENT PROJECTS (LINOR)

The development of the Northern Littoral of Matn, extending between Nahr Beirut (next to the Harbor) to Antelias, including the Bourj-Hammoud Littoral, as a continuation of the further north littoral development up to Dbayeh already implemented, was decided by Decree N° 6699 dated May 4^{th} 1995.

The master plan was approved by decree N° 7309 dated September 25^{th} 1995, defining the zoning, the land uses and the roads' network. The establishment of a Company for the Development of the Northern Littoral (LINOR) was decided by decree N° 7480 dated November 2^{nd} 1995. Since several decrees introduced modifications on the master plan and the bylaws of the company have been issued.

The development extends on mainly reclaimed lands along the coastline, including the Maritime Domain all along, i.e. beyond the private parcels along the coast.

The global area to be developed extends over a surface of 2.400.000 m^2 , with a net exploitable area of 1.300.000 m^2 .

Around 729.500 m^2 out of the total area are located within Bourj-Hammoud boundaries, allocated as follows:

- 175.800 m², municipal park

- 90.500 m², government park

- 295.500 m², waste water treatment plant (Primary and Secondary treatment)

- 90.200 $\mbox{m}^2,$ light industrial area, as an extension of the existing industrial zone.

- 260.500 m², public utilities, infrastructure and open spaces

The area East of Bourj-Hammoud up to Nahr-Al-Mowt, is allocated as mixed industrial commercial area as follows:

- 276.000 m², tank farm

- 14.400 m², light industries

- 77.300 m², commercial use

- 47.800 m², commercial/recreational

- 53.300 m², business Park

- 95.100 m², public utilities, infrastructure and open spaces

The areas further north are basically allocated for mixed residential and commercial/leisure developments, as follows:

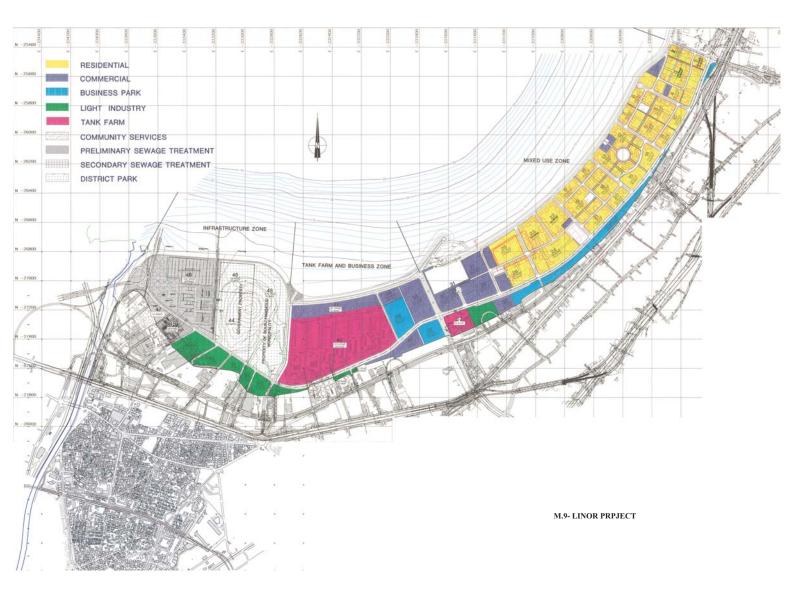
- 18.700 m², light industries

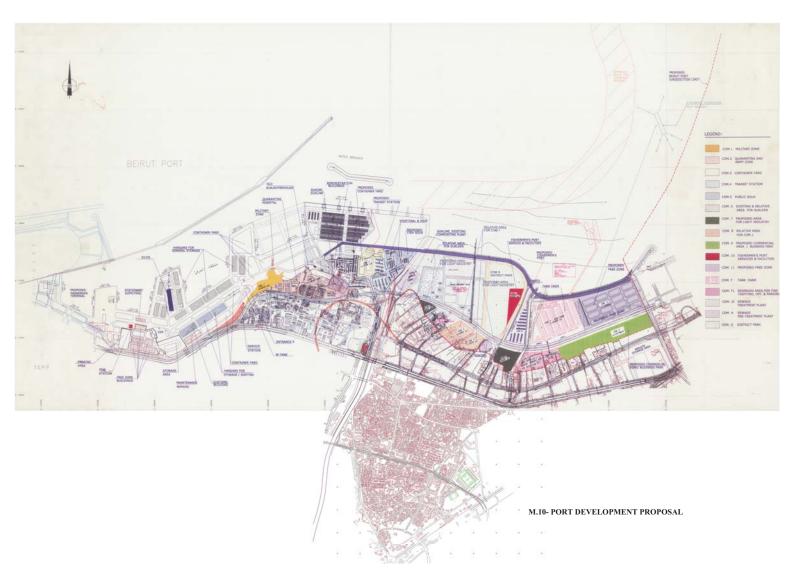
- 25.100 m², Tank farm

- 51.200 m², business park
- 18.700 m², light industries
- 44.000 m², commercial
- 189.400 m², commercial / residential
- 42.300 m², residential / community
- 41.177 m², residential / hotels
- 59.800 m², residential / education
- 70.000 m², residential / sports
- 254.400 m², residential
- 18.700 m², light industries
- 300.700 m², public utilities, infrastructure and open spaces

Evidently the areas within and next to Bourj-Hammoud are allocated basically for infrastructure services of the Matn and Beirut regions. The project remains pending considering the stagnation of the similar further north development project (fronting Dbayeh) where the sea reclamation and the infrastructure are completed waiting for investors for development, for more than a decade now.

The only active issue in this project is the projected Waste Water Treatment Plant whose conception is questioned by the municipality.





ANNEX Nº 2

ZONING REGULATIONS

BOURJ-HAMMOUD AND ITS VICINITY

Building and parceling in Bourj-Hammoud as well as its neighboring areas in the Matn region are controlled by the decree N° 14313 issued on 21st April 1970, which was a modification of an initial decree N° 16948 issued on 23rd July 1964, the first zoning regulations applied on the area.

It basically regulates land use, the building density and the land parceling constraints as indicated in the following table.

zone	Allowed uses	Allowable maximum building footprint as % of land area	Allowable maximum built areas as % of land area	Set backs	Maximum allowable building height	Minimum buildable parcel size*	Minimum buildable parcel width and depth*	Minimum size for parceling	Minimum parcel width and depth for parceling
С	Industry commerce	75%	1.75%	3m	-	500m ²	15m	1000m ²	20m
D	Residential commerce	50%	2%	-	-	200m ²	8m	400m ²	15m
B2	Residential commerce	40%	2%	-	-	250m ²	10m	600m ²	16m
	Industry commerce	50%	2%	-	-	250m ²	10m	600m ²	16m
B2-1	Residential commerce	40%	2.2%	-	-	250m ²	10m	600m ²	16m
B2-2	Residential commerce	40%	2.4%	-	-	250m ²	10m	600m ²	16m
Neighboring areas within the Beirut municipality decree N° 9285 dated 12/10/1974									
7		70%	3	From road	-	100 m ²	7m 9m	250 m ²	12
6		50%	2.5	limit	-	200 m ²	8m 12m	400 m ²	15
5		40%	2.5	From road limit and neighbor	-	250 m ²	12m 14m	500m ²	17

Notes: -See attached Bourj-Hammoud zoning map

-Building regulations allow construction on parcels smaller in size (area and depth and width) down to 2/3 of the area and sizes stipulated in the building regulations, but not less than 7 meters in depth and width.

Since most of Bourj-Hammoud was already built before these zoning regulations were issued, their impact is only effective on new developments on the peripheral areas and along the Beirut-North highway and Nirma Shalouhi Boulevard that presents attractive investment opportunities, as well as on areas that have been subjected to rehabilitation programs replacing the original shanty zones with new developments.

The installation of heavy industries along the coastal area was allowed since the mandate period (1940), while the development of an industrial zone north of the Beirut-North highway was determined in early decisions by the municipality in 1954, same as the development of light industries west of the Nahr-BeitMery road up to the river bed. The first zone was confirmed later by the zoning decrees while the latter area, where generally servicing workshops had developed and still exist, was merged to the residential-commercial areas.

Most of the areas south of the Beirut-North highway are already densely built; and since most of the constructions have their land coverage (building footprint) higher, and are built on parcels smaller, than the allowable limits by the zoning regulations, very few landowners are encouraged to replace the existing buildings; particularly due to the fact that the building regulations allow them additions on their buildings in case the total existing built-up areas are lower than the that allowed by the zoning regulations and the parcels conform to buildable parcel constraints, respecting the existing building footprints on these parcels.

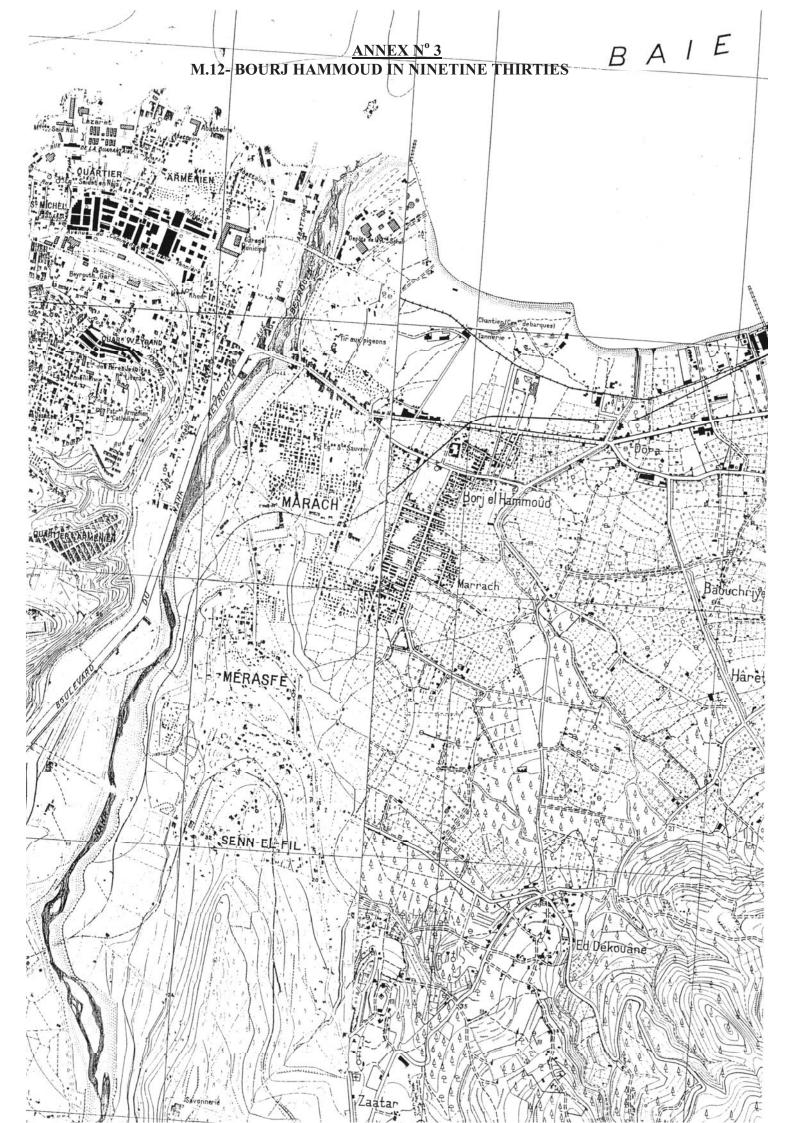
Consequently the main construction activities in the area consist of restoration and addition on existing constructions, mainly commercial spaces at ground level, besides modification in uses from residential to commercial or eventually services (office or workshops). Investments in residential functions is discouraged by the degraded quality of these spaces, the non profitability considering the low rents due to the context compared to the scale of investments required, and the modest conditions of owners who do not have the capacities to invest in upgrading their premises.

In general investments in the area are attracted towards the commercial spaces and activities while restrained from residential uses, except on the south and south eastern fringes of the District where modest but rather good quality residential developments have occurred lately.

The construction permits registered at the "Order of Engineers and Architects" between 1996 and 2006 related to Bourj-Hammoud, concern 1 to a maximum of 9 parcels yearly, with an average of 4.6. While the total of the yearly requested built-up areas fluctuated between $2000m^2$ and $9000m^2$ from 1996 to 2001, and between $7000m^2$ and $27000m^2$ from 2002 to 2006, most of them located along the Beirut-North highway.

The zoning regulations in the peripheral regions allow relatively higher rates of exploitation to the east in Boushrieh, and to the south in Sin-El-Fil regions, and still higher rates to the west beyond the river in Beirut, where the exploitation rates increase in a pyramidal manner towards the central area (CBD).





<u>ANNEX Nº 4</u> Initial SWOT Analysis

STRENGTHS

- Strategic location within the Greater Beirut conurbation, it is:
 - situated at close proximity to the CBD
 - the Gate of the Capital from the North and East,
 - the main link between the Capital and the North-Matn region.

• It presents an important human resources reservoir next to the capital and in the middle of a densely developed region including important industrial and handicraft production and service zones.

• It is a recognized handicrafts production pole, and a renowned commercial hub mainly oriented towards the middle and lower income groups.

- It harbors clusters of specialized trades (like jewelry manufacture and trade)
- The proximity of residential and diversified employment sources of production, services and trade functions.
- The neighborhood is well framed with active community, welfare and cultural associations and institutions.

WEAKNESSES

- The prevailing image of the neighborhood considered as a residential district for the poor.
- The ageing of the resident population, which is not regenerating itself, young families leaving the area.

• The population instability and mutations that affect drastically the social structure of the district and lead to its replacement by poorer populations or transient residents.

• The accentuation of the misbalance between the flourishing commercial functions along the developing shopping streets, and the stagnant, even deteriorating, residential areas inside the blocks.

- The tendency of self enclosure of the various community groups within nearly segregated neighborhoods, with the lack of interaction among them.
- The multitude of environmentally detrimental practices and activities in the District, mainly the industrial area and the coastal zone.

• The ageing of the building stock without any outlook for urban regeneration.

• The limited financial and decisional capacities of the municipality due to the prevailing administrative centralization, and insufficient human capacities.

OPPORTUNITIES

• Bourj-Hammoud has the potential to confirm itself as a differentiated commercial and handicrafts hub with the exotic characteristics of the oriental "souks", versus the trend of depersonalized shopping malls proliferating in the Beirut region.

• The mixed uses and activities in case adequately organized and positively exploited could enhance the liveliness of the District.

• The existence of groups of similar trades and production activities render possible the emergence of strong trade clusters.

• The existence of a potentially active population that needs support to materialize its potentials.

• The strength of community ties still persistent in the District could facilitate development actions and endeavors.

• In case residential qualities are enhanced, the District could provide a substantial residential stock, for the middle classes, at proximity to the Capital and the large employment market of the region around.

• The neglected seashore with its actual degraded and environmentally hazardous situation constitutes a huge opportunity to be transformed into a public maritime park next to the fishing port, which can become a major outlet for the population all around (part of Beirut and coastal Matn).

THREATS

• Its geographic location next to the Capital and the converging point of the North-Matn region has imposed on the area regional infrastructure services out of the control of the municipality:

- The major through arteries linking to the North and East

- The major infrastructure services of the Capital and the region, transforming the area into their backyard.

• The marginalization of the District is also one of the main reasons that allowed the consideration of its coastal zone as the backyard of the capital.

• The trend of implementing of regional infrastructure services by the central administration without serious environmental and economic impact studies or mitigation measures.

• The uncertain economic situation of the country and the frequent market fluctuations threaten the Small and Medium Enterprises that constitute the backbone of the District's economic activity, in case they are not strengthened and their competitiveness improved.

• In case no actions are taken to remedy the degradation of the residential functions and the further pauperization of the remaining population, the area will soon be transformed into a degraded suburb for transient residents of foreign daily workers.

• The latent value of land in the District because of its proximity to the Capital Center, and the impoverishment of the local population have triggered recently a speculative land market without any development projects.

BIBLIOGRAPHY

- A survey of living conditions and social needs of Armenians in Lebanon - 2002. Jinishian Memorial Program (JMP) Lebanon, published 2004 Beirut

- Area assessment Report Bourj-Hammoud & Sin-El-Fil, local Situational Analysis, Issues and Possible Interventions, world Vision International-Lebanon, July 2006

- Espaces Publics de Bourj-Hammoud, Université Libanaise, Institut National des Beaux Arts, Section d'Urbanisme, 2003-2004

- Statistical Data concerning buildings and institutions in Bourj-Hammoud, 1966 and 2004, General Directorate of Statistics

- Statistical Data, 1997, Ministry of Social Affairs (MOSA)

اليوبيل الذهبي، بلدية برج حمود، 1952-2002 -

بلدية برج حمود، وعود تحققت 2004 -

- Index of 2009 Bourj-Hammoud 4th edition

التحركات السكانية وأثرها على التربية من خلال دراسة حالة منطقتي برج البراجنة وبرج حمود، ـ مجلة حنون،العدد السابع عشر 1982-1984 ، يوسف صادر.



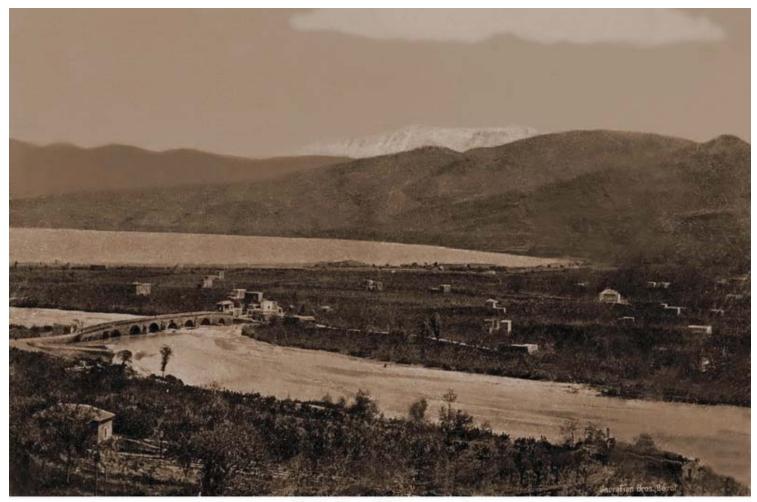
GENERAL VIEW FROM NORTH -EAST TO SOUTH-WEST



GENERAL VIEW OF VIADUCT FROM WEST TO EAST



GENERAL VIEW FROM SOUTH TO NORTH



1910, Bourj Hammoud.