

CHAPTER 2

SOCIOECONOMIC FRAMEWORK

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2.1 PRESENT CONDITIONS

2.1.1 Administrative Division and Profile

The Study Area as shown in Figure 2.1-1, is located on the Mediterranean Sea region at a latitude of 24 ° 28' North and a longitude 24 ° 50' East in Tripoli Cada, Zgharta Cada and Koura Cada in the Mohafaza of North Lebanon, which is one of the six Mohafazas of Lebanon. The administration divisions included in the Study Area are as follows:

- (1) Tripoli with Downtown, Old Town, New Tripoli, Tripoli West, Tripoli North, El-Qoubbe, Dahr El-Ain and Abou Samra
- (2) El-Mina, located at the tip of a peninsula
- (3) El-Bedaoui in the north-east of Tripoli
- (4) Ras-Maska in the south-west of Tripoli
- (5) Mejdlaya in the south-east of Tripoli

2.1.2 Physical Profile

The older parts of the Municipality of Tripoli lie at the base of an escarpment, on both sides of the deeply incised gorge where Abou Ali River cuts through this escarpment. The escarpment parallels the general coastline, with a coastal plane about one to two kilometers in width at its base. Elevations range is from 10 to 50 m above sea level. Newer parts of the Municipality of Tripoli have developed towards El-Mina at an elevation between three and ten meters and climbing up the escarpment in the southeast up to an elevation of around 85 m.

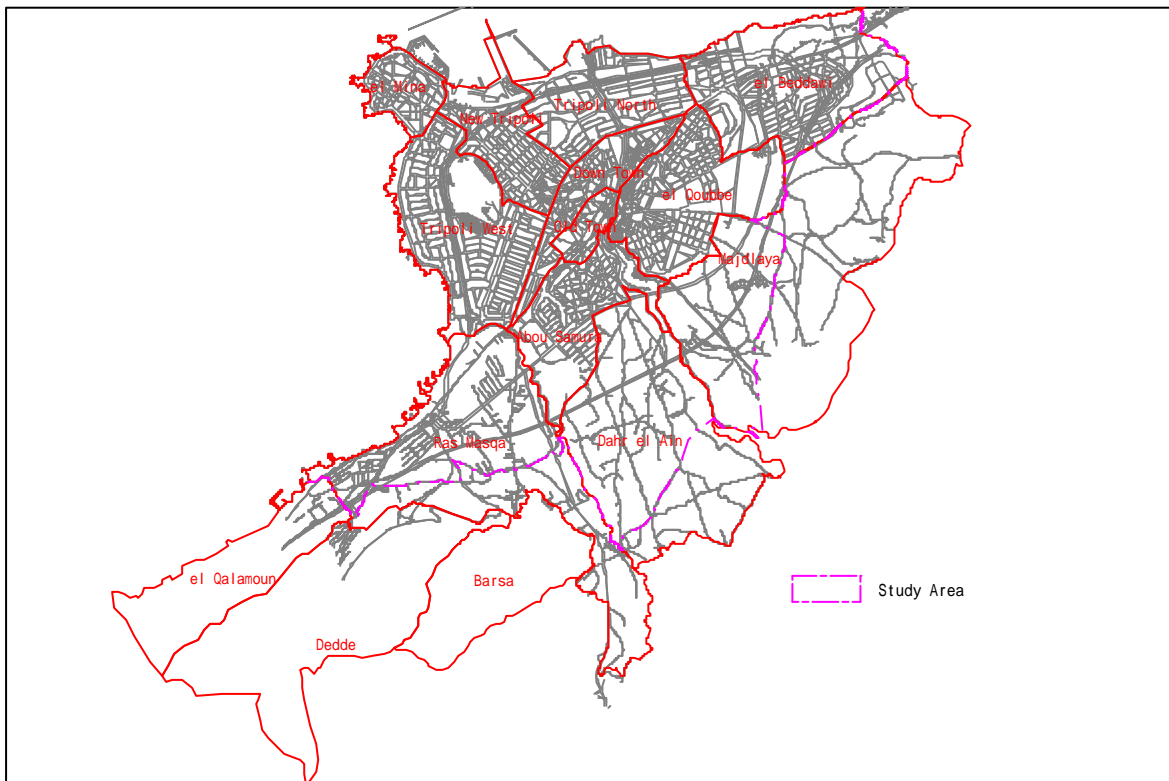


Figure 2.1-1 Location of the Study Area

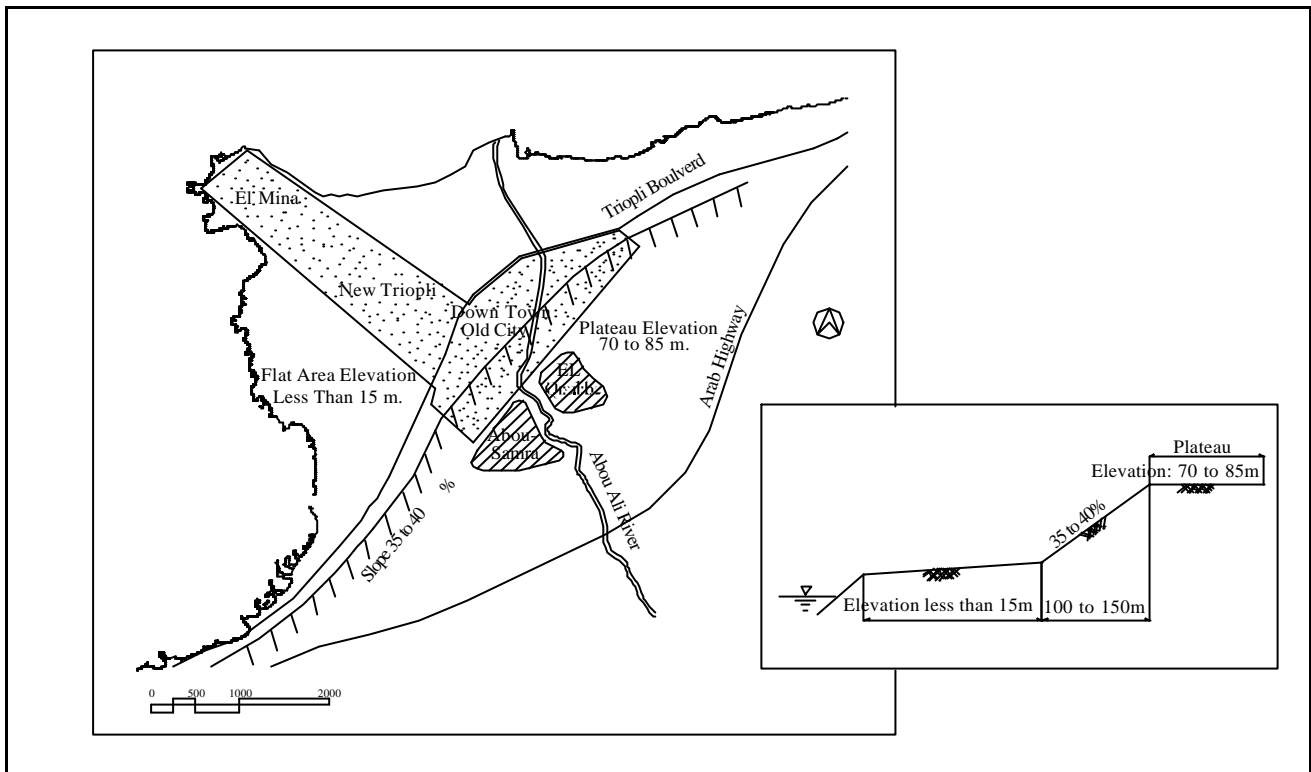


Figure 2.1-2 Urban Structure and Topography

The older parts of El-Mina occupy the rocky tips of a peninsula, which extends some three kilometers from the general coastline. Newer parts have been developed directly along the coastline and towards the Tripoli center. A general elevation of El-Mina is three to eight meters above sea level. The urban structure and topography is described in Figure 2.1-2.

2.1.3 Present Land Use

In 1971, a Master Plan was prepared and a planning code and zoning map were issued for land use in Tripoli, El-Mina and parts of El-Bedaoui. In this plan, the zoning is defined as the partitioning of a city by ordinance into areas or zoning districts reserved for different purposes, primarily residential, commercial or industrial. In addition to establishing zoning districts for the use of property, the planning code in Figure 2.1-3 provides standards for the height and mass of buildings, and could thus give a clear idea of the maximum expected number of inhabitants. The planning code as shown in Table 2.1-1 defines the actual basic floor area ratio (FAR) and the maximum plan dimension ratio (PDR) for each zoning area. The zoning outlines the location of each zoning area within the city.

The existing planning code for Tripoli from 1971 is still valid with the exception that an increase in the basic FAR has been decided for zones D2 and E1. Further calculations are based on these new figures. Another change is the fact that Area XII, originally designated as E2, is now to be considered as an industrial area. Other essential changes are not to be expected in the near future according to statements obtained from Municipality of Tripoli and from the local Chamber of Architects.

Based on the information contained in the planning code and in the zoning map, Table 2.1-2 has been obtained. Finally, the results are presented graphically as shown in Figure 2.1-4.

Table 2.1-1 Planning Code

Zoning	Land Use	FAR	PDR	Density Type
A	Historical	1.80	60%	Low density
A1	Historical	2.00	40%	Medium density
B1	Residential	4.20	60%	Highest density
B2	Residential	2.00	50%	High density
B2	Residential	2.00	50%	Low density
B2.1	Residential	1.50	50%	High density
C1	Residential	2.00	60%G.F1/40%F1	High density
C2	Residential	2.40	40%	Medium density
C2.1	Residential	1.50	50%	Low density
C2	Residential	1.60	40%	Low density
D1	Extension zone	0.90	20%	Lowest density
D2	Extension zone	0.80 (2.00)	20%	Low/Medium density
D2	Extension zone	0.20	10%	Lowest density
E1*	Tourist area	1.20 (1.80)	20%	Low/Medium density
E2*	Sea front	0.20	15%	Lowest density
F	Industry	1.80	60%	Commercial & Industry

Note:

- a) FAR = Basic Floor Area Ratio
 0.20<FAR<1.00 Lowest
 1.00<FAR<2.00 Low
 2.00<FAR<2.00 Medium
 2.00<FAR<4.00 High
 4.00 FAR Highest
- b) PDR = Maximum Plan Dimension Ratio
 * Hotels build on parcels exceeding 10000 sq. m. in surface the Maximum Plan Dimension
- c) Ratio (PDR) will be 20% and Basic Floor Area Ratio (FAR) will be 2.00. Total height of construction shall be unlimited and setback shall be minimum 15 m from all sides. Applicable to zone E1 & E2 only.



Figure 2.1-3 Planning Code Zoning

Table 2.1-2 Description of Actual Town Development in Tripoli

Area	Zone	Description
I	B2	Town center of El-Mina; 59.8 ha; densely built-up.
II	C2	Residential area in western part of El-Mina at the coast; 24.2ha; area not fully developed; planed coverage 50%.
III	E1	Recreation zone along the Mediterranean Sea shore in flat coastal zone; 28.2 ha.
IV	C2	Residential area between El-Mina and Exposition Center; 20.6 ha; not fully developed; intended coverage 40%; area cover by final design for development of infrastructure for residential area, including drainage facilities carried out in 1994.
V	C1	Residential area; 15.2 ha; area fully developed (densely built-up)
VI	F	Industrial zone east of El-Mina; 72.9 ha; area not fully developed apart from port area.
VIII	D2	Extension area south of Exposition Center, 55,7 ha; area not yet developed, but final design for development of infrastructure for residential area, including drainage facilities has been carried out in 1994 and construction of infrastructure has commenced.
IX	-	Exposition Center of Tripoli; 82.2 ha; estimated coverage 50%; further development still possible.
X	C1	Residential area north- east of exposition center between town centers of Tripoli and El-Mina; 8.99ha; big portions commercially used; at least 60% coverage.
XI	D2	Extension area; 110.6ha; up to now not developed, still used as agricultural zone; planned coverage 20%.
XII	E2	Recreation area on shore of Mediterranean Sea; 24.0 ha; not developed yet.
XIII	F	Industrial zone at the shore of the Mediterranean Sea; 60.2 ha; zone not yet developed.
XIV	C2	Small residential zone at the entrance to El-Bedaoui from north-east; 12.9ha; area fully developed; coverage 40%.
XV	F	Existing industrial zone on left bank of Nahr Haab on either side of the highway Beirut-Tripoli; 26.2ha.
XVI	C1	Residential area on both sides of entrance road from Beirut to Tripoli; 108.9 ha; not yet fully developed; planned coverage by buildings 60% partly included (79.0 ha) in the final design of infrastructure as described under Area VIII.
XVII	D1	Extension area east of Exposition Center in coastal plain; 21.0 ha; area not yet developed, but final design for development of infrastructure for residential area, including drainage facilities.
XVIII	B1	Commercial center of Tripoli; 90.1 ha; area fully developed; coverage at least 60%.
XIX & XXIX	C2	Residential area north-east of commercial zone of Tripoli; bordering Abou Ali River; 24.7 ha; area partly developed coverage 50%
XX	D1	Extension area; 19.7; up to now not developed, still used as agricultural zone; planned coverage 20%.
XXI	D1	Extension area; 22.6 ha; flat; up to now not developed, still used as agricultural zone; planned coverage 20%.
XXII	C2	Not developed residential area on slope of coastal mountains; 74.5 ha; coverage of surface by buildings after final development 40%.
XXIII	B2	Existing part of the town south of Abou Ali River on top of mountains; 66.2 ha as residential area moderately built-up.
XXIV & XXX	A & A1	Old town center of Tripoli on top of the mountain; 45.9 ha; very densely built up.
XXV & XXXI	B2	District Qoubbe on right bank of Abou Ali River opposite of old town centre; 101.2 ha; very densely built up.
XXVI	C2	Residential area forming the eastern suburb of Qoubbe and El-Bedaoui; 282.5 ha; area is not fully developed apart from its most north-eastern end (camp area); planned to be built-up at 40%.
XXVII	C2	Residential/commercial zone on either side of the main road from El-Bedaoui to Tripoli; 80.8 ha; area is partly developed; prescribed maximum coverage 50%.
XXXII	-	Planned public park on both banks of Abou Ali River 7.0 ha; not developed yet.

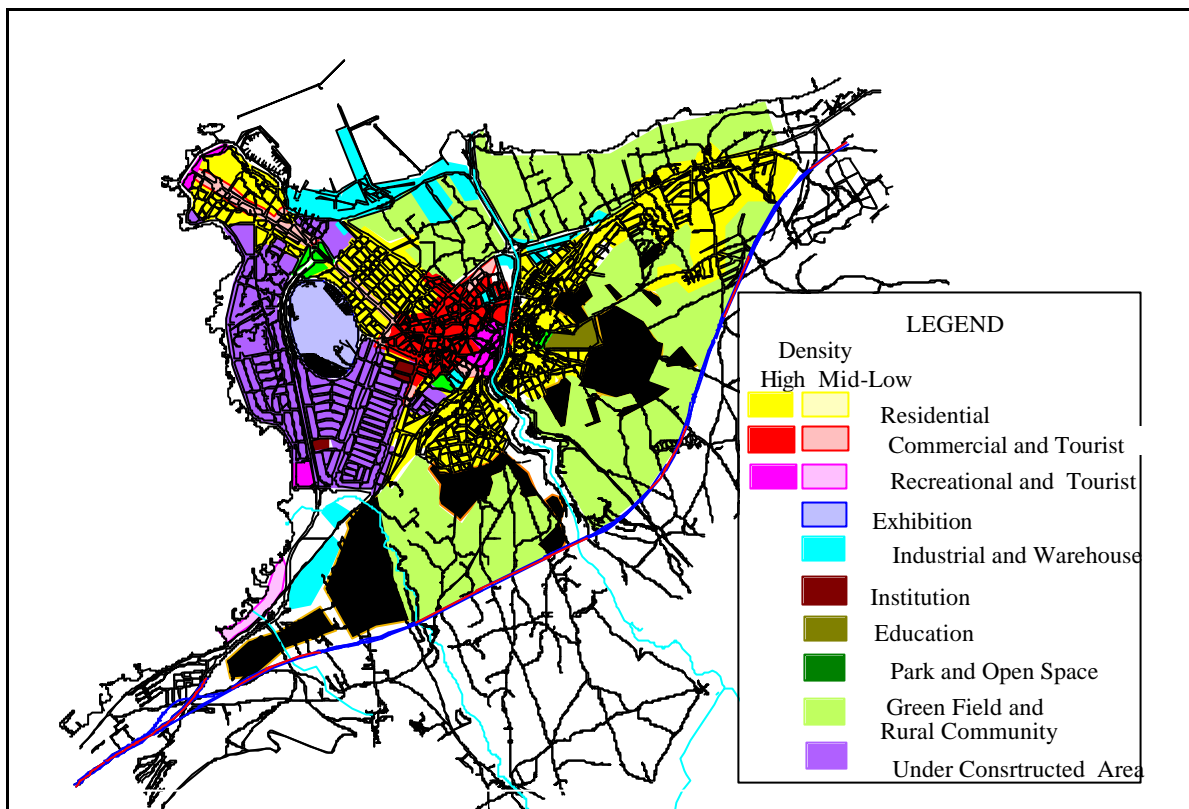


Figure 2.1-4 Present Land Use

2.1.4 Economic Activities

Economically, Tripoli depends mainly on the industrial, commercial, tourism and service sectors as the agricultural sector is deteriorating due to the rapid urbanization and developing of surrounding orange and olive lands into new residential areas.

Industry: During the 1960's and early 70's, industry played an important role in the economy of the city. Again, and after the stability following to the end of civil war new industries were developed in different areas in Tripoli. North Industrial Zone is extended from El-Bedaoui to EL-Tabbana and includes factories for gas filling for housing-use, Oxygen, glass, furniture, fruits preservation and petrol-refinery, which are not operated at present. Al Tabbana and El-Madina have mainly food industries such as sugar, oriental sweets, cookies, cheese, soap as well as some clothes manufacturers.

El-Mina accommodates some industries near the port including the manufacturing of small wooden boats (Felucca), furniture, building materials and clay products. El-Behsass is located south of Tripoli and accommodates some closed activities such as the steel mill, sugar factory, wood factory, and other operated factories for soft drinks, soap, vegetable oil, flower mill and asphalt patching plant. El-Qoubbe and Abou Samura have some oil factories, fruit preservation factories and refrigerators as well as sesame mills.

Commerce: Tripoli has a large role as a main commercial center in Lebanon not only for the city residents and surrounding areas but also for some areas in Syria near the borders. Imports to Tripoli come through its international port or from Beirut. Many modern shopping centers for luxurious products exist at present in many exclusive streets, such as Azmi street, El-Mina street and El-Meatain street. In addition, the weekly Friday market is a famous attraction center for residents. There are also supermarkets and department stores in the resort of El-Behsass.

Tripoli International Exhibition, designed by Oscar Niemeyer the designer of Brasilia city, greatly promotes tourism, commercial and industrial sectors. It is located northwest of Tripoli beside

Beirut-Tripoli expressway with an area of about one million square meter. It contains 16 buildings with different and distinguish design. In addition, it accommodates theaters, amusement land, playing-grounds, space-museum, hotel, reception halls, coffee shops and restaurants. It has a heli-port, mini-railway local line and parking space for about 2,000 vehicles.

Tourism: Tripoli is a tourism attraction center due to its historical places of various eras, natural beauty, sea beaches and mountainous areas, good communication and banking systems, road network well-connected to other cities as well as the moderate weather. Resorts, restaurants and hotels are widely scattered in the city center and El-Behsass resort area at the south of Tripoli.

2.1.5 Social And Economic Conditions

Education: The level of illiteracy in Tripoli is comparable to other cities in Lebanon. As far as women are concerned, several studies have been conducted. A national survey in 1990 revealed that the literacy level of females increased during the years of war and that 85% of all women aged 15-49 age group are literate. Comparative studies in the different regions of the country, however, have indicate important regional variations in female literacy rates, and the illiteracy rate in the North Lebanon was found to be 24.4% in 1990 (Situation analysis of Lebanon Children and Woman, 1991). More than a quarter of the adults aged 15 years and above has, however, not completed their primary education.

Family: According to survey carried out in 1994, the average number of permanent household members is 6.25, living most of the time with the family unit. In terms of family composition, the majority of families are nuclear, consisting of a married couple with children, and the average number of children per household is 2.27 as revealed in a recent survey. The ratio of males to females is approximately 1:1. The proportion of children in the population, who are less than 15 years of age is 28.2%, and 24% of the population are in the school age.

Health: One of the most important environmental related threats to people is that posed by water-borne diseases arising from faulty wastewater management and contaminated drinking water sources. During the years of civil conflict, the situation of water in Lebanon has deteriorated, both in terms of quantity and quality. The water quantity received by most Lebanese is below the standard average of drinking water needed for an individual and decreased almost 60 percent below the average of 1975. A Lebanese gets an average of 67 litres/day during the dry season and 88 litres/day during the wet season.

Income: A survey conducted by a consultant company in 1995 covering a total of 705 households in Tripoli city (out of which 161 only gave an estimate of their monthly income) revealed that the average income of the household was around 612,000 L.L. per month and 42% had incomes between 250,000 and 500,000 L.L. 98% of the households was subscribers to the public electricity network and the average monthly cost for electricity was 47,450 L.L. 90% of the households were subscribers to the public water supply system and the average monthly consumption for water supplied from public sources per household was 11.45 m³.

2.1.6 Demography

Population: In the absence of a national census in Lebanon since 1922, several attempts have been made in the last few years to estimate the population of Tripoli by different sources. Yet, the population figures reached by these sources were often quite different. The population estimation result in some studies in recent years is as follows.

- Economic Feasibility of the Coastal Motorway
Tripoli city 222,000-247,000
- Estimation by Ministry of Social Affair and UNPF's
Tripoli city 220,000
- Feasibility Study for Tripoli Sewerage

Tripoli Centre	190,000
Abou Samra	90,000
El-Qoubbe	90,000
El-Mina	100,000
<u>El-Bedaoui</u>	<u>20,000</u>
Total	500,000

Estimation of the existing population based on the comparison and examination of two kinds of methods are:

•Method I (Breakdown from the statistics data of North Lebanon)

North Lebanon Population × Ratio of Residential Unit (Tripoli/North Lebanon)

Population by the Central Statistics Administration

Lebanon 4,005,025

North Lebanon 807,204

Ratio of Residential Unit by Statistics Book of North Lebanon

Residential Unit in North Lebanon 257,514

Residential Unit in Tripoli Cada 82,606

Residential Unit in Tripoli and El-Mina 81,084

Population

Population in Tripoli Cada 258,927

Population in Tripoli and El-Mina 254,166

•Method II

Using the Number of Housing Units (counting from aerial photograph and other studies), Household Size and Occupancy Rate

Population = Number of Housing Units × Household Size × Occupancy Rate

The results are presented in Table 2.1-3.

Table 2.1-3 Estimated Population

Zone	Population (1996)	Study Area Population
El-Mina	27,000	27,000
New Tripoli	24,800	24,800
Downtown	56,500	56,500
Old Town	24,500	24,500
Abou Samra	24,200	24,200
El-Qoubbe	45,400	45,400
El-Bedaoui	15,600	15,600
Tripoli West	2,200	2,200
Tripoli North	2,200	2,200
Dahr El-Ain	2,500	2,000
Sub total	255,100	254,600
Mejdaya	10,600	4,500
Ras-Maska	8,900	4,800
Barsa	4,500	-
Dedde	2,200	-
El-Qalamoun	4,700	-
Sub total	21,900	9,200
Total	287,000	262,900
Palestine	20,000	20,000

The Results of Method I and II are almost same therefore; the study uses the result of Method II.

The Study Area had a population of 282,900 in 1996 including Palestinian camp. Population density of the Study Area was 87.2 person/ha.

Labor Force: There are about 67,500 employees in the Study Area by the Central Administration of Statistics (CAS) - 1996. The spatial distribution of employees is shown in Table 2.1-4.

Students: The number of school students in the Study Area in 2000 is counted as 70,122 as shown in Table 2.1-5. The number of university students in the Study Area in 2000 is counted as 11,000 persons as shown in Table 2.1-6.

Table 2.1-4 Labor Force in the Study Area

Study Area	Employees 1996
El-Mina	6,182
Tripoli West	2,258
New Tripoli	11,552
Tripoli North	2,029
Downtown	19,476
Old Town	7,284
Abou Samra	2,891
El-Qoubbe	8,504
El-Bedaoui	4,244
Dahr El-Ain	241
Ras-Maska	1,285
Mejdlaya	216
	67,472

Table 2.1-5 Number of School Students, 2000

Area Code	Area	No. of School Students					Teachers	S/T
		Pre-school	Elementary	Primary	Secondary	Total		
1	El-Mina	1,957	5,240	2,005	1,282	11,484	770	14.9
2	Tripoli West	21	18	210	114	462	21	14.9
2	New Tripoli	1,622	2,019	1,848	1,560	8,049	514	15.7
4	Tripoli North							
5	Downtown	2,068	7,652	4,646	1,261	15,727	1,062	14.8
6	Old Town	828	1,578	271	282	2,969	155	19.2
7	Abou Samra	2,680	7,740	4,187	1,086	15,692	1,000	15.7
8	El-Qoubbe	2,247	7,412	2,188	518	12,466	762	17.6
9	El-Bedaoui	199	217	101	11	628	28	22.4
10	Dahr El-Ain							
11	Ras-Maska	47	78	124	95	244	45	7.6
12	El-Qalamoun	197	405	429	268	1,299	150	8.7
12	Dedde							
14	Barsa							
15	Mejdlaya							
	Total	11,976	22,460	18,109	6,577	70,122	4,518	15.5

Table 2.1-6 Number of University Students, 2000

Area	University Students
El-Qoubbe	9,000
Ras-Maska	1,000
Dedde	1,000
Total	11,000

2.2 FUTURE SOCIOECONOMIC FRAMEWORK

2.2.1 Urban Development Policy

1) Present Problems

The present problems are summarized as follows:

- Too much concentration of people, facilities and socioeconomic activities in the limited narrow areas of Old Town, Downtown and El-Mina.
- Deterioration of urban environment due to above.
- Lack of infrastructure support for development of the planned development areas except Tripoli West where infrastructure was completed and due for development.

2) Urban Development Policy

Urban development policies were discussed with concerned Mayors and CDR. The following policies were established:

- Improvement of environment of densely populated areas.
- Planned functional guidance in the new development area. (development of self-sustainable new communities)
- Preservation of historic heritage.
- Well-balanced and spatial arrangement of urban functions. (rearrangement of urban functions)

3) Urban Development Scenario

In due consideration of existing problems and urban development policies, three urban development scenarios were developed and compared:

- Scenario – 1: Concentrated Urban Development
- Scenario – 2: Enlarged Urban Development
- Scenario – 3: Spatial Urban Development

Comparisons of three scenarios are presented in Table 2.2-1. Mayors of concerned municipalities agreed to adopt Scenario-3 as it exactly meets with their plans and visions.

Table 2.2-1 Urban Development Scenarios

Scenario	Development Direction	Expected Problems/Actions to be taken
<u>Scenario - 1:</u> Concentrated Urban Development	- Develop further the existing urban area until its saturation - Follow natural development trend at the planned development areas	- The existing urban area has already been developed with high density and urban functions deteriorating - This scenario will further aggravate present situation.
<u>Scenario - 2:</u> Enlarged Urban Development	- No active development at existing urban area - Guided development towards the fringe areas of the existing urban area	- The existing urban area's function will not be improved. - The existing deteriorated urban conditions will be expanded to its fringe area.
<u>Scenario - 3:</u> Spatial Urban Development	- Controlled development of the existing urban area - Active development of the planned development areas	- Strict development control at the existing urban area is required and only improvement of the urban amenity, preservation of old heritage and facility improvement of tourist attractions are allowed. - Some of the urban functions of the existing urban area to be transferred to the planned development area. - The planned development areas shall be so developed that the self-sustainable communities are to be built.

2.2.2 Future Population Frame

In the absence of a national census in Lebanon since 1932, sufficient data for estimation is not obtained. In this situation, the future frame is set up by the various assumptions.

(1) Future Population Frame

There is no future population estimate made by the Government of Lebanon, international institutions or other agencies. Under such situation, population of the Study Area by the year of 2020 was estimated by applying the annual average population growth rate which was adopted by the Feasibility Study of Coastal Motorway undertaken by CDR. As for the reference, the Beirut Urban Transport Study (1996) estimated the annual population growth rate for Beirut Metropolitan Area to be 4.8% from 1994 to 2005 (recovery period) and 2.0% from 2006 to 2015.

Socioeconomic activity in Greater Tripoli is less active than in Beirut Metropolitan Area, therefore, population increase rate of Greater Tripoli will be moderate compared with Beirut Metropolitan Area. Population growth rate per annum adopted is shown in Table 2.2-2.

Table 2.2-3 presents the estimated population of Greater Tripoli up to the year 2020 based on the population in 1996 estimated by Method II. By the year 2020 the Greater Tripoli population is estimated to become 454,200 inhabitants.

(2) Distribution of Population

The distribution of the population was calculated based on the future land use and shown in Table 2.2-4 and Figures 2.2-1a to 2.2-1d.

Table 2.2-2 Population Growth Rate Per Annum

	1995-99	2000-04	2005-09	2010-14
Tripoli City(%)	2	1.8	1.7	1.6
Tripoli Qada(%)	2.2	2	1.8	1.6

Table 2.2-3 Future Population

	2000	2005	2010	2015	2020
Greater Tripoli	330,900	360,300	390,400	421,000	454,200

(Greater Tripoli: Tripoli, El-Mina, El-Bedaoui, Mejdlaya, Ras-Maska, Barsa, Dedde, El-Qalamoun)

(3) Employment

The land use in Tripoli is mainly formed by the mixed land use of residential and other functions and correlation of employee and population is very high. The ratio of employee per population in the existing commercial area is from 40% to 80%. The ratio of employee per population in the existing residential area is about 20%. The ratio of employee per population in rural area is less than 15%.

Future working population was decided using the ratio of employee per population, which is determined by the future land use characters.

The existing center of commerce and business is Downtown and New Tripoli. However the future center of commerce and business will expand to Tripoli West. Table 2.2-5 shows the current and future employment distributions for the different zones.

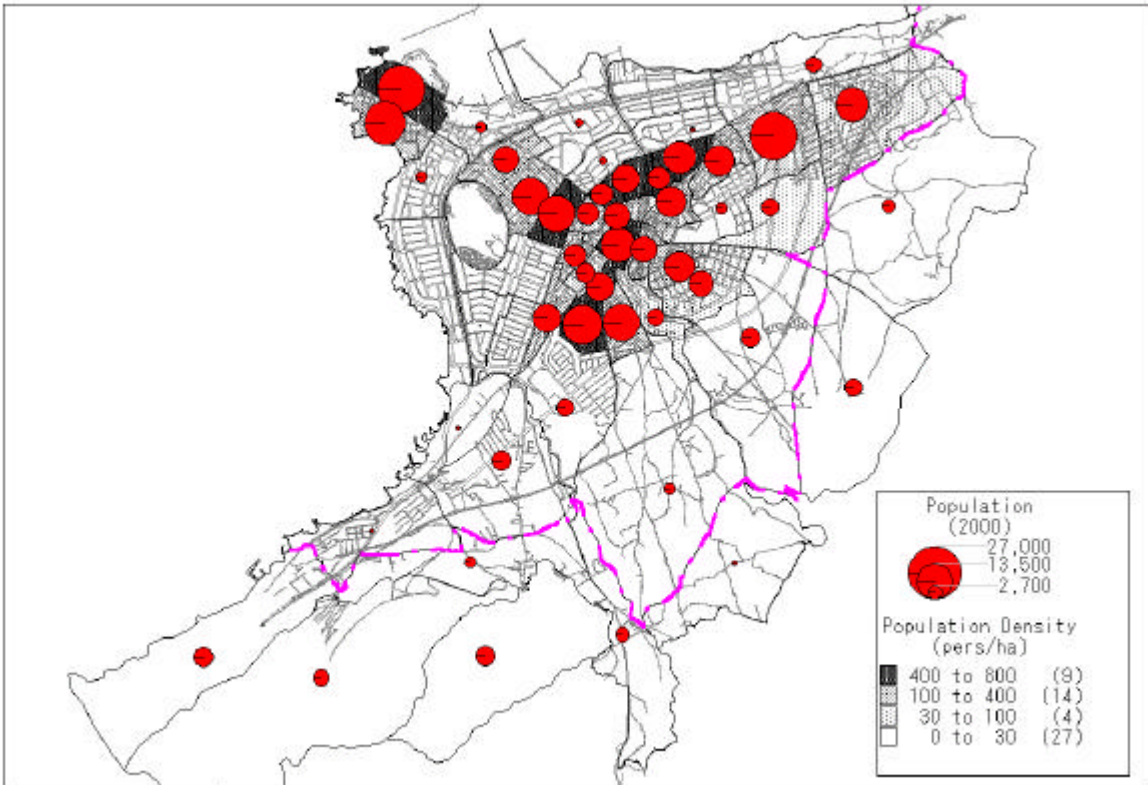


Figure 2.2-1a Population and Population Density

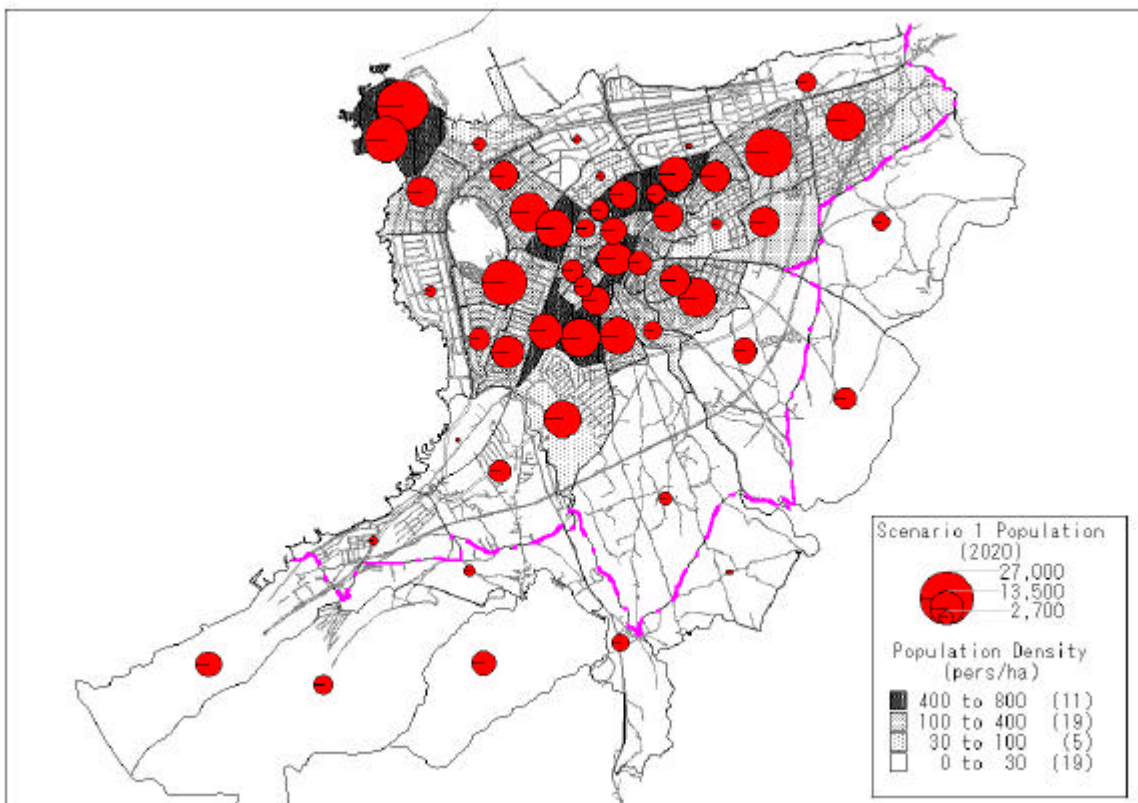


Figure 2.2-1b Population and Population Density

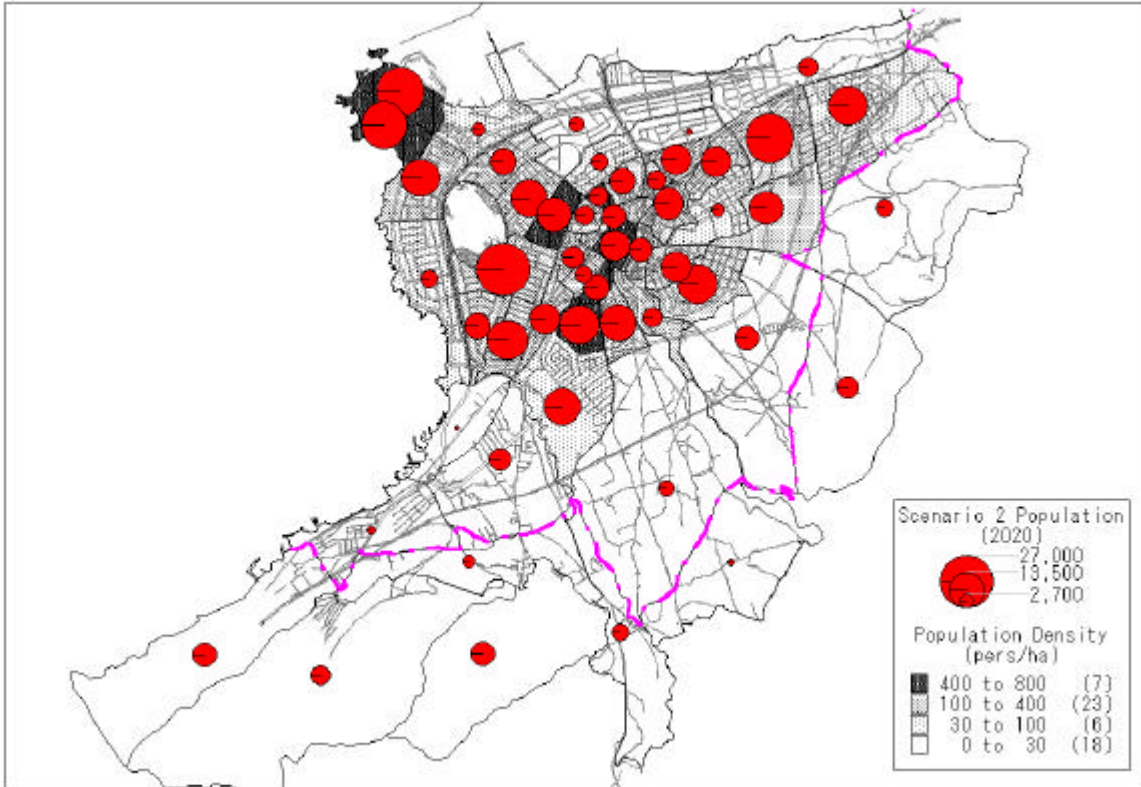


Figure 2.2-1c Population and Population Density

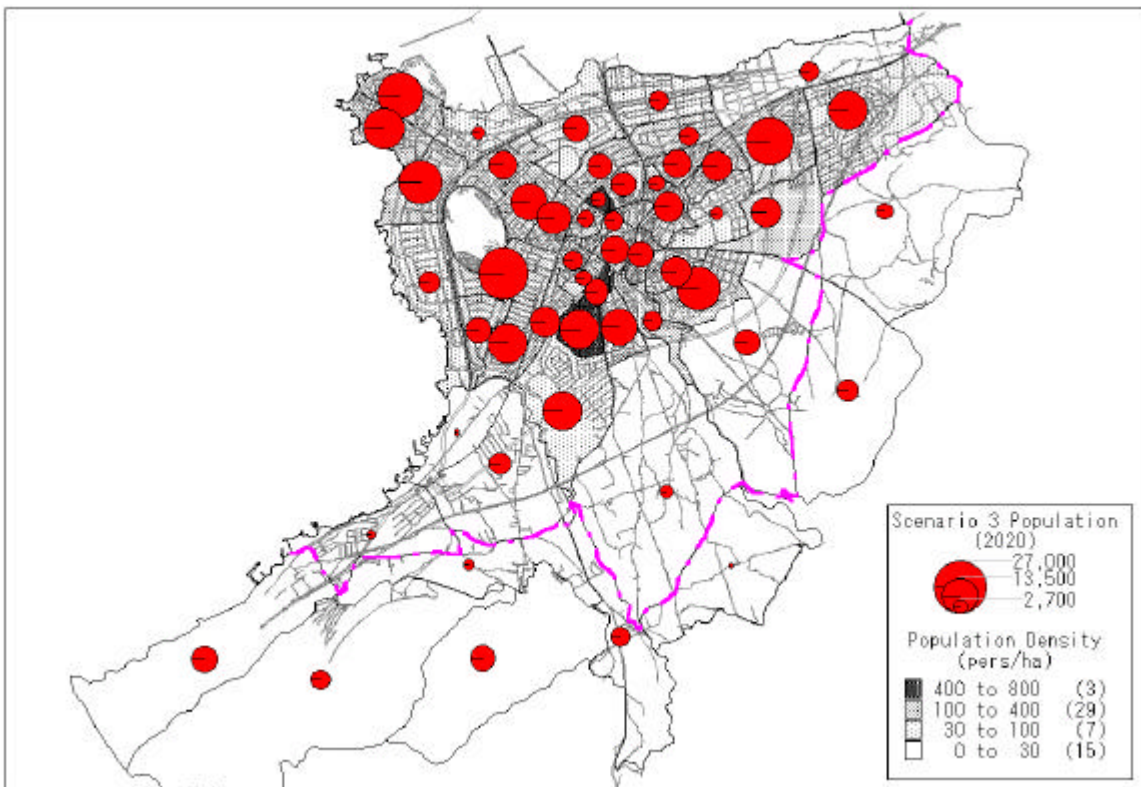


Figure 2.2-1d Population and Population Density

Table 2.2-4 Spatial Distribution of Population by Scenario III

Area	2000	2005	2010	2015	2020
El-Mina	40,107	39,296	34,486	37,675	36,865
Tripoli West	2,541	24,127	46,185	52,747	71,151
New Tripoli	37,664	37,290	36,921	36,556	36,206
Tripoli North	2,448	2,677	2,912	18,999	24,610
Downtown	61,106	58,097	55,089	52,080	49,072
Old Town	26,483	24,756	23,028	21,301	19,573
Abou Samra	37,055	40,512	44,075	47,715	51,657
El-Qoubbe	49,132	53,716	58,440	63,267	68,493
El-Bedaoui	36,886	38,451	40,085	41,744	43,540
Dahr El-Ain	2,706	2,959	3,219	3,485	3,772
Ras-Maska	9,709	10,720	11,720	12,688	13,736
El-Qalamoun	5,127	5,661	6,189	6,701	7,254
Dedde	3,491	3,854	4,214	4,562	4,939
Barsa	4,909	5,420	5,926	6,415	6,945
Mejdlaya	11,564	12,768	13,959	15,112	16,360
	330,930	360,304	390,447	421,047	454,174

Table 2.2-5 Working Population

	Working Population				
	2000	2005	2010	2015	2020
El-Mina	7,248	8,174	9,271	10,511	11,912
Tripoli West	8,310	15,277	22,668	30,958	40,742
New Tripoli	13,487	14,690	16,411	18,378	20,617
Tripoli North	3,238	4,573	5,998	7,533	9,214
Downtown	24,156	28,685	33,804	39,471	45,790
Old Town	8,317	9,138	10,153	11,318	12,649
Abou Samra	5,143	6,434	7,854	9,408	11,127
El-Qoubbe	9,888	11,063	12,471	14,069	15,879
El-Bedaoui	5,411	6,450	7,621	8,916	10,360
Dahr El-Ain	492	546	612	687	772
Ras-Maska	9,709	10,720	11,720	12,688	13,736
El-Qalamoun	5,127	5,661	6,189	6,701	7,254
Dedde	3,491	3,854	4,214	4,562	4,939
Barsa	4,909	5,420	5,926	6,415	6,945
Mejdlaya	11,564	12,768	13,959	15,112	16,360
Total	120,491	143,454	168,870	196,727	228,297

(4) Students

The total number of students who live in Greater Tripoli was determined by using the age structure of the population. Tripoli is a regional center so there are many students from outside of Greater Tripoli. The ratio of the students come from outside is calculated by using the number of school-based students and students who live in Greater Tripoli. The number of the future school based students in 2020 will be 111,000.

The distribution of the school-based students was determined by allocation of the new schools. It was assumed that the new schools would be located in an area where population increased and was previously inconvenient area for attending school. The result of the student distribution is shown in Table 2.2-6.

Table 2.2-6 School-Based Students

Area	School-Based Students				
	2000	2005	2010	2015	2020
El-Mina	11,484	11,514	11,543	11,573	11,603
Tripoli West	463	3,703	6,943	10,183	13,423
New Tripoli	8,049	8,404	8,760	9,115	9,470
Tripoli North	0	0	0	1,123	1,498
Downtown	15,727	15,370	15,012	13,532	12,800
Old Town	3,220	2,992	2,763	2,535	2,307
Abou Samra	15,693	16,102	16,511	16,920	17,329
El-Qoubbe	22,215	25,280	28,346	31,411	34,477
El-Bedaoui	628	633	639	644	649
Dahr El-Ain	0	0	0	0	0
Ras-Maska	1,344	2,163	2,982	3,802	4,621
El-Qalamoun	1,299	1,434	1,568	1,703	1,838
Dedde	1,000	1,094	1,189	1,283	1,378
Barsa	0	0	0	0	0
Mejdlaya	0	0	0	0	0
Total	81,122	88,689	96,257	103,824	111,391

The present and future population distribution by zone is presented in Table 2.2-7 with the number of employees and students on both home-base and office/school-base.

Table 2.2-7 Social Indicators by Zones

Zone	Population		Employment (Office Base)		Employment (Office Base)		Students (Home Base)		Students (School Base)	
	2000	2020	2000	2020	2000	2020	2000	2020	2000	2020
1	22,272	19,290	6,171	7,916	4,254	5,787	4,927	4,268	8,264	8,429
2	17,834	17,575	4,942	7,212	2,843	5,272	3,946	3,888	3,220	3,173
3	2,162	17,667	599	7,250	1,636	5,300	478	3,909	0	4,561
4	1,866	2,601	517	1,067	2,244	4,500	413	575	0	0
5	0	6,510	0	2,672	685	1,953	0	1,440	0	0
6	108	7,400	30	3,037	751	4,440	24	1,637	0	0
7	54	15,476	15	6,351	1,572	9,286	12	3,424	0	4,316
8	0	0	0	0	2,029	15,200	0	0	0	0
9	216	24,098	60	9,889	3,256	14,459	48	5,331	463	4,546
10	6,603	8,133	1,830	3,338	1,463	3,253	1,461	1,799	5,487	6,899
11	14,582	13,472	4,040	5,528	4,116	5,389	3,226	2,980	1,025	1,309
12	974	7,541	270	3,094	1,121	3,016	216	1,668	0	0
13	974	7,940	270	3,258	623	2,382	216	1,757	0	1,498
14	14,613	12,000	4,049	4,924	5,382	6,000	3,233	2,655	1,537	1,262
15	9,201	10,929	2,549	4,485	2,032	4,371	2,036	2,418	0	0
16	16,236	16,667	4,499	6,839	1,858	3,333	3,592	3,687	4,456	3,569
17	3,391	15,141	940	6,214	908	3,028	750	3,350	0	4,120
18	13,530	14,706	3,749	6,035	1,642	2,941	2,993	3,253	11,237	9,640
19	3,897	5,143	1,080	2,110	628	1,029	862	1,138	0	0
20	6,709	16,871	1,859	6,923	1,324	3,374	1,484	3,732	1,005	2,527
21	10,172	10,442	2,819	4,285	2,936	3,133	2,250	2,310	7,645	8,522
22	10,283	10,556	2,849	4,332	1,710	2,111	2,275	2,335	890	1,991
23	1,624	2,263	450	929	220	453	359	501	6,220	14,895
24	9,930	10,193	2,751	4,183	1,537	2,039	2,197	2,255	1,307	1,342
25	6,495	5,053	1,800	2,073	3,307	5,053	1,437	1,118	1,402	1,063
26	5,371	3,473	1,488	1,425	2,947	3,473	1,188	768	3,098	2,296
27	5,495	4,061	1,522	1,666	2,090	4,061	1,216	898	4,877	3,812
28	9,283	7,623	2,572	3,128	2,934	7,623	2,054	1,687	2,170	1,748
29	5,371	3,970	1,488	1,629	3,340	3,970	1,188	878	584	439
30	11,907	8,800	3,299	3,611	3,868	8,800	2,634	1,947	2,259	2,577
31	0	4,178	0	1,715	724	1,671	0	924	0	0
32	500	4,952	139	2,032	703	1,485	111	1,095	0	0
33	7,984	5,163	2,212	2,119	3,133	5,163	1,766	1,142	1,337	865
34	12,371	9,143	3,428	3,752	4,667	5,486	2,737	2,023	451	339
35	4,871	3,600	1,350	1,477	1,789	2,160	1,078	796	2,518	1,718
36	9,242	6,830	2,561	2,803	1,887	4,098	2,045	1,511	251	250
37	6,789	6,968	1,881	2,860	1,193	1,394	1,502	1,542	2,647	2,176
38	2,165	3,018	600	1,238	390	604	479	668	0	0
39	4,200	5,942	1,164	2,438	630	891	929	1,315	0	2,756
40	327	463	91	190	833	150	72	102	0	0
41	709	1,003	196	412	106	1,042	157	222	344	487
42	4,909	6,945	1,360	2,850	736	2,240	1,086	1,537	0	0
43	3,626	11,200	1,005	4,596	761	4,629	802	2,478	2,501	3,023
44	22,381	23,143	6,201	9,497	2,663	1,821	4,952	5,120	628	649
45	3,139	4,553	870	1,868	1,512	3,169	694	1,007	0	0
46	11,366	15,844	3,149	6,502	1,124	1,088	2,514	3,505	0	0
47	5,127	7,254	1,421	2,977	769	741	1,134	1,605	1,299	1,838
48	3,491	4,939	967	2,027	524	313	772	1,093	1,000	1,378
49	1,473	2,084	408	855	221	1,042	326	461	1,000	1,378
50	4,909	6,945	1,360	2,850	736	637	1,086	1,537	0	0
51	3,000	4,244	831	1,742	450	113	664	939	0	0
52	541	754	150	310	91	868	120	167	0	0
53	4,091	5,788	1,134	2,375	614	544	905	1,280	0	0
54	2,564	3,627	709	1,488	385	567	802	802	0	0
Total	330,930	454,174	91,694	186,376	91,694	186,377	73,214	100,480	81,122	111,391

2.2.3 Economic Parameters

The GDP of Lebanon was 25,067 Billion LL and GDP per capita of Lebanon was estimated at 6.27 Million LL per person.

Current GDP growth rate is very low, because of some economic problems and international situations. The GDP growth rate will increase to about 7%, which was achieved in the mid-90's, would solve the problems. It is assumed that GDP of Tripoli is 10% of Lebanon's GDP, which is decided by the population ratio of Tripoli and Lebanon. Table 2.2-8 shows the economic parameters of Lebanon.

Table 2.2-8 Economic Parameters of Lebanon

	1995	1996	1997	1998	1999	2020
GDP (at market prices; Billion LL)	18,027	20,417	23,034	25,337	25,067	103,791
Nominal GDP (at market prices; Billion US\$)	11.1	13	15	16.7	16.6	68.7
Real GDP growth per year (%)	6.5	4	4	2	-1	7

Future economic parameters are estimated on the basis of the national economic target and past trend of economic parameters, as presented in Table 2.2-9.

Table 2.2-9 Future Socioeconomic Parameters for Study Area

Parameter	2000	2005	2010	2015	2020
GDP (LL B.)	2,517	3,587	5,112	7,285	10,379
Nominal GDP	2,490	3,551	5,066	7,225	10,305
Population	330,900	360,300	390,400	421,000	454,200
GDP per Capita (LL .000)	7,525	9,856	12,976	17,162	22,688

2.3 FUTURE LAND USE PLAN

In 1971, a Master Plan was prepared and a planning code and zoning map were issued for land use in Tripoli, El-Mina and parts of El-Bedaoui. Since then the Master Plan of Tripoli has not been made. Recently, the master plan study has just started and present condition analysis has started. The main points that have to be considered in the implementation of the future land use plan are shown hereafter:

- Commerce and business function should move to Tripoli West from Downtown and Old Town. (The governmental activities should move to south side of EXPO area. This relocation of the urban function helps new development area becoming self-sustainable community)
- Lands produced by the relocation are used for an improvement of environment in Downtown and Old Town.
- Especially, Old Town should become the tourist center of the city.
- Environmental improvement projects should be also carried out in El-Mina.
- The characteristic of New Tripoli should change to a business-oriented area.
- The area along the coastline in Tripoli West should become new tourist spot in Tripoli.
- Abou Samra and El-Qoubbe should become a planned housing area corresponding to the increase of population in the future. Figure 2.3-1 shows the future land use by the target year 2020.

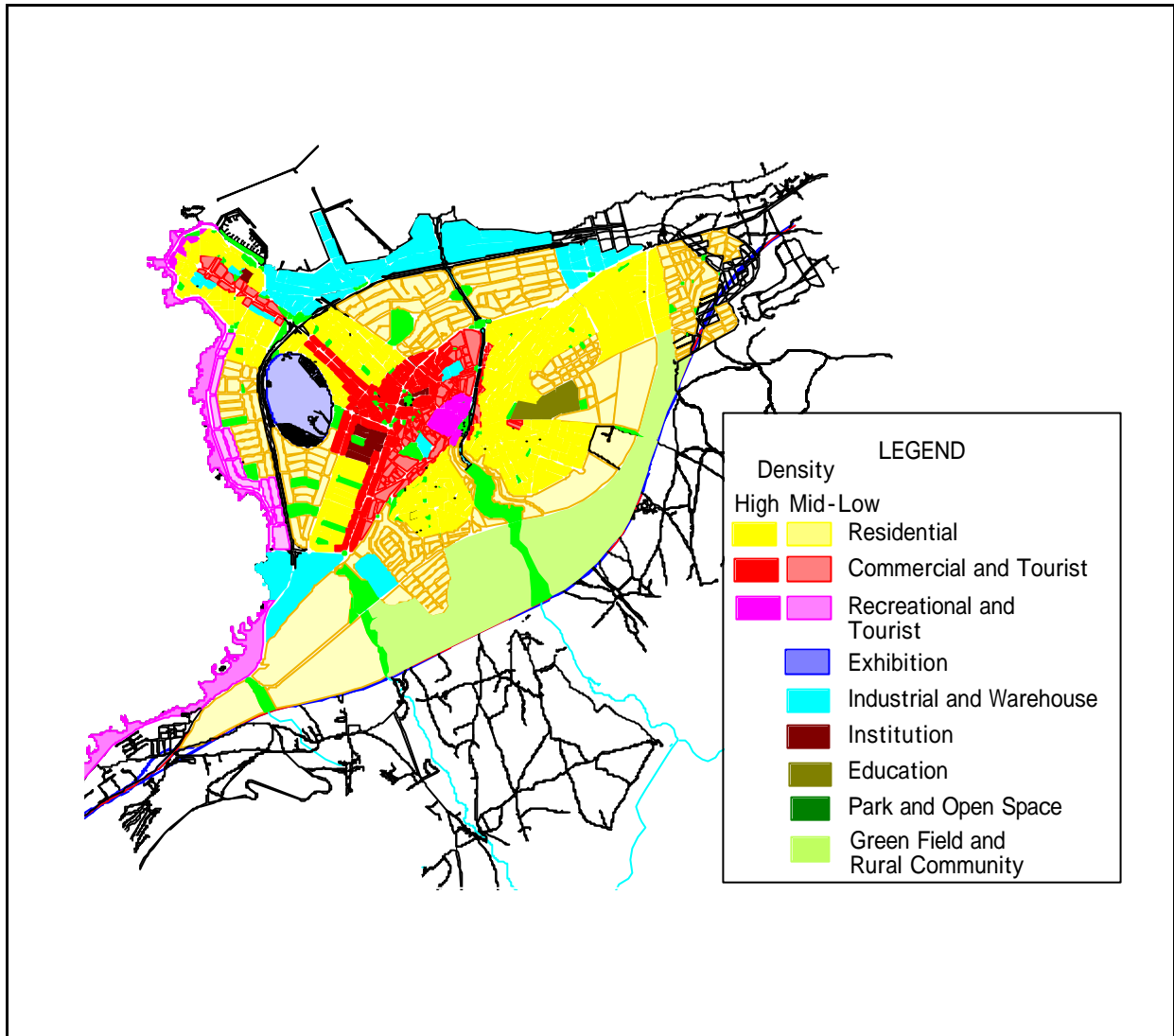


Figure 2.3-1 Future Land Use - 2020

2.4 FUNDAMENTAL POLICY OF URBAN REFORM

2.4.1 Location and Resource Characteristics

- 1) Significant Location of Tripoli City
 - International traffic focal point (focal point of commerce and distribution) with the neighboring countries
 - Leading area together with Beirut, for restoration of the country of Lebanon
 - Political and economical center city in the northern area of Lebanon
- 2) Resource Characteristics
 - Historical heritage
 - Attractive resort beach
 - Second largest port in the country
 - Well established compact town.
- 3) Issues
 - Deal with the emigrant people which reflect the speed of economic development
 - Population concentration in the center of the city

- Population settlement in the area of fundamental infrastructure improvement
- Various issues related to the increase of vehicular traffic volume and the impact on traffic and environmental conditions (traffic congestion, accident, lack of parking, noise and air pollution)

2.4.2 Basic Policy of Urban Structure Improvement

- 1) Activation of urban structure for the internationally focal city
- 2) Realization of environmental friendly city
(Construction of the city with small environment load)
- 3) Realization of safety and comfort in living style
- 4) Improvement of urban structure by strengthening the characteristics of the city
- 5) Improvement of urban structure to respond to any drastic increase in population

2.4.3 Direction of Urban Structure Improvement

The following items, in Table 2.4-1, show the course of urban life improvement in order to achieve the above-mentioned targets.

2.4.4 Philosophy of Land Use Improvement

The following is a summary for the philosophical aspects of land use improvement that takes into account the above-mentioned policy. Figure 2.4-1 demonstrates graphically the conceptual urban structure of the city in the future.

- (1) Formation of Functional Town Frame

Formation of functional distribution frame that induces the development of Tripoli City

- Locate the trunk roads that connect the downtown, new Tripoli, and El-Mina each other, as main streets in the Tripoli metropolitan, and distribute the core businesses and commerce functions in and along the main streets.
- Form the life space that can provides with relaxed and active feeling, and presents the dwellers and visitors the attractiveness in walking.

- (2) Distribution of Systematic Open Space

Systematic distribution of urban axis, river water and greenery, and parks that shoulder the function of environmental improvement

Table 2.4-1 Directions of Urban Structure Improvement

<p>Activation of urban activity for the internationally focal city</p>	<ul style="list-style-type: none"> - To reinforce the function of distribution system, etc. Reinforce the function by using wide-space transport infrastructure facilities, such as the port and airport, etc. - To reinforce the function of commerce and business activities as a center of this wide-ranged area. Reinforce the function of commerce business as a center of regional business and finance.
<p>Realization of environmental friendly city</p>	<ul style="list-style-type: none"> - To comprehensively plan the urban traffic and land use. Correspond to negative effects, which were brought from excessive concentration of official functions. Land use that enables all human activities being enclosed in the daily life space range, with multiple functions. (to form self-sufficient community upon the realization of planned multi-functional system) - To conserve and improve greenery and water environment systematically. Planned improvement and conservation of greenery. Sustain well established ecological conditions with the planned improvement of river and water course. (Absorption of Nox and Co₂, prevention of being heat-land, and improvement of amenity)
<p>Realization of safety and comfort city in living style</p>	<ul style="list-style-type: none"> - To form road space that can help and support the emergency activities. Secure emergency roads and spaces, etc., in case of collapsing of buildings. Secure the access to the point of disaster. - To form the center that supports emergency activities Secure space for refuge and collection and distribution of emergency goods. - To form the networks of greenery and water use, which are useful for in emergency case and amenity. Arrange and distribute the water and greenery networks that can be the refuge space in emergency case.
<p>Improvement of urban structure by strengthening the characteristics of the city</p>	<ul style="list-style-type: none"> - To conserve and use historical heritages. Activate the use of historical heritage of town and touristic resources. - To strengthen the functions of coastal resorts. Improve the business function of the coastal resorts, targeting the neighboring countries.
<p>Improvement of urban structure to respond to any drastic increase in population</p>	<ul style="list-style-type: none"> - To improve the urban structure frame with the view of long-sighted urban development Establish framed road networks, taking into account the future expansion of town, for the prevention of sprawl and for the realization of well-planned urbanization. Flexible utilization management to cope with the alteration of future industrial structure and needs of urban improvement.

- Form well established greenery along the trunk roads and regional trunk roads that are urban frame, and distribute green belts in town throughout the area.
- Form greenery and water networks in coordination with the greenery axis as described in the above, such as natural river banking and expansion of greenery in open space and parks.

Establishment of networks with refuge roads, urban axis as refuge space, and parks

- On the trunk roads that place the greenery, attain wide walking space, to avoid the blockade of traffic that might be brought from the collapse of buildings, and at the same time, establish the sounding networks with emergency refuges, parks and open space as rescue centers, which will enable to secure space for safety of citizens, and smooth operation and recovery activities, in case of disaster.

Greenbelt in suburbs

- Restrain the unconditional expansion of urbanization, distribute green belts in suburbs in order to provide with comfort scenery and relaxed feeling, and conserve valuable natural scenery and space in Tripoli City.

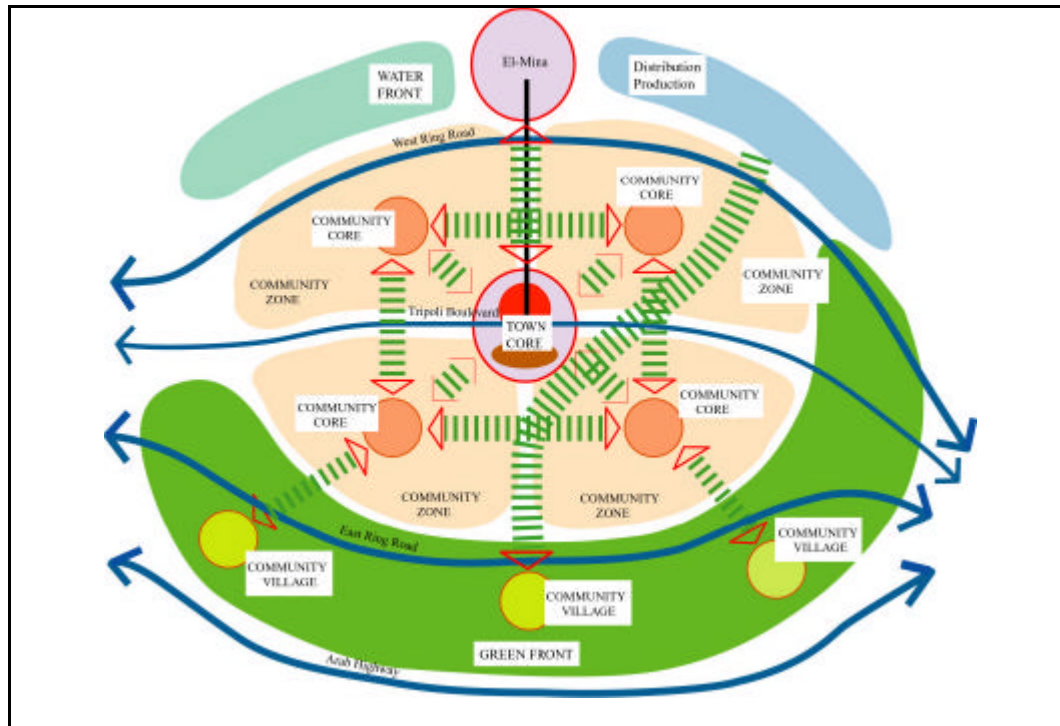


Figure 2.4-1 Conceptual Urban Structure - 2020

(3) Formation of Four Independent Communities

Formation of life zones, such as Tripoli West, Tripoli East, Abou Samra and El-Qoubbe etc.

- Alteration of urbanization into dispersed urban structure from one point urbanization.
- Form a community core in each community, place business and public facilities by zone unit, which supports daily life of the dwellers, and at the same time, promote the functional development of SOHO etc. accompanied with the development of the central area.

(4) Improvement of Frame Infrastructure Linking the Precedent Zones

Functional linkage of zones, frame formation of urban city and linear space that provides various functions in case of emergency. Functional linkage and enhancement of traffic in annular direction, which will reinforce the daily deal among zones, and form the system, in its consequence, that such deal with help to provide with supplemental functions each other in case of emergency.

(5) Planned Distribution of Functions (commerce, tourist, convention and distribution of goods)

- Distribute the main functions to enable to increase the attraction of city, in such a way that to link the historical zone with water-front to make urban resort, to link conventional function with resort function, to link all the commerce, convention and distribution functions, etc., developing not independently but combining the possible functions of internationally recognized function of Tripoli city.
- Develop the functions mentioned above in each zones and connect all main trunk roads, which will promote the independency of and correlation with each zone.