

**REPUBLIC OF LEBANON**  
**Ministry of Housing & Cooperatives**  
**Public Corporation for Housing**



## **NATIONAL HOUSING PLAN FOR LEBANON**

Republic of Lebanon  
Office of the Minister of State for Administrative Reform  
Center for Public Sector Projects and Studies  
(C.P.S.P.S.)

# **STATISTICS**

## **Housing Characteristics**

### **Analysis & Comments Part A**

**STAGE TWO**  
**VOLUME 2**

**2**



**SPECTRUM ENGINEERING CONSULTANTS S.A.R.L.**

شركة سبكتروم للاستشارات الهندسية ش.م.م.

*VOLUME 2*  
**HOUSING CHARACTERISTICS**

*PART A*

**ANALYSIS & COMMENTS**

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# **THE HOUSING CHARACTERISTICS**

# 1. THE HOUSING CHARACTERISTICS

## 1.1 NUMBER OF HOUSING UNITS, GEOGRAPHIC DISTRIBUTION, LEGAL STATUS

A clear picture of the current situation of the Lebanese housing sector necessitates the analysis of the data within the context of a historical and factual background.

The number of housing units and their geographical distribution, as well as their occupancy status, are all elements which are closely related to the Lebanese seventeen-year long conflict, to the Lebanese legislative system, as well as to natural trends like demographic evolution and migratory movements.

### *1.1.1 Number of housing units*

In this study, the following terminology was used to refer to different types of dwellings :

A **residence** is any type of housing unit, be it a house, an apartment, or a shack.

A **house** is an independent residence, whereas an **apartment** (or a flat) is a residence in a building which comprises several housing units.

Furthermore, residences are divided into main, secondary, and temporary ones.

A **main** residence refers to the housing unit which constitutes the main dwelling of the household all around the year, disregarding seasonal moving.

A **secondary** residence is a housing unit used by a household which already has a main residence. Secondary residences are, by definition, used on an on and off basis, often seasonally.

**Temporary** residences are those which are used temporarily by the occupying household, until they move elsewhere.

In this study, all residences were taken into account, regardless of their being adequate dwellings for the people living in them. Accordingly, there was no differentiation between a shack, a house, and an apartment.

Lebanon totals around 837,500 residences in its 6 Mohafazats, out of which around 793,000 are considered as main residences.

Most of the following tables and analysis will refer to the main residences in Lebanon.

The following table shows the distribution of all and main residences in Lebanon, by Mohafazat and Qada.

#### DISTRIBUTION OF ALL AND MAIN RESIDENCES BY MOHAFAZAT AND QADA

Mohafazat & Qada	All residences		Main residences	
	Number	in %	Number	in %
<b>BEIRUT</b>	<b>109,765</b>	<b>13.1%</b>	<b>109,765</b>	<b>13.8%</b>
<b>MOUNT LEBANON</b>	<b>351,706</b>	<b>42.0%</b>	<b>324,060</b>	<b>40.9%</b>
BAABDA	105,246	12.6%	101,641	12.8%
EL-MATEN	102,625	12.3%	98,750	12.5%
EL-SHUF	33,900	4.0%	31,920	4.0%
ALAY	39,498	4.7%	36,344	4.6%
KESRWAN	49,515	5.9%	38,937	4.9%
JBAYL	20,923	2.5%	16,468	2.1%
<b>NORTH LEBANON</b>	<b>139,998</b>	<b>16.7%</b>	<b>130,373</b>	<b>16.4%</b>
TRIPOLI	47,118	5.6%	46,575	5.9%
EL-KURA	10,775	1.3%	10,279	1.3%
ZGHORTA	12,977	1.5%	11,169	1.4%
EL-BATRUN	11,375	1.4%	9,875	1.2%
AKKAR	33,645	4.0%	31,327	4.0%
BSHARRE	6,334	0.8%	4,966	0.6%
EL-MENIYE	17,773	2.1%	16,182	2.0%
<b>BEKAA</b>	<b>101,694</b>	<b>12.1%</b>	<b>98,676</b>	<b>12.4%</b>
ZAHLE	35,295	4.2%	35,056	4.4%
WEST BEKAA	11,964	1.4%	11,774	1.5%
BAALBEK	41,916	5.0%	39,767	5.0%
EL-HERMEL	6,495	0.8%	6,120	0.8%
RASHAYYA	6,024	0.7%	5,959	0.8%
<b>SOUTH LEBANON</b>	<b>82,474</b>	<b>9.8%</b>	<b>79,865</b>	<b>10.1%</b>
SAYDA	45,553	5.4%	44,120	5.6%
SOUR	30,092	3.6%	29,067	3.7%
JEZZIN	6,829	0.8%	6,678	0.8%
<b>NABATYYE</b>	<b>51,832</b>	<b>6.2%</b>	<b>50,002</b>	<b>6.3%</b>
EL-NABATYYE	22,945	2.7%	22,397	2.8%
BENT-JBAYL	13,552	1.6%	12,956	1.6%
MARJ'AYUN	10,399	1.2%	9,833	1.2%
HASBAYYA	4,936	0.6%	4,817	0.6%
<b>TOTAL</b>	<b>837,468</b>	<b>100.0%</b>	<b>792,740</b>	<b>100.0%</b>

#### 1.1.2 Geographic distribution of housing units

42 % of all residences are in Mount Lebanon, 16.7 % in the North, and only 13.1% in the capital Beirut.

The remaining 28.1 % are distributed in the Mohafazats of the South, Nabatyye, and the Bekaa.

These proportions do not vary a lot when only main residences are considered.

The figures show an obvious concentration of residences, on the Mohafazat level, in one or two Qadas.

The Qadas of Baabda and El-Maten account for 59% of the residences in Mount Lebanon. In the North, Tripoli and Akkar account for almost 58% of all residences. In the Bekaa, Baalbek and Zahlé account for 76% of all the residences in the Mohafazat. In the South, the residences in Sayda and Sour represent 91.7% of the housing units in the Mohafazat. The Qada of Nabatyye, in the Mohafazat of Nabatyye, accounts for 44.3% of the residences in this Mohafazat.

Comparing the figures for 1970<sup>1</sup> corresponding to the main residences to those of 1997 highlights the redistribution of the population that has marked the last 27 years.

On a national level, the number of housing units doubled whereas the population increased by 80%.

This would mean that, on average, Lebanese households have become smaller in size.

By the beginning of the 70's, Beirut accounted for almost a quarter (24.2%) of the main residences in the country. 27 years later, this proportion decreased to 13.8%. Accordingly, the number of residences in the different Mohafazats increased at a higher rate than it did in Beirut. Actually, the number of main residences at least doubled (it almost tripled in the Mohafazat of the South and Nabatyye taken together) in all of the Mohafazats, except in the capital, where the rate of increase over a quarter of a century was only around 15 %.

Over the 1970-1997 period, Mount Lebanon seems to have benefited the most from the overall slowing down in Beirut. A closer look at the figures indicates more specifically, that the areas in Mount Lebanon which developed the most are the suburbs of Beirut, namely the suburban areas in the Qadas of Baabda and El-Maten.

<sup>1</sup> Survey on the active population in Lebanon, November 1970, Central Department for Statistics, July 1972.



**DISTRIBUTION OF MAIN RESIDENCES BY MOHAFAZAT, FOR 1970 AND 1997**

Mohafazat	1970		1997		Rate of increase
	Residences	% of total	Residences	% of total	
Beirut	95,610	24.2	109,765	13.8	14.8%
Beirut suburbs	87,255	22.0	203,726 *	25.7	133.5%
Mt. Lebanon (all)	156,465	39.5	324,060	40.9	107.1%
North	63,345	16.0	130,373	16.4	105.8%
South (including Nabatiyye)	44,505	11.2	129,866	16.4	191.8%
Bekaa	35,895	9.1	98,676	12.5	174.9%
<b>Total</b>	<b>395,820</b>	<b>100.00%</b>	<b>792,740</b>	<b>100.00%</b>	<b>100.3%</b>

\* The Mount Lebanon Mohafazat, Results of the census of buildings and establishments in 1996, Administration Centrale de la Statistique, Oct. 1997.

The capital's suburban areas in Mount Lebanon represented, in 1970, around 56% of the residences in the Mohafazat; in 1997, they represent 63%. The development started during the 60's, mainly brought about by rural migration. The eastern suburbs of Beirut developed the most however, with regards to adequate living conditions. Population movements resulting from the shelling, the fighting and the increases in war risks in certain regions of the capital further increased this trend.

The splitting of Beirut into two parts (East and West) in the mid 70's also played a major part in the population movements out of the capital.

Another migratory wave noted in the country was that of flight to the mountains, mainly Mount Lebanon (Qadas of El-Maten, Kesrwan, and Jbayl) where secondary residences were often transformed into main dwellings.

Rural development in a number of rural areas (namely in some villages in the safer regions) brought about population concentrations and hence housing.

Such rural development often discouraged the inhabitants of rural regions from moving nearer to Beirut, thus acting as a brake for traditional rural migration, and inciting many households to settle in those areas.

The main factors mentioned above contributed to the reduction of the percentage of residences in the capital Beirut, and mostly reinforced the areas in the rest of the Mohafazat which had remained relatively safe for the larger part of the war.

**1.1.3 Legal status of occupancy**

Over the last quarter of a century, the number of residences has doubled. However, this increase was not homogeneous neither vis-à-vis geographical

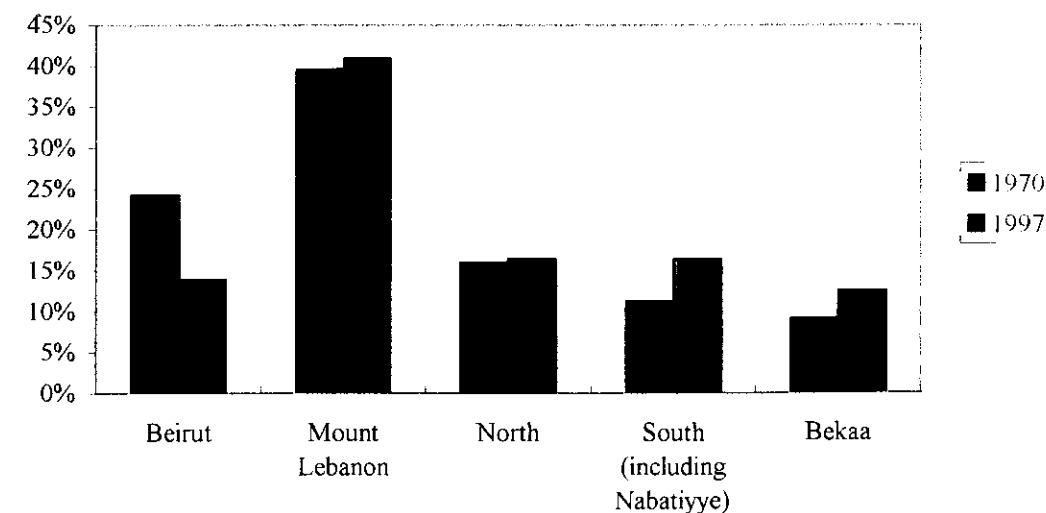
distribution of the residences, nor their legal status of occupancy. In other words, not only the distribution of the residences over all Lebanon has changed between 1970 and 1997, but also the status of these residences as owned, rented, squatted, etc. has been affected.

**DISTRIBUTION OF MAIN RESIDENCES BY LEGAL STATUS OF OCCUPANCY AND MOHAFAZAT IN % FOR 1970 AND 1997 (BY ROW)**

Mohafazat	1970 (% of residences by Mohafazat)				1997 (% of residences by Mohafazat)			
	Owned	Rented	Other	Total (=100%)	Owned	Rented	Other	Total (=100%)
Beirut	17.4	77.2	5.4	95,610	36.2	51.1	12.7	109,765
Mt. Lebanon	39.0	53.7	7.3	156,465	64.5	27.4	8.1	324,060
North	57.9	33.3	8.8	63,345	69.8	22.4	7.8	130,373
South (with Nabatiyye)	68.8	18.4	12.8	44,505	81.3	9.8	9.0	129,866
Bekaa	78.6	12.5	8.9	35,895	85.8	10.4	3.8	98,676
Lebanon	43.7	48.4	7.9	395,820	66.8	24.9	8.3	792,740

N.B. : In most of the figures presented in this text, the number of housing units which are being paid for on an instalment plan are included in the "owned" category. Their particular characteristic is that they are not yet officially registered in the name of the people who are paying for them, but are still registered as the property of the builder.

**Distribution of main residences by Mohafazat**





However, the capital Beirut is the Mohafazat with the highest proportion of rented dwellings (51% in 1997).

Between 1970 and 1997, the share of owned dwellings increased from around 44% to around 67%, whereas that of rented dwellings decreased from around 48% to around 25%.

The evolution of the ratio owned/rented household units offers more clarifications :

Mohafazat	Owned/rented in 1970	Owned/rented in 1997
Beirut	0.2	0.7
Mount Lebanon	0.7	2.4
North	1.7	3.1
South (including Nabatyye)	3.7	8.3
Bekaa	6.3	8.3
Total	0.9	2.7

The apparent increase of this ratio underlines the significant development of ownership all over the country during the last 27 years, although the classification of the Mohafazats according to this ratio was not altered.

In 1970, Beirut already had the lowest ratio and Bekaa the highest.

Several facts concerning the legal status of occupancy of residences explain the present and past distributions.

A preliminary observation should be made concerning the emergence, during the war, of the phenomenon of squatting. Squatting refers to the occupation of a residence by people who do not own or rent it ; they merely occupy a residence which is legally owned or rented by people who are not living in the residence at the time of the squatting.

Although a few squatted residences did exist before the war period (mid 70's), such methods of occupancy increased drastically during the conflict to reach, at its peak, 17% of all residences in 1987<sup>3</sup>.

Beirut and Mount Lebanon are the Mohafazats which have been subjected to most of the squatting, namely by displaced populations who sometimes abused of this situation for the purpose of benefiting from the monetary grants and privileges they could obtain from the authorities (Ministry of Displaced Persons, the Council for the South, etc.) if they claimed to be squatters with no other place to go to.

<sup>3</sup> The Social Dimension of the Reconstruction (in Arabic), Centre for Economic Policy Research and Analysis, October 1997.

In 1997, squatted residences represent 2.8% of the residences in Lebanon. They constitute 4.5%, 3.6%, 2.7%, 0.4% and 1.1% of all residences in Beirut, Mount Lebanon, North, Bekaa and South (Nabatyye included) respectively.

Today, less than 3 % of the main residences in the country are still squatted, thanks to the efforts of the authorities which enabled displaced families to return to their houses, mainly by the distribution of large amounts of money, and by helping to rebuild the damaged houses.

Even some private companies, namely SOLIDERE which is in charge of the reconstruction of downtown Beirut, have paid squatters to evict them from the buildings and houses they were occupying, in order to restore these buildings or tear them down.

As for the bulk of the residences, their classification as owned or rented, and their evolution may be explained by several factors.

Ownership progressed significantly between 1970 and 1997 in all of the Mohafazats, mainly at the expense of rental.

#### The rental freeze

In the 50's, the public authorities imposed restrictions on the increase of rents (within the context of a national social policy) which were supposed to be reviewed regularly.

However, rental adjustments were much less important than inflation, until the rents were completely frozen in 1982. From then onwards, the depreciation of the Lebanese Pound rendered the rents ridiculously low.

The distorting consequences on the housing market were immense. Mainly, the freeze on rents caused investors to lose their incentive to build, while owners of residential buildings lost their incentive to offer their properties for rent. In fact, it has traditionally been an aim in itself to construct a building and rent it, as this represents a guaranteed income for the owners, and after them, their children. This type of situation lost its attraction with the rent freeze and especially with hyper-inflation.

Thus, increasing inflation decreased the real value of rents, which became quite insignificant compared to the value of the residences. From the mid 80's and until the modification of the law on rents, most people having moved into rented houses before the rent freeze were living practically for free, at the expense of the landlords.

Global supply thus sank, even with regard to seasonal rents which were not supposed to decrease under the effect of this law.

The figures on the evolution of ownership and rental since the 50's bring out the main distortions undergone by the housing sector, mainly those intricately related to the law on rents.

On a national level<sup>4</sup> and over the period 1947-1997, 1978-1987 is the decade which has witnessed the most important residential acquisitions. Around 67% of the housing units in which people settled were then owned<sup>5</sup>.

As for the proportion of rented residences by year of settlement, this has been decreasing since the decade 1968-1977, mostly as a result of the freezing of rents in the 80's.

Indeed, the proportion of rented houses in the newly settled in housing units, between 1968 and 1977, was 31.5%. It fell to 20.5% between 1978 and 1987, and decreased again to 18% over the 1988-1992 period.

The opposite trend has appeared, however, since the partial liberation of rents in 1992. Since then, the proportion of those who settled newly in rented dwellings residences increased from 18% in 1992 to 37.8% in 1996, and 47% in 1997.

Today, on the Mohafazat level, Beirut is the only Mohafazat where the proportion of main rented residences is higher than that of owned ones.

#### A shy revival of the rental market

It is only since 1992, with the liberation and unblocking of the rent freeze that market forces were given an opportunity to regulate supply and demand, mainly for the unoccupied residences, and the newly constructed ones.

However, the prices remain relatively high for several reasons, thus impeding market auto-regulation.

Indeed, with regard to unoccupied residences, this hesitation to rent them, or the decision to rent them at high prices, are an outcome of uncertainty as to the permanency of the present legislation.

The risk of a new rent freeze is still present, justifying high risk premiums.

As for rented dwellings which were already inhabited before 1992, they are still rented on the basis of old rents (despite the increase rates that are allowed). This explains why more than half of the residences in Beirut are rented. Indeed, in 1992,

<sup>4</sup> cf. table (appendix) : Distribution of main residences by settlement year and legal status of residence.

the long since blocked landlords were finally allowed to increase rents in proportions varying according to the date of the rent contract.

#### Market regulation vs private interests

Nonetheless, investors have generally regained confidence in the Lebanese housing sector, and construction is once more under development, mainly in Beirut, especially after a period of utmost uncertainty at the end of the 80's and the beginning of the 90's.

In fact, even during the war, the initiative to build has remained notwithstanding the law on the freezing of rents.

Indeed, the emerging areas (essentially Mount Lebanon which accounted for around 60% of all real estate permits at the beginning of the 90's) have been the site for the largest proportion of construction, since population movements towards these regions and some rural regions are significant.

In Mount Lebanon, home ownership increased from 39% to 64.5% between 1970 and 1997, insofar as rental was quite rare during the war, due to the above-mentioned reasons.

Besides, most people who are permanent residents in the mountains own their houses or apartments. This characteristic is also valid in the Bekaa and the Southern regions where more than three quarters of residences are owned.

The tendency to own a dwelling and the shy revival of the rental market are at the basis of the housing crisis observed in Lebanon today. Actually, only a limited number of households can afford to acquire a residence (the existing housing loans are quite expensive), and rents are still relatively high.

It is true that construction has started up again, but most new constructions are the work of private investors who have invested their own capital and funds in their projects, since bank loans are extremely expensive and negatively affect their profitability rates. Most of them would therefore prefer to sell the units rather than to rent them.

The real estate market (mainly in its construction component) has, however, somehow encouraged the rental market, and this movement will go on amplifying over the next months, as long as the owners of unsold stocks will tend to let their unsold residences in order to cut down on losses.

#### **1.1.4 Current situation of the displaced**

The displacements constrained by the fighting all through the political crisis of 1975-1990 had led to the illegal and anarchic occupations of several localities in all the Lebanese regions. The seized places were not only residences ; schools, public departments, offices, hotels, cinemas... have also been squatted by the displaced population.

The efforts exerted by the public authorities as of 1990 for resolving the refugees' problem have allowed to reduce significantly the illegal occupations. Priority has been given to the places not destined for housing. It should be mentioned that the forced seizures of the commercial sites are marginal.

The occupations that remain today are concentrated in certain specific regions of the Beirut suburb and certain villages in the mountains. The settlement of these problems are linked to a special political environment and to budgets not yet insured.

The last figures of the Ministry of the displaced for 1996 show the marginalisation of the occupations of localities not destined for housing, and even the makeshift lodgings. Since then, things have further improved.

#### **DISPLACED FAMILIES ACCORDING TO TYPE OF CURRENT RESIDENCE**

Type of residence	No. of families	%
a house	19,445	27.50
apartment	42,141	59.59
chalet	1,098	1.55
a room in a school or a chapel	1,085	1.53
a room in an uninhabitable place	2,281	3.23
a shack	756	1.07
a part of a shared room	551	0.78
not available	3,359	4.75
<b>Total</b>	<b>70.716</b>	<b>100.00</b>

*Source : Ministry of Displaced-1996*

## 1.2 TYPES OF DWELLINGS

While the last 27 years brought about significant changes in the distribution of housing units by legal status of occupancy, they do not appear to have affected the proportions of the various types of dwellings available (mainly individual house, or flat in a building).

### 1.2.1 Types of Dwelling : houses or apartments

If all housing units in the country were to be considered, around 35% are houses and 63% are apartments<sup>6</sup>. As for the main dwellings, 38% are houses and 62% are apartments. These proportions remain very similar to those in the 70's.

#### DISTRIBUTION OF MAIN DWELLINGS BY MOHAFAZAT AND TYPE

Mohafazat	1970				1997			
	Houses	Apartments	Undetermined	Total	Houses	Apartments	Undetermined	Total
Beirut	7.3	88.0	4.7	95,610	4.9	95.1	-	109,765
Mount Lebanon	20.1	78.5	1.4	156,465	29.1	70.9	-	324,060
North	48.3	48.1	3.6	63,345	47.4	52.5	0.1	130,373
South (with Nabatyee)	71.2	27.6	1.2	44,505	59.4	40.6	-	129,866
Bekaa	78.1	21.1	0.8	35,895	63.2	36.8	-	98,676
Lebanon	35.1	62.5	2.4	395,820	38.0	62.0	-	792,740

On the Mohafazat level, the figures reflect a considerable increase in the proportion of apartments between the beginning of the 70's and 1997. However, two extreme cases can be considered : Mount Lebanon and Beyrouth.

Mount Lebanon seems to be an exception since quite a few of its rural dwellings are individual houses (especially in villages of the Qadas of Kesrwan and El-Maten), whereas flats represent the bulk of housing units in the urbanised coastal areas of the Mohafazat.

Beirut represents another special case. Indeed, the capital has suffered a great amount of destruction during the war, which had equally affected houses and apartments.

Today, almost all the new constructions in the capital represent buildings, mainly in the downtown district, where the real estate company SOLIDERE tore down the major part of the individual dwellings which were not classified as monuments of national heritage, to implement a large scale reconstruction project aiming to transform downtown Beirut into a very modern urban site.

<sup>6</sup> cf. table : Lebanon all, Distribution of the residences by type.

Nevertheless, the overall ratio between houses and apartments remains more or less the same in the period between 1970 and 1997. But the tendency is definitely towards the increase of apartment buildings at the expense of individual houses, especially in urbanised areas where available spaces are becoming scarcer every day.

Of course, individual dwellings never ceased to attract people, but their geographic distribution has already been altered under the impetus of the general shift towards multiple-storey buildings. More and more, they will become scarcer in dense areas, with their owners choosing to sell them to investors who would rapidly replace them by apartments, or even tear them down themselves, since the sale or even the renting of flats is much more profitable.

#### DISTRIBUTION OF MAIN DWELLINGS ACCORDING TO TYPE

Mohafazat	Data	House	Apartment	(blank)	Total
BEIRUT	Number of dwellings	5,365	104,400		109,765
	% of Row	4.9%	95.1%	0.0%	100.0%
	% of Col	1.8%	21.2%	0.0%	13.8%
MOUNT LEBANON	Number of dwellings	94,259	229,801		324,060
	% of Row	29.1%	70.9%	0.0%	100.0%
	% of Col	31.3%	46.7%	0.0%	40.9%
NORTH LEBANON	Number of dwellings	61,845	68,415	113	130,373
	% of Row	47.4%	52.5%	0.1%	100.0%
	% of Col	20.5%	13.9%	100.0%	16.4%
EL-BEKAA	Number of dwellings	62,404	36,272		98,676
	% of Row	63.2%	36.8%	0.0%	100.0%
	% of Col	20.7%	7.4%	0.0%	12.4%
SOUTH LEBANON	Number of dwellings	47,504	32,361		79,865
	% of Row	59.5%	40.5%	0.0%	100.0%
	% of Col	15.8%	6.6%	0.0%	10.1%
NABATYYE	Number of dwellings	29,596	20,407		50,002
	% of Row	59.2%	40.8%	0.0%	100.0%
	% of Col	9.8%	4.2%	0.0%	6.3%
<b>Total number of dwellings</b>		<b>300,972</b>	<b>491,656</b>	<b>113</b>	<b>792,740</b>
<b>Total % of Row</b>		<b>38.0%</b>	<b>62.0%</b>	<b>0.0%</b>	<b>100.0%</b>
<b>Total % of Col</b>		<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

The above table gives an overall view of the geographic distribution of houses and apartments. The urbanisation process that extended the borders of Beirut beyond its original limits in the 60's and still characterises different parts of the country, led to an important redistribution of apartments and individual dwellings over the country.

Many of the coastal and mountain regions in Mount Lebanon developed during the war, leading to a current concentration of 47% of the residential apartments in this Mohafazat. The capital follows with 21% of apartments.

As for the Mohafazats of the North, South, Nabatyee, and the Bekaa, they comprise more houses than apartments, and represent, together, 67% of the national stock of houses.

It is important to note that this rapid shift from houses to apartments at the Mohafazat level does not necessarily parallel the previously mentioned shift from rental to ownership.

Indeed, the large majority of houses are owned, whereas the increase in apartments has had no visible effect on the evolution of the ratio of ownership of apartments to rental.

It is true that new apartments are increasing in number, despite the absence of credit for investors (except for rather short-term financial facilities for a small number of credit-worthy individuals), but bank loans for the acquisition of a dwelling do exist, even though they are expensive.

The present housing crisis is a result of the increasing demand for rental as well as for acquisition, as opposed to the high prices in both sectors. Nevertheless, prices have started to go down, mainly because of the increase in the volume of unsold stocks of finished buildings and apartments. This situation should bring about a positive evolution in the number of occupied apartments, whether they are rented or owned.

### 1.2.2 *Dwellings by kinds of use*

Dwellings in Lebanon can also be categorised according to other criteria than their architectural characteristics (individual house or flat). They can also be classified according to their occupancy characteristics, whether they are main dwellings, secondary dwellings, or even temporary dwellings.

This differentiation between dwellings is mainly based on the period of time spent annually in the residence, and the use made of the house or the flat.

Seasonal moving from one house to another is not a common phenomenon in other parts of the world. Some households in Lebanon move to a different residence during the summertime, especially those who live in Beirut, where heat, humidity, and other summer inconveniences are difficult to cope with.

Secondary dwellings are generally located in the mountains and countryside, or even in the coastal areas where one can also benefit from leisure activities related to the sea.

Specific summer mountain resorts, like Bhamdun, Sofar, and Aley (Qada of Aley in Mount Lebanon) boomed before the war, but they were badly damaged

during the war and lost their attractiveness. Apart from Lebanese households, these regions used to attract many Arab tourists who enjoyed the Lebanese summers.

Even though the Lebanese conflict seriously damaged certain areas, it benefited others which, at least in the 80's, seemed safer than others, namely towns and villages in the Qadas of Kesrwan and El-Maten, still in the Mount Lebanon Mohafazat (such as Baabdat, Brummana, Kleiaat, Faqra,...).

Nowadays, although many people still prefer to spend the summer outside Beirut if they can afford it, many of them are living in the city in order to avoid the disadvantages of commuting (traffic, long distances to drive to get to work, etc.). Indeed, life in the city during the summer has become somewhat easier (air conditioning, proximity to work, etc.).

### DISTRIBUTION OF ALL DWELLINGS BY MOHAFAZAT AND CATEGORY OF OCCUPANCY

Mohafazat	Data	MAIN	Secondary	Temporary	Total
BEIRUT	Number of dwellings	109,765			109,765
	% of Row	100.0%	0.0%	0.0%	100.0%
	% of Col	13.8%	0.0%	0.0%	13.1%
MOUNT LEBANON	Number of dwellings	324,060	25,023	2,623	351,706
	% of Row	92.1%	7.1%	0.7%	100.0%
	% of Col	40.9%	63.1%	51.6%	42.0%
NORTH LEBANON	Number of dwellings	130,373	8,738	887	139,997
	% of Row	93.1%	6.2%	0.6%	100.0%
	% of Col	16.4%	22.0%	17.5%	16.7%
EL-BEKAA	Number of dwellings	98,676	2,311	707	101,694
	% of Row	97.0%	2.3%	0.7%	100.0%
	% of Col	12.4%	5.8%	13.9%	12.1%
SOUTH LEBANON	Number of dwellings	79,865	2,346	263	82,474
	% of Row	96.8%	2.8%	0.3%	100.0%
	% of Col	10.1%	5.9%	5.2%	9.8%
NABATYEE	Number of dwellings	50,002	1,230	600	51,832
	% of Row	96.5%	2.4%	1.2%	100.0%
	% of Col	6.3%	3.1%	11.8%	6.2%
<b>Total Nbr of dwellings</b>		<b>792,740</b>	<b>39,648</b>	<b>5,080</b>	<b>837,468</b>
Total % of Row		94.7%	4.7%	0.6%	100.0%
Total % of Col		100.0%	100.0%	100.0%	100.0%

*Remark : the survey was concluded with residents in 580 secondary housing units in Beirut and 1740 temporary dwellings. However, for statistical purposes, and a concern for realistic figures, all the dwellings in the Beirut sample have been considered as main housing units.*

Today, secondary dwellings account for a little less than 5% of all housing units. This proportion is quite similar to that of 1970 (5.1%).

In fact, many of those who had secondary dwellings (owned or rented on a long-term basis) before the war, mainly in relatively safe regions, moved to those dwellings on a fixed basis, transforming them into their main residence.

The return of peace and stability brought back a proportion of those households to their original homes, or to new dwellings rented or acquired principally in Beirut or its suburb.

On the other hand, migration movements from rural areas to more urbanised ones led to a transformation of the previous dwellings into secondary ones, at least for the dwellings which were kept by their occupants.

To that effect, differences between Mohafazats may be noted with regard to the proportion of secondary dwellings.

In fact, two types of migratory trends may be observed. The first one relates to the people who leave poor rural areas (where household density is very high), in order to move as near as possible to the capital, generally to its poorest suburbs. These people do not leave behind a residence which would then become a secondary residence for them. They just become new households with one main residence.

Another type of migration concerns the people who move to the city for professional reasons, for educational reasons, or just within the context of a traditional drift from the land. The bulk of these cases move from Mount Lebanon or the North, to Beirut or its most developed suburbs. Such households usually keep their previous dwellings in the prior Mohafazat, which then become secondary dwellings, used during the summer or even on weekends.

These local migrations partly justify the fact that Mount Lebanon and the North account for the bulk of secondary dwellings in the country (63% and 22%, respectively), while the Bekaa, the South, and Nabatyie together hardly represent 15% of Lebanon's secondary dwellings.

As for temporary dwellings, little can be said about their characteristics. In 1997, they only account for 0.6% of all dwellings.

They represent the dwellings occupied by households for a short period of time, until they move elsewhere (for example, newly wed couples).

They may also represent the dwellings which are rented, on a seasonal basis only, by their owners, to different occupants every new season. Actually, almost

52% of such dwellings are in Mount Lebanon and the North, which are the most attractive regions in the summer time.

Lastly, the main dwellings constitute the bulk of all dwellings. Whether in 1970 or in 1997, they represent around 95% of all the inhabited dwellings.

Around 41% of the main dwellings are located in Mount Lebanon, and Beirut comes in third position with around 14%, after the North which accounts for more than 16%.

Moreover, the geographic distribution of the main dwellings gives a realistic picture of the geographic distribution of the resident population. The figures may be summarised as follows :

#### DISTRIBUTION OF MAIN DWELLINGS AND POPULATION BY MOHAFAZAT IN 1997

Mohafazat	As % of all dwellings	As % of total population
Beirut	13.1	12.7
Mount Lebanon	42.0	38.6
North	16.7	18.8
El-Bekaa	12.1	13.5
South	9.8	10.4
Nabatyie	6.2	6.1
<b>Total</b>	<b>(837,468) 100.0%</b>	<b>(3,830,369) 100.0%</b>

As shown in the above table, the distribution of main dwellings is undoubtedly related to the geographic distribution of the population. However, a closer look at the figures gives a clearer picture of elements such as the density of the population in individual households, as well as nation-wide throughout the Lebanon. These issues will be commented in the forthcoming sections.



### 1.3 AGE AND CONDITION OF BUILDINGS

#### 1.3.1 *Number of buildings*

MOHAFAZAT & QADA	Number of Buildings	% of total buildings	% of Qadas in Mohafazat	All residences/ Buildg
<b>BEIRUT</b>	<b>13,626</b>	<b>3.5%</b>	<b>100.00%</b>	<b>8.1</b>
<b>MOUNT LEBANON</b>	<b>142,871</b>	<b>36.6%</b>	<b>100.00%</b>	<b>2.5</b>
BAABDA	31,775	8.1%	22.20%	3.3
EL-MATEN	30,007	7.7%	21.00%	3.4
EL-SHUF	25,574	6.6%	17.90%	1.3
ALAY	22,957	5.9%	16.10%	1.7
KESRWAN	19,986	5.1%	14.00%	2.5
JBAYL	12,571	3.2%	8.80%	1.7
<b>NORTH LEBANON</b>	<b>80,865</b>	<b>20.7%</b>	<b>100.00%</b>	<b>1.7</b>
TRIPOLI	9,304	2.4%	11.50%	5.1
EL-KURA	9,504	2.4%	11.80%	1.1
ZGHORTA	9,833	2.5%	12.20%	1.3
EL-BATRUN	9,363	2.4%	11.60%	1.2
AKKAR	26,417	6.7%	32.60%	1.3
BSHARRE	4,544	1.2%	5.60%	1.4
EL-MENIYE	11,900	3.1%	14.70%	1.5
<b>BEKAA</b>	<b>66,648</b>	<b>17.1%</b>	<b>100.00%</b>	<b>1.5</b>
ZAHLE	17,647	4.5%	26.50%	2.0
WEST BEKAA	8,481	2.2%	12.70%	1.4
BAALBEK	30,671	7.9%	46.00%	1.4
EL-HERMEL	4,994	1.3%	7.50%	1.3
RASHAYYA	4,855	1.2%	7.30%	1.2
<b>SOUTH LEBANON</b>	<b>47,866</b>	<b>12.3%</b>	<b>100.00%</b>	<b>1.7</b>
SAYDA	20,066	5.1%	41.90%	2.3
SOUR	22,741	5.8%	47.50%	1.3
JEZZIN	5,060	1.3%	10.60%	1.3
<b>NABATYYE</b>	<b>38,052</b>	<b>9.8%</b>	<b>100.00%</b>	<b>1.4</b>
EL-NABATYYE	15,312	3.9%	40.20%	1.5
BENT-JBAYL	10,572	2.7%	27.80%	1.3
MARJAYUN	8,133	2.1%	21.40%	1.3
HASBAYYA	4,036	1.0%	10.60%	1.2
<b>TOTAL</b>	<b>389,927</b>	<b>100.0%</b>		<b>2.1</b>

N.B. : In this study, will be considered a **building** every construction which comprises one or more housing units.

Lebanon has a total of around 390,000 buildings, if we include in this category all inhabited residential constructions, whether they are individual houses or multi-storey high rise buildings.

Among the Mohafazats, Mount Lebanon accounts for almost 37% of all buildings in the country, followed by North Lebanon and the Bekaa, which, together, represent around 38%.

Beirut comes last, representing less than 4% of all buildings.

The concentration of buildings in one or 2 Qadas in each Mohafazat can be roughly compared to the concentration of residences in one or 2 Qadas by Mohafazat, specifically the Qadas where the main cities lie.

However, the distribution of actual housing units over the buildings shows the obvious importance of the capital city Beirut with regard to the concentration of residences per constructed unit (or building). As a matter of fact, Beirut accounts for the smallest proportion of individual houses (5%) compared to the other Mohafazats.

Moreover, buildings in Beirut account, on average, for 8.1 housing units, whereas buildings in the rest of the Qadas comprise on average, between 1.1 and 3.4 housing units per building.

The fact is, despite the higher proportion of apartments compared to houses in the country (61% against 39%), apartment buildings do not have the same characteristics from one Mohafazat to another.

It seems that, on average, buildings in the capital include between 5.6 and 6.7 times more housing units than those in other Mohafazats.

These figures lead to us to one main conclusion concerning the architecture of buildings. They are at least 3 times higher, on average, in Beirut, than in the other Mohafazats.

Of course, this conclusion takes into account the number of apartments per floor. As a matter of fact, around 96% of buildings in Lebanon consist of 1 or 2 housing units per floor, (79% have only one residence), which leads us to the conclusion that buildings in the city are not larger, on average, than buildings in other Mohafazats, but certainly taller.

This is a very logical observation since very few free spaces or plots are recorded in the capital, making it almost impossible to expand residential buildings horizontally.

#### 1.3.2 *Construction year*

On a national level, around 56% of the currently inhabited buildings were built between 1958 and 1992 (the year that the Lebanese conflict ended). The residential buildings constructed since the end of the war account today for 2.5% of the total

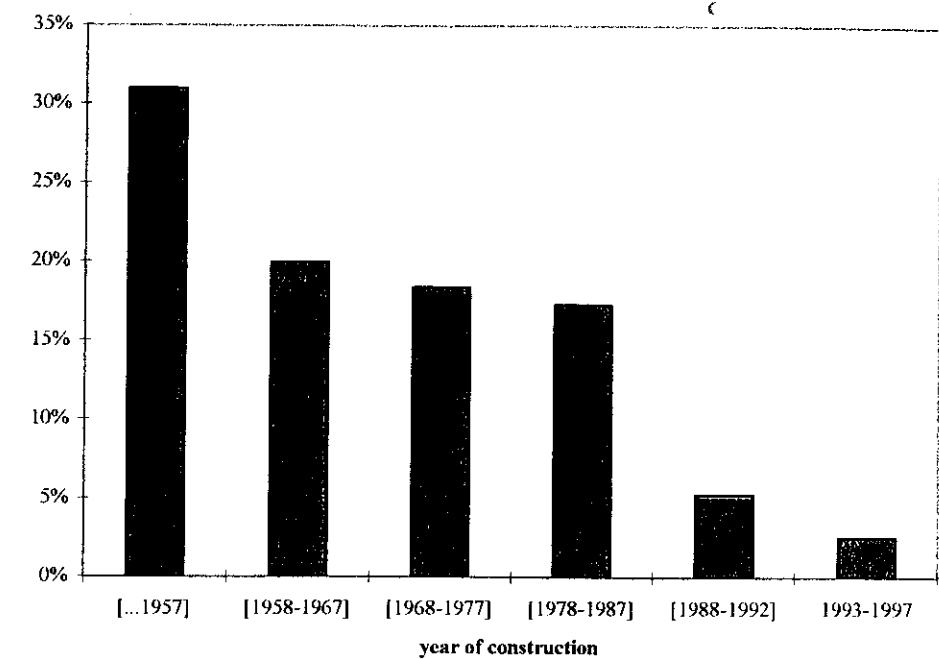
stock of buildings. Less than 1% of the current building stock has survived from the 19th century, whereas around 18% has survived both world wars.

Since the end of the war, Mount Lebanon has been the main site for new residential buildings accounting, on average, over the last 5 years, for around 28% of newly constructed buildings every year.

#### DISTRIBUTION OF ALL BUILDINGS ACCORDING TO THE YEAR OF CONSTRUCTION

Mohazat & Qada	[...1957]	[1958-1967]	[1968-1977]	[1978-1987]	[1988-1992]	1993	1994	1995	1996	1997	Blank	Total
<b>BEIRUT</b>	5,274	2,736	3,816	900	252	54	90	36	36	36	396	13,626
<b>MOUNT LEBANON</b>	45,044	31,539	26,967	20,567	6,049	972	538	572	569	155	9,899	142,871
BAABDA	8,496	7,811	6,210	6,287	1,219	305	152	76	114	76	1,029	31,775
EL-MATEN	10,138	8,029	5,624	2,294	666	148	111	111	37	37	2,812	30,007
EL-SHUF	12,845	5,242	3,226	2,477	1,152	115	173	115	173		58	25,574
ALAY	8,145	3,714	6,246	2,532	1,604	253	42	211	127	42	42	22,957
KESRWAN	2,947	4,329	3,653	4,912	768	92	31		31		3,223	19,986
JBAYL	2,474	2,415	2,008	2,066	640	58	29	58	87		2,735	12,571
<b>NORTH LEBANON</b>	20,119	12,629	13,115	17,168	5,631	507	458	787	571	99	9,780	80,865
TRIPOLI	2,718	1,083	619	508	265						4,111	9,304
EL-KURA	2,025	1,323	1,566	2,133	648	27	108	54	81	27	1,512	9,504
ZGHORTA	2,742	1,551	1,330	2,604	803	28	28	111	111		526	9,834
EL-BATRUN	3,431	1,782	1,117	825	452	27	80	106	106	27	1,410	9,363
AKKAR	5,166	4,696	5,479	7,201	2,544	313	196	391	196	39	196	26,417
BSHARRE	1,421	636	740	1,317	237	15	15	15	30		118	4,544
EL-MENIYE	2,874	1,538	2,306	2,473	435	100		67	33		2,713	11,900
<b>BEKAA</b>	17,309	13,866	15,631	13,862	3,849	386	191	697	232	57	567	66,648
ZAHLE	5,085	3,410	4,128	3,440	808	179	60	150	30		359	17,647
WEST BEKAA	2,914	1,729	1,777	1,421	426	24	24	71			95	8,481
BAALBEK	5,657	7,314	7,880	7,031	1,980	81		404	202	40	81	30,671
EL-HERMEL	1,802	601	1,051	995	375	38	75	56				4,994
RASHAYYA	1,851	812	796	974	260	65	32	16		16	32	4,855
<b>SOUTH LEBANON</b>	15,772	10,006	7,421	8,893	3,122	561	483	328	257	129	896	47,866
SAYDA	4,873	3,153	3,481	4,668	1,966	328	287	328	164	82	737	20,066
SOUR	8,435	5,499	3,169	3,961	1,025	233	140		93	47	140	22,741
JEZZIN	2,464	1,354	771	263	132		56				19	5,060
<b>NABATIEH</b>	17,252	6,958	4,664	6,187	1,628	453	318	247	33	104	207	38,052
EL-NABATIYYE	7,910	3,446	1,253	1,684	431	117	157	117		39	157	15,312
BENT-JBAYL	4,800	1,600	1,286	2,039	408	251	94	63		31		10,572
MARJAYUN	3,033	1,233	1,633	1,633	433		33	33	33	33	33	8,133
HASBAYYA	1,509	678	492	831	356	85	34	34			17	4,036
<b>TOTAL</b>	<b>120,771</b>	<b>77,733</b>	<b>71,614</b>	<b>67,577</b>	<b>20,531</b>	<b>2,933</b>	<b>2,078</b>	<b>2,667</b>	<b>1,698</b>	<b>580</b>	<b>21,745</b>	<b>389,927</b>

Distribution of buildings by year of construction (for all Lebanon)



The Mohafazats of the North and the South have also added an important proportion of new buildings since the war, followed by Nabatyie and the Bekaa, on average over the last 5 years: 24% (North), 18.4 (South), 14.4% (Bekaa) 12.0 (Nabatyie).

Beirut's new residential buildings have amounted to around 3% of the new stock annually since 1992. The explanation is simple however.

Besides a few specific residential areas of luxury standards, most of the city has been witnessing the construction of trade centres and malls.

On the other hand, the Southern regions of the country have been continuously welcoming back the displaced who have been encouraged to return to the areas they fled from during the war, mainly thanks to the financial grants of the local authorities, and their contribution to the reconstruction activity in these regions.

#### 1.3.3 Condition

The above comments on the age and the geographical distribution of the stock of residential buildings enable some comparisons with the condition of these buildings.

Around 86% of the present stock of residential buildings are in good or in fair condition. This seems to be a good proportion, considering that more than 31% of all buildings have been built before the 60's.

However, more than 11% of inhabited buildings are in a bad condition. Those unfinished, dilapidated or just improvised constitute lodgings for some displaced populations who have not yet returned to their regions, or who have gone back to unfit buildings.

Furthermore, these types of buildings serve as residences for the majority of Syrian and Egyptian workers who frequently live on, or near, the construction sites in which they work during the day. Shacks, huts and containers also serve as lodgings for these populations (although they do not correspond to the study's definition of "building").

A closer look at the Qada level shows the main areas whose buildings have been damaged by the shelling and have not been adequately repaired or restored, mostly due to the lack of financial means on the part of the stakeholders. Other areas suffer from unplanned urbanisation, mostly in the suburbs of principal cities in rural areas.

Among such areas, we find:

- Baabda, al-Maten, and Aley which were often war targets.
- The suburbs of Tripoli and the Quada of Akkar which suffer from inadequate urbanisation and poverty.
- Spontaneous and haphazard construction, as well as poverty, entailed a concentration of unsuitable or sub-standard buildings in Baalbek and Marj'ayun (today occupied by Israeli forces).
- As for Sayda and Sour, they are among the Lebanese towns which have been the most shelled during the war (they account for almost 89% of the buildings which are in bad condition in the South).

On the whole, the Mohafazats of Mount Lebanon, the North and the Bekaa account for the major part of dilapidated and damaged buildings, especially since such buildings are being repaired or torn down in Beirut, and reconstruction and rehabilitation of housing units has begun in the South.

However, besides destruction due to the war, poverty, and unplanned urbanisation, one other element should not be overlooked as it continues to be a major factor in the degradation of conditions in some buildings: that is the lack of comprehensive and clear laws concerning the management of residential buildings.

Buildings in co-ownership, buildings with rented flats, or buildings comprising both types of occupancy status, are all exposed to the risk of degradation, following internal conflicts among co-owners or tenants with regards to what is considered regular adequate maintenance.

Building management companies do not exist, and the fate of the building often depends on its occupants and their good will to contribute to the financing of maintenance.

Lebanese Law continues to neglect such issues as co-ownership and rental, thus preventing these internal conflicts from being adequately, rationally, and legally solved.

The inadequacy of the law, its lagging behind modern management methods, as well as the lack of coercive power on behalf of one managing organism, have led to numerous building deterioration.

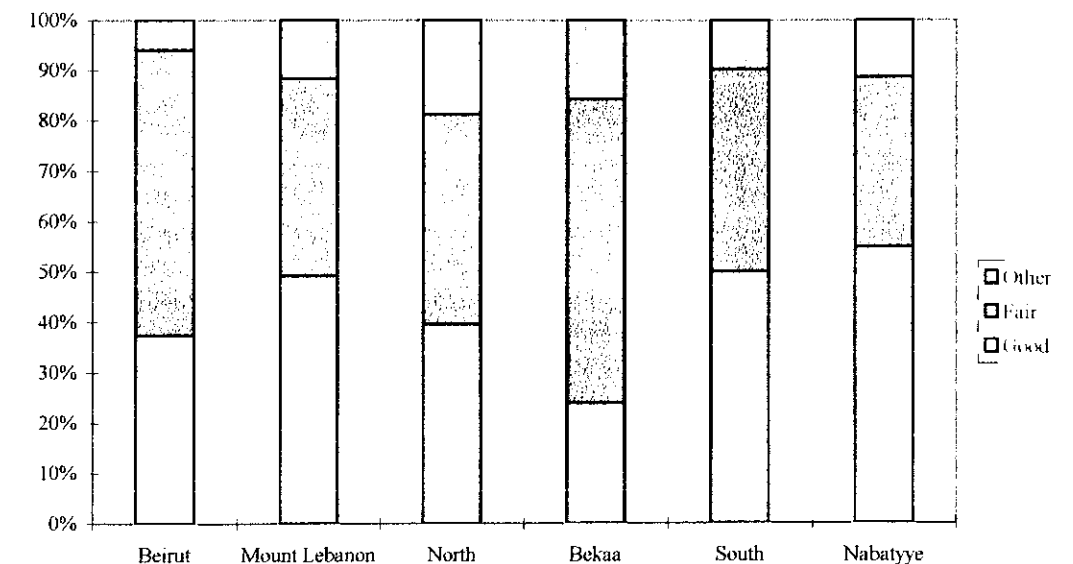
For instance, buildings built before the 80's were classified as "luxury" or "ordinary", referring to the existence of utilities such as an elevator, a central heating system (individual or common), a caretaker, etc. Since the Law which was then only for residential units imposed a freeze on the rents for "ordinary" buildings, "luxury" buildings increased, and consequently their internal conflicts, since financing the maintenance of common utilities and services resulted in clashes between occupants, thereby frequently leading to the abandonment of utilities and to the neglect of the condition of the building.

This trend will most probably persist, especially within the context of the new type of residential projects (in which residential units are combined with leisure settings and shopping outlets) where a big number of households benefit from common building utilities (lift, heating system, pool, etc.) which necessitate constant maintenance.

**DISTRIBUTION OF THE RESIDENTIAL BUILDINGS ACCORDING TO THEIR CONDITION**

Mohafazat	Data	CONDITION OF THE BUILDINGS							Total
		Good	Fair	Bad	Dilapi-dated	Unfi-nished	Impro-vised	(blank)	
BEIRUT	Number	5,094	7,740	702	36			54	13,626
	% of Row	37.4%	56.8%	5.2%	0.3%	0.0%	0.0%	0.4%	100.0%
	% of Col	3.0%	4.6%	1.6%	1.8%	0.0%	0.0%	5.4%	3.5%
MOUNT LEBANON	Number	70,166	55,934	13,908	409	1,489	426	539	142,870
	% of Row	49.1%	39.1%	9.7%	0.3%	1.0%	0.3%	0.4%	100.0%
	% of Col	41.8%	32.9%	31.7%	19.9%	35.1%	44.3%	53.5%	36.6%
NORTH LEBANON	Number	31,079	34,075	11,844	703	2,458	328	379	80,865
	% of Row	38.4%	42.1%	14.6%	0.9%	3.0%	0.4%	0.5%	100.0%
	% of Col	18.6%	20.0%	26.6%	34.6%	57.8%	35.7%	37.4%	20.7%
EL-BEKAA	Number	15,965	40,214	9,441	670	154	164	40	66,648
	% of Row	24.0%	60.3%	14.2%	1.0%	0.2%	0.2%	0.1%	100.0%
	% of Col	9.5%	23.7%	21.5%	32.7%	3.6%	17.1%	4.0%	17.1%
SOUTH LEBANON	Number	23,965	19,260	4,431	129	82			47,866
	% of Row	50.1%	40.2%	9.3%	0.3%	0.2%	0.0%	0.0%	100.0%
	% of Col	14.3%	11.3%	10.1%	6.3%	1.9%	0.0%	0.0%	12.3%
NABATYYE	Number	20,832	12,876	4,194	84	67			38,052
	% of Row	54.7%	33.8%	11.0%	0.2%	0.2%	0.0%	0.0%	100.0%
	% of Col	12.4%	7.6%	9.6%	4.1%	1.6%	0.0%	0.0%	9.8%
<b>Total Number of buildings</b>		<b>168,021</b>	<b>169,761</b>	<b>43,876</b>	<b>2,050</b>	<b>4,249</b>	<b>962</b>	<b>1,007</b>	<b>389,927</b>
Total % of Row		43.1%	43.5%	11.3%	0.5%	1.1%	0.2%	0.3%	100.0%
Total % of Col		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Distribution of the residential buildings according to their condition



## 1.4 SIZE OF RESIDENTIAL UNIT AND INCIDENCE OF UTILITIES

### 1.4.1 *Size of residential units*

#### 1.4.1.1 *Surface area of the residential units*

The table below indicates the number of residential units per Mohafazat according to the surface area of the residence.

#### DISTRIBUTION OF MAIN RESIDENCES BY CATEGORIES OF AREA AND BY MOHAFAZAT

Mohafazat	Data	]0-50]	]50-100]	]100-150]	]150-200]	]200-250]	]250-....]	(blank)	Total
BEIRUT	Number	14,500	44,950	29,725	15,225	3,625	1,595	145	109,765
	% of Row	13.2%	41.0%	27.1%	13.9%	3.3%	1.5%	0.1%	100.0%
	% of Col	23.3%	17.9%	11.0%	10.6%	8.8%	7.3%	6.2%	13.8%
MOUNT LEBANON	Number	28,463	107,792	107,137	57,174	16,207	6,401	887	324,060
	% of Row	8.8%	33.3%	33.1%	17.6%	5.0%	2.0%	0.3%	100.0%
	% of Col	45.6%	43.0%	39.6%	39.7%	39.5%	29.3%	38.1%	40.9%
NORTH LEBANON	Number	9,971	35,033	45,991	25,176	7,833	5,387	982	130,373
	% of Row	7.6%	26.9%	35.3%	19.3%	6.0%	4.1%	0.8%	100.0%
	% of Col	16.0%	14.0%	17.0%	17.5%	19.1%	24.7%	42.2%	16.4%
EL-BEKAA	Number	4,814	27,128	38,230	18,519	6,120	3,696	169	98,676
	% of Row	4.9%	27.5%	38.7%	18.8%	6.2%	3.7%	0.2%	100.0%
	% of Col	7.7%	10.8%	14.1%	12.9%	14.9%	16.9%	7.3%	12.4%
SOUTH LEBANON	Number	2,324	20,484	31,066	17,142	4,737	4,112		79,865
	% of Row	2.9%	25.6%	38.9%	21.5%	5.9%	5.1%	0.0%	100.0%
	% of Col	3.7%	8.2%	11.5%	11.9%	11.5%	18.8%	0.0%	10.1%
NABATYYE	Number	2,287	15,241	18,569	10,618	2,498	648	143	50,002
	% of Row	4.6%	30.5%	37.1%	21.2%	5.0%	1.3%	0.3%	100.0%
	% of Col	3.7%	6.1%	6.9%	7.4%	6.1%	3.0%	6.1%	6.3%
<b>Total Number of residences</b>		<b>62,359</b>	<b>250,627</b>	<b>270,718</b>	<b>143,853</b>	<b>41,020</b>	<b>21,839</b>	<b>2,325</b>	<b>792,740</b>
Total % of Row		7.9%	31.6%	34.1%	18.1%	5.2%	2.8%	0.3%	100.0%
Total % of Col		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The modal surface area for a Lebanese residence is between 100 and 150 square meters. In fact, this category of surface area includes 34% of all main dwellings in Lebanon.

The second most frequent size interval lies between 50 and 100 square meters and accounts for 31% of the total number of residential units. 18% of all residences have an area between 150 and 200 square meters.

- *The average surface area per residence*

The table below indicates the surface area of an average residence per Mohafazat or Qada.

## AVERAGE AREA IN SQM FOR MAIN RESIDENCES

Place of residence	Average area	Place of residence	Average area
BEIRUT	104	BEKAA	129
MOUNT LEBANON	117	ZAHLE	128
BAABDA	123	WEST BEKAA	135
EL-MATEN	106	BAALBEK	127
EL-SHUF	128	EL-HERMEL	119
ALAY	124	RASHAYYA	136
KESRWAN	116	SOUTH LEBANON	135
JBAYL	110	SAYDA	147
NORTH LEBANON	127	SOUR	119
TRIPOLI	98	JEZZIN	126
EL-KURA	151	NABATYYE	123
ZGHORTA	163	EL-NABATYYE	120
EL-BATRUN	140	BENT-JBAYL	112
AKKAR	130	MARJAYUN	140
BSHARRE	118	HASBAYYA	134
EL-MENIYE	159	ALL LEBANON	120

The average surface area of a residence in Lebanon is estimated at around 120 square meters. With the largest average surface area in the Qada of Zghorta of 163 square meters and a smallest average in the Qada of Tripoli with 98 square meters.

1.4.1.2 *Number of rooms*

The table below indicates the number of rooms per residence.

## DISTRIBUTION OF MAIN RESIDENCES BY MOHAFAZAT AND NUMBER OF ROOM (EXCLUDED KITCHENS AND UTILITY ROOMS)

Mohafazat	Number of rooms										Total
	1	2	3	4	5	6	7	8	9+	(blank)	
BEIRUT	6,960	19,865	23,635	26,825	20,880	7,105	3,045	870	435	145	109,765
% of Row	6.3%	18.1%	21.5%	24.4%	19.0%	6.5%	2.8%	0.8%	0.4%	0.1%	100.0%
% of Col	20.7%	12.5%	11.3%	13.6%	16.4%	15.8%	25.4%	17.4%	12.9%	32.0%	13.8%
MOUNT LEBANON	13,630	71,789	76,582	80,344	56,213	18,523	4,092	1,715	1,173		324,060
% of Row	4.2%	22.2%	23.6%	24.8%	17.3%	5.7%	1.3%	0.5%	0.4%	0.0%	100.0%
% of Col	40.5%	45.3%	36.5%	40.6%	44.2%	41.2%	34.2%	34.3%	34.8%	0.0%	40.9%
NORTH LEBANON	3,029	17,885	39,819	35,942	19,994	8,926	2,490	1,130	871	287	130,373
% of Row	2.3%	13.7%	30.5%	27.6%	15.3%	6.8%	1.9%	0.9%	0.7%	0.2%	100.0%
% of Col	9.0%	11.3%	19.0%	18.2%	15.7%	19.9%	20.8%	22.6%	25.8%	63.4%	16.4%
EL-BEKAA	3,853	20,792	30,917	24,884	12,986	3,707	786	496	253		98,676
% of Row	3.9%	21.1%	31.3%	25.2%	13.2%	3.8%	0.8%	0.5%	0.3%	0.0%	100.0%
% of Col	11.4%	13.1%	14.7%	12.6%	10.2%	8.2%	6.6%	9.9%	7.5%	0.0%	12.4%
SOUTH LEBANON	3,163	15,616	22,337	18,753	11,770	5,797	1,279	610	540		79,865
% of Row	4.0%	19.6%	28.0%	23.5%	14.7%	7.3%	1.6%	0.8%	0.7%	0.0%	100.0%
% of Col	9.4%	9.8%	10.7%	9.5%	9.2%	12.9%	10.7%	12.2%	16.0%	0.0%	10.1%
NABATYYE	3,020	12,623	16,415	11,053	5,414	887	286	184	100	21	50,002
% of Row	6.0%	25.2%	32.8%	22.1%	10.8%	1.8%	0.6%	0.4%	0.2%	0.0%	100.0%
% of Col	9.0%	8.0%	7.8%	5.6%	4.3%	2.0%	2.4%	3.7%	3.0%	4.6%	6.3%
<b>Total Number of residences</b>	<b>33,654</b>	<b>158,571</b>	<b>209,705</b>	<b>197,801</b>	<b>127,257</b>	<b>44,945</b>	<b>11,977</b>	<b>5,004</b>	<b>3,373</b>	<b>453</b>	<b>792,740</b>
Total % of Row	4.2%	20.0%	26.5%	25.0%	16.1%	5.7%	1.5%	0.6%	0.4%	0.1%	100.0%
Total % of Col	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The majority of residences consist of between 2 to 4 rooms, and the average number of rooms per residence in Lebanon is estimated to be 3.58 rooms.

As observed in the foregoing data, the average surface area of residences and the equivalent number of rooms per unit depend on the location of the residence and whether it is located in an urban zone or in a rural zone. As a matter of fact residences in the urban areas are much smaller than the residences situated in rural areas. In order to underline those differences we will describe in the following paragraph the average surface area of a residence and the number of rooms according to the specific Mohafazat or Qada.

- *Analysis by Mohafazat*

## a- Mohafazat of Beirut

As is the case in all the cities of the world, lodgings in the big cities are much smaller than those in the suburbs or in the provinces. This phenomenon is also observed in Beirut.

81.3% of the residences located in the Mohafazat of Beirut are small residences with an area not exceeding 150 square meters. 54.2% have an area of less than 100

square meters. Only 18% of the residences have a surface area exceeding 150 square meters. The average surface area of a residential unit in Beirut is around 104 square meters, which is almost 15% less than the national average area of a residence.

Because of the scarcity and the high cost of land in Beirut, promoters are accustomed to build small apartments in order to satisfy the excessive demand for lodgings in that part of the country and to amortise the total cost of construction over a larger number of apartments.

In Beirut, 24% of the housing units consist of four rooms, 46% have less than four rooms and 30% have more than four rooms. The average number of rooms per housing unit in Beirut is 3.69, which is 3% higher than the total average.

#### **b- Mohafazat of Mount-Lebanon**

Here again, the largest proportion of residences (75.2%) have an area that does not exceed 150 square meters. 42.1% are less than 100 square meters. Besides, 25% of the residential units have an area exceeding 150 square meters, with only 2% having an area exceeding 250 square meters. This distribution can be explained by the fact that most residential units in Mount Lebanon are located in the suburbs of Beirut, and consequently follow the same standards and constraints as the residential units located in Beirut.

The average surface area of a housing unit located in Mount Lebanon is estimated at around 117 square meters, i.e. a little higher than the average observed in Beirut, and 3% lower than the national average. The highest average observed is 128 square meters in El-Chouf, and the lowest is 106 square meters in El-Maten.

In Mount-Lebanon, 25% of residential units have four rooms, 50% have less than four rooms and 25% have more than four rooms. The average number of rooms per residence is 3.56, and this ranges between 3.94 in El-Chouf and 2.9 in Kesrwan. The low average of Kesrwan may be explained by the existence of many residential units in beach resorts.

#### **c- The North**

The surface area of 69.8% of the residential units located in the North is less than 150 square meters. 34.5% of the residences are less than 100 square meters. The average surface area of a residential unit in the North is estimated to lie around 127 square meters which is 5% higher than the national average. The Mohafazat of the North includes more rural Qadas than urban Qadas which explains a higher average surface area of residential units. The lowest average surface area of residential units observed in the Mohafazat of the North is in Tripoli with an average of 99 square meters and the highest is in the Qada of Zghorta with an average of 161 square meters.

In the North, 28% of the housing units have four rooms, 47% have less than four rooms and 25% have more than four rooms. The average number of rooms per residence in the North is 3.77, being 5% higher than the national average. The average number of rooms per housing unit in the various Qadas of the Mohafazat of the North varies between a maximum of 4.49 in Zghorta and a minimum of 3.17 in Jbeil.

#### **d- The Bekaa**

71.1% of the housing units located in the Bekaa are smaller than 150 square meters and 32.4% are smaller than 100 square meters. 30% have a surface area exceeding 150 square meters. The average surface area of housing units in the Bekaa is estimated at approximately 129 square meters, which is 7% higher than the national average. The Mohafazat of the Bekaa is considered as more of a rural zone than other Mohafazats. The lowest average surface area per housing unit is observed in the Qada of El-Hermel with an average of 119 square meters and the highest average is in the Qada of Rashaya with an average of 136 square meters. The average surface area of housing units in the different Qadas of the Bekaa is almost equivalent.

In the Bekaa, 25% of housing units have four rooms, 56% have less than four rooms and 19% have more than four rooms. The average number of rooms per housing unit is 3.41, which is 5% less than the national average. The average per Qada varies between 3.71 in Rashaya and 2.98 in El-Hermel.

#### **e- The Mohafazat of the South**

Two thirds (67.4%) of housing units located in the South have a surface area of less than 150 square meters. 28.5% are less than 100 square meters. The average surface area of the housing units in the South is estimated around 135 square meters, which is the highest average of any Mohafazat observed in Lebanon and exceeds the national average by 12%. The lowest average of residences observed in the Mohafazat of the South is in the Qada of Sour with an average surface area of 119 square meters, almost equivalent to the average in Mount-Lebanon. The highest average surface area in any Qada is in the Qada of Saïda with an average of 147 square meters.

In the South, 24% of housing units have four rooms, 52% have less than four rooms and 24% have more than four rooms. The average number of rooms per housing unit is 3.62 and varies from a high of 3.93 rooms in Saïda to 3.20 in Sour.

#### **f- The Mohafazat of Nabatyye**

72.2% of the housing units located in Nabatyye have a surface area under 150 square meters, and 35.1% less than 100 square meters. The average surface area of the housing units in Nabatyye is estimated at 123 square meters, which is almost

equivalent to the National average area. The lowest average surface area of housing units observed in any Qada in Nabatyie is in Bent-Jbayl with an average of 112 square meters and the highest is in the Qada of Marjyun with an average of 140 square meters.

In the Mohafazat of Nabatyie, 22% of housing units consist of four rooms, 64% have less than four rooms and 12% have more than four rooms. The average number of rooms per residence is 3.17 which is 12% lower than the national average, and varies from one Qada to the other from 3.40 in Marjyun to 2.94 in Bent-Jbayl.

#### 1.4.2 Extent of Utilities

The main utilities that one can find in a housing unit in Lebanon are the toilet, the bath, the kitchen, the heating system and the elevator. The following paragraphs shall discuss the availability of each of these utilities in the main residences.

##### 1.4.2.1 Kitchen and utility room

Almost all the housing units are equipped with a kitchen, while only less than 1% do not have a kitchen or a utility room. The following table indicates the number of housing units fitted with utility rooms and kitchens all over Lebanon.

Utility Rooms	0	1	2	3	4	> 5	Total
Number	2,723	20,354	548,195	192,138	20,195	9,135	792,740
Percentage	0.34%	2.57%	69.15%	24.24%	2.55%	1.15%	100%

According to the figures presented above, almost 69% of housing units have a kitchen and an additional utility room and 28% have more than two utility rooms as well as a kitchen.

##### 1.4.2.2 Toilet

The following table indicates the distribution of a number of housing units equipped with a toilet by Mohafazat.

Mohafazat	Non- existent	Private	Shared	Total
Beirut	0.13%	99.08%	0.79%	109,765
Mount-Lebanon	1.91%	93.23%	4.86%	324,060
North	6.34%	90.64%	3.02%	130,373
El-Bekaa	2.94%	95.61%	1.44%	98,676
South	0.11%	99.37%	0.52%	79,865
Nabatyie	0.45%	98.66%	0.83%	50,002
Total	2.25%	94.87%	2.88%	792,740

Almost all over Lebanon the housing units with more than two rooms have a toilet. 95% have their private toilet, 3% have a shared toilet and only 2% do not have any toilet.

In the Mohafazat of Beirut, 99% have a private toilet, 0.8% have a shared toilet and only 0.1% do not have a toilet. These ratios are almost the same as the proportions that are observed in the South and Nabatyie.

The highest proportion of housing units with no toilet is observed in the North, representing 6.5% of the residences in that Mohafazat. In the Mohafazat of Mount-Lebanon 2% do not have a toilet and in the Mohafazat of El-Bekaa 3% do not have a toilet.

##### 1.4.2.3 Bathroom

The following table indicates the number of residences which are equipped with a bathroom by Mohafazat.

Mohafazat	Non- existent	Private	Shared	Total
Beirut	1.72%	97.49%	0.79%	109,765
Mount-Lebanon	13.33%	80.58%	6.09%	324,060
North	5.89%	84.25%	9.86%	130,373
El-Bekaa	29.98%	68.78%	1.25%	98,676
South	3.51%	95.85%	0.64%	79,865
Nabatyie	3.84%	95.10%	1.06%	50,002
Total	10.98%	84.51%	4.51%	792,740







**DISTRIBUTION OF THE BUILDINGS ACCORDING TO THE PLACE OF  
RESIDENCE AND TO THE EXISTENCE OF AN ELEVATOR**

Mohafazat	Existent	Non existent	(blank)	Total
BEIRUT	5,886	7,650	90	13,626
% of row	43.20%	56.14%	0.66%	100.00%
MOUNT LEBANON	18,901	123,840	129	142,871
% of row	13.23%	86.68%	0.09%	100.00%
NORTH LEBANON	1,977	78,664	223	80,865
% of row	2.40%	97.26%	0.28%	100.00%
EL-BEKAA	1,097	65,527	24	66,648
% of row	1.65%	98.32%	0.04%	100.00%
SOUTH LEBANON	2,279	45,587		47,866
% of row	4.76%	95.24%	0.00%	100.00%
NABATYYE	317	37,735		38,052
% of row	0.83%	99.17%	0.00%	100.00%
<b>ALL LEBANON</b>	<b>30,476</b>	<b>358,985</b>	<b>466</b>	<b>389,927</b>
<b>% of row</b>	<b>7.82%</b>	<b>92.06%</b>	<b>0.12%</b>	<b>100.00%</b>

Only 8% of the buildings are equipped with an elevator.

In the Mohafazat of Beirut, 43% of buildings have an elevator. This proportion is much higher than in the other Mohafazats, which can be explained by the fact that the buildings in Beirut are high rise, i.e. exceed four floors. This makes the existence of an elevator necessary.

## 1.5 SERVICE FACILITIES FOR RESIDENCES

### 1.5.1 Drinking water

Eleven per cent of the residences are not connected to any drinking water network. This percentage has decreased considerably compared to the 17% registered in 1970.

Beirut has the lowest percentage of residences lacking drinking water. This can be explained by the fact that the drinking water network is well developed in the capital and consequently residences can be easily connected to it.

#### DISTRIBUTION OF RESIDENCES ACCORDING TO THE PLACE OF RESIDENCE AND TO THE EXISTENCE OF DRINKING WATER NETWORK

Mohafazat	1997				1970			
	NO	YES	(blank)	Total	NO	YES	(blank)	Total
BEIRUT	1,160	108,460	145	109,765	5,595	89,940	75	95,610
% of row	1.1%	98.8%	0.1%	100.0%	5.9%	94.1%	0.1%	100.0%
MOUNT LEBANON	30,131	293,929		324,060	16,215	139,920	330	156,465
% of row	9.3%	90.7%	0.0%	100.0%	10.4%	89.4%	0.2%	100.0%
NORTH LEBANON	34,768	95,280	325	130,373	19,560	43,605	180	63,345
% of row	26.7%	73.1%	0.2%	100.0%	30.9%	68.8%	0.3%	100.0%
EL-BEKAA	13,052	85,511	112	98,676	8,445	27,360	90	35,895
% of row	13.2%	86.7%	0.1%	100.0%	23.5%	76.2%	0.3%	100.0%
SOUTH (with NABATYYE)	7,862	121,946	59	129,867	18,045	26,070	390	44,505
% of row	6.1%	93.9%	0.0%	100.0%	40.5%	58.6%	0.9%	100.0%
<b>ALL LEBANON</b>	<b>86,973</b>	<b>705,126</b>	<b>642</b>	<b>792,740</b>	<b>67,860</b>	<b>326,895</b>	<b>1,065</b>	<b>395,820</b>
% of row	<b>11.0%</b>	<b>88.9%</b>	<b>0.1%</b>	<b>100.0%</b>	<b>17.1%</b>	<b>82.6%</b>	<b>0.3%</b>	<b>100.0%</b>

In addition, the highest percentage of residences not connected to a network is observed in the North where in 1997, 27% of the residences are not connected to any drinking water network. This can be explained by the fact, that the North is essentially known as a rural area and therefore, the infrastructure in that region is not as developed as the network in the capital. The high percentage is essentially due to the Qada of Akkar where 57% are not connected and El-Meniye where 46% of the residences are not connected.

In the Bekaa, another rural region, 13% of the residences have no drinking water, this percentage is even higher for the Qada of Baalbek 18% and El-Hermel 37%.

### 1.5.2 Sewage Network

In Lebanon and in general, almost half of the residences are connected to the public sewage network and half of the residences have a septic tank, which means that the sewage network is not very well developed in Lebanon, especially in the areas which were constructed during the war, and in the villages. As a matter of fact, the disparity between the different Mohafazats which are connected to the public network and the Mohafazats which are not is very high.

For example in Beirut almost all the residences are connected to the public network, (98%), but in Nabatyye only 15% are. This could be explained by the fact that, in Beirut, the sewage network is very well developed and on the contrary in the villages there are no sewage networks and therefore, the residences have their own sewage system. In the Qada of Bsharre less than 1% are connected to the public network which implies that there is no sewage network in that Qada. A similar case is observed in Jbayl (3%), Al-Batrun (3%) and Rashayya (3%).

#### DISTRIBUTION OF MAIN RESIDENCES ACCORDING TO THE PLACE OF RESIDENCE AND TO THE TYPE OF THE SEWAGE DISPOSAL

Place of residence	Public sewer network	Septic tank	Other	(blank)	Total
BEIRUT	107735	1160	580	290	109765
% of row	98.2%	1.1%	0.5%	0.3%	100.0%
MOUNT LEBANON	195429	127392	1177	62	324060
% of row	60.3%	39.3%	0.4%	0.0%	100.0%
NORTH LEBANON	65589	60125	4245	413	130373
% of row	50.3%	46.1%	3.3%	0.3%	100.0%
EL-BEKAA	41911	52624	4028	112	98676
% of row	42.5%	53.3%	4.1%	0.1%	100.0%
SOUTH LEBANON	26709	52651	506		79865
% of row	33.4%	65.9%	0.6%	0.0%	100.0%
NABATYYE	7684	42197	122		50002
% of row	15.4%	84.4%	0.2%	0.0%	100.0%
<b>ALL LEBANON</b>	<b>445056</b>	<b>336149</b>	<b>10658</b>	<b>878</b>	<b>792740</b>
% of row	<b>56.1%</b>	<b>42.4%</b>	<b>1.3%</b>	<b>0.1%</b>	<b>100.0%</b>

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Compared to 1970, the number of villages connected to the electricity grid has increased considerably as the percentage of residences that have no electricity was halved (6.6% to 3.2%) between 1970 and 1997.

#### 1.5.4 Telephones

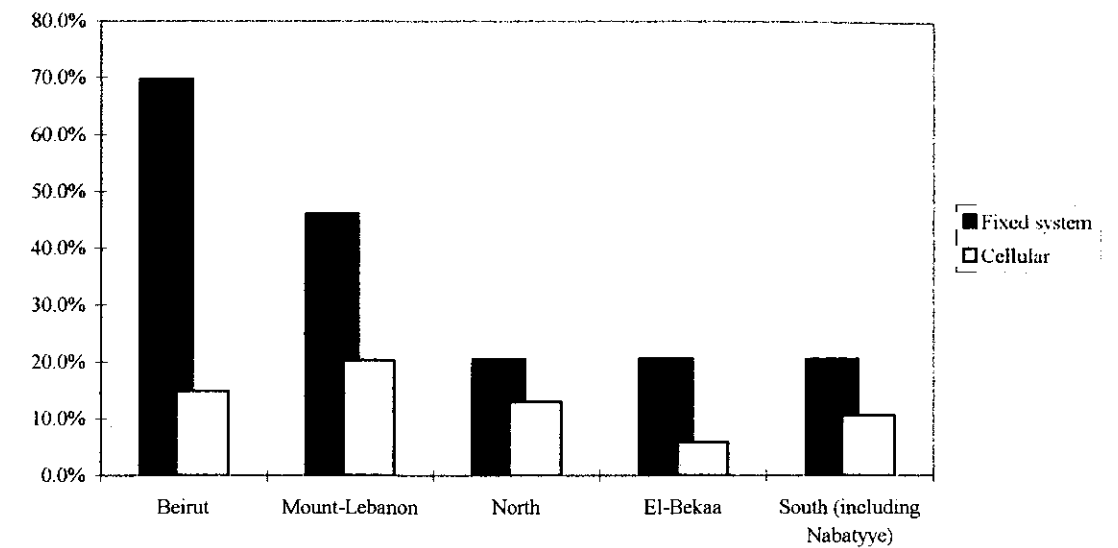
##### 1.5.4.1 Fixed System Phone Lines

In Lebanon, unlike the other public services, only 38% of the residences are equipped with a phone line. This can be explained by the fact that the phone network is not as developed as the electricity or the water networks. In addition, the installation of a phone line is very expensive, which explains the fact that the low income category of people lacks access to a phone line.

#### DISTRIBUTION OF RESIDENCES ACCORDING TO THE PLACE OF RESIDENCE AND TO THE EXISTENCE OF A PHONE LINE

Place of residence	1997				1970			
	NO	YES	(blank)	Total	NO	YES	(blank)	Total
BEIRUT	33060	76560	145	109765	57270	38190	150	95610
% of row	30.1%	69.7%	0.1%	100.0%	59.9%	39.9%	0.2%	100.0%
MOUNT LEBANON	174722	149338		324060	131595	24450	420	156465
% of row	53.9%	46.1%	0.0%	100.0%	84.1%	15.6%	0.3%	100.0%
NORTH LEBANON	103330	26786	256	130373	55680	7440	225	63345
% of row	79.3%	20.5%	0.2%	100.0%	87.9%	11.7%	0.4%	100.0%
EL-BEKAA	78154	20410	112	98676	32925	2715	255	35895
% of row	79.2%	20.7%	0.1%	100.0%	91.7%	7.6%	0.7%	100.0%
SOUTH LEBANON	103093	26774		129867	41760	2565	180	44505
% of row	79.4%	20.6%	0.0%	100.0%	93.8%	5.8%	0.4%	100.0%
<b>ALL LEBANON</b>	<b>492359</b>	<b>299868</b>	<b>514</b>	<b>792740</b>	<b>319230</b>	<b>75360</b>	<b>1230</b>	<b>395820</b>
% of row	<b>62.1%</b>	<b>37.8%</b>	<b>0.1%</b>	<b>100.0%</b>	<b>80.7%</b>	<b>19.0%</b>	<b>0.3%</b>	<b>100.0%</b>

Distribution of households by type of telephone



In the Mohafazat of Beirut, the proportion is reversed, as only 30% of the residences have no phone connection and 70% do. When moving away from the cities, the proportion of connected residences will decrease considerably. In some rural villages or Qadas, less than 6% of the residences are connected to a phone as it is the case in Alay and Sour.

Even if in 1997 more than 60% of residences were not connected to a phone line, this percentage improved considerably compared to the figures registered in 1970, where more than 80% of the residences were not connected to any phone line. This improvement is mainly due to the expansion of the phone network all over the country and more specifically in Beirut and the Mount Lebanon. However, experts predict an increase of the proportion of residences connected to a phone network as new lines are again available at reasonable prices on the market and in most of the regions of the country.

#### 1.5.4.2 Cellular Phones

With the introduction of new technologies, there is now in Lebanon a new telephone network called GSM. This system will allow a greater number of people to have access to a phone line.

But because of the very high cost of those cellular phones, only 15% of the households have a cellular phone line and most of them are located in Beirut and Mount Lebanon. In areas where the network is not well developed, this percentage is much lower, as is the case in Nabatyee and the Bekaa.

**DISTRIBUTION OF RESIDENCES ACCORDING TO THE PLACE OF RESIDENCE AND TO THE EXISTENCE OF A CELLULAR PHONE**

Place of residence	NO	YES	(blank)	Total
BEIRUT	93090	16385	290	109765
% of row	84.8%	14.9%	0.2%	100.0%
MOUNT LEBANON	258045	65952	62	324060
% of row	79.6%	20.3%	0.0%	100.0%
NORTH LEBANON	113056	17012	304	130373
% of row	86.7%	13.0%	0.2%	100.0%
EL-BEKAA	92719	5844	112	98676
% of row	93.9%	5.9%	0.1%	100.0%
SOUTH LEBANON	68351	11514		79865
% of row	85.5%	14.4%	0.0%	100.0%
NABATYYE	47667	2336		50002
% of row	95.3%	4.6%	0.0%	100.0%
<b>ALL LEBANON</b>	<b>672928</b>	<b>119043</b>	<b>769</b>	<b>792740</b>
% of row	<b>84.8%</b>	<b>15.0%</b>	<b>0.1%</b>	<b>100.0%</b>

**1.5.5 Garbage collection**

In general the Municipality is in charge of garbage collection in Lebanon, which explains the fact that almost 70% of the garbage is collected by the Municipality. But in some villages or urbanised areas the municipality lacks the financial and technical means to collect the garbage. Therefore, private companies have been established in order to collect the garbage in regions where the Municipalities cannot manage the service.

**DISTRIBUTION OF RESIDENCES ACCORDING TO THE PLACE OF RESIDENCE AND TO THE MEANS OF THE GARBAGE COLLECTION**

Place of residence	Municipality	Private company	Others	(blank)	Total
BEIRUT	94105	435	14935	290	109765
% of row	85.7%	0.4%	13.6%	0.3%	100.0%
MOUNT LEBANON	243323	30507	50167	62	324060
% of row	75.1%	9.4%	15.5%	0.0%	100.0%
NORTH LEBANON	76838	7245	45781	509	130373
% of row	58.9%	5.6%	35.1%	0.4%	100.0%
EL-BEKAA	49560	17778	31169	169	98676
% of row	50.2%	18.0%	31.6%	0.2%	100.0%
SOUTH LEBANON	47479	843	31542		79865
% of row	59.4%	1.1%	39.5%	0.0%	100.0%
NABATYYE	30738	1216	18049		50002
% of row	61.5%	2.4%	36.1%	0.0%	100.0%
<b>ALL LEBANON</b>	<b>542044</b>	<b>58025</b>	<b>191643</b>	<b>1030</b>	<b>792740</b>
% of row	<b>68.4%</b>	<b>7.3%</b>	<b>24.2%</b>	<b>0.1%</b>	<b>100.0%</b>

In Greater Beirut, the Municipality has limited the collection and the treatment of garbage under its supervision to a private company named Sukleen. This can



explain the very high percentages observed in Beirut and the Mount Lebanon. Meanwhile, in the Bekaa only 50% of the garbage is collected by the Municipality and in the Qada of Baalbek only 40% is collected by the Municipality.

In the Qada of Bsharre for example, the Municipality has no garbage collection service; each individual must take his own garbage and deposit it into a dump.

## 1.6 AVERAGE OCCUPANCY RATE PER RESIDENCE AND THE AVERAGE HOUSEHOLD

During the past three decades, the average number of persons per household has sensibly diminished in Lebanon, when at the same time we have witnessed an increase in the residences' area and number of rooms.

### 1.6.1 *The average number of persons per household*

The average occupancy rate per residence was of 4.83 persons for the entire country in September 1997. This average was equal to 5.36 in 1970.

### DISTRIBUTION OF THE AVERAGE HOUSEHOLD SIZE

PLACE OF RESIDENCE	Number of main residences (1)	Population (2)	Average size of the household =2/1
<b>BEIRUT</b>	<b>109,765</b>	<b>485,750</b>	<b>4.43</b>
<b>MOUNT LEBANON</b>	<b>324,060</b>	<b>1,477,883</b>	<b>4.56</b>
BAABDA	101,641	478,933	4.71
EL-MATEN	98,750	437,875	4.43
EL-SHUF	31,920	143,868	4.51
ALAY	36,344	166,551	4.58
KESRWAN	38,937	172,916	4.44
JBAYL	16,468	77,740	4.72
<b>NORTH LEBANON</b>	<b>130,373</b>	<b>718,596</b>	<b>5.51</b>
TRIPOLI	46,575	272,813	5.86
EL-KURA	10,279	46,299	4.50
ZGHORTA	11,169	51,173	4.58
EL-BATRUN	9,875	47,837	4.84
AKKAR	31,327	195,719	6.25
BSHARRE	4,966	18,209	3.67
EL-MENIYE	16,182	86,546	5.35
<b>BEKAA</b>	<b>98,676</b>	<b>518,550</b>	<b>5.26</b>
ZAHLE	35,056	167,930	4.79
WEST BEKAA	11,774	55,573	4.72
BAALBEK	39,767	233,260	5.87
EL-HERMEL	6,120	34,033	5.56
RASHAYYA	5,959	27,753	4.66
<b>SOUTH LEBANON</b>	<b>79,865</b>	<b>397,322</b>	<b>4.97</b>
SAYDA	44,120	222,539	5.04
SOUR	29,067	148,889	5.12
JEZZIN	6,678	25,894	3.88
<b>NABATYYE</b>	<b>50,002</b>	<b>232,268</b>	<b>4.65</b>
EL-NABATYYE	22,397	106,104	4.74
BENT-JBAYL	12,956	60,787	4.69
MARJ'AYUN	9,833	45,004	4.58
HASBAYYA	4,817	20,372	4.23
<b>TOTAL</b>	<b>792,740</b>	<b>3,830,369</b>	<b>4.83</b>

### 1.6.2 *The average occupancy rate per room*

This relaxation at the level of the average occupancy rate is accompanied with a tangible increase of apartments' size. Thus the one room lodgings represent in 1997 4.2% of the total dwellings and host only 3.3% of the population. In 1970, 15.1% of the households used to live in 1 room apartments, i.e. 12.1% of the population. The average occupancy rate of the one room lodgings was of 4.31 persons, when it is today of 3.77 individuals.

#### 1.6.2.1 *Density per room*

The same findings were obtained for the 2 room dwellings, where the average per room equals today 2.37 persons, compared to 2.66 in 1970. At that time 24.2% of the lodgings were made up of 2 rooms and hosted 24% of the population. Today, the two rooms dwellings represent only 20% of the total lodgings and host 19.6% of the population.

In 1997, the three rooms dwellings represent 26.5% of the total lodgings and host the same proportion of the population. Both these proportions were respectively, in 1970, 22.7% and 24%.

#### AVERAGE OCCUPANCY RATE BY ROOM AND PLACE OF RESIDENCE

PLACE OF RESIDENCE	Data	NUMBER OF ROOMS							Total
		1	2	3	4	5	6	7 & above	
BEIRUT	% of Population	4.7%	18.4%	21.5%	24.6%	19.4%	7.3%	4.1%	485,750
	% of Households	6.3%	18.1%	21.5%	24.4%	19.0%	6.5%	4.0%	109,765
	Average person/room	3.29	2.24	1.47	1.11	0.90	0.83	1.62	1.20
MOUNT LEBANON	% of Population	3.3%	22.0%	23.6%	25.2%	17.4%	6.1%	2.3%	1,477,884
	% of Households	4.2%	22.2%	23.6%	24.8%	17.3%	5.7%	2.2%	324,060
	Average person/room	3.61	2.28	1.53	1.16	0.92	0.82	1.80	1.28
NORTH	% of Population	2.0%	13.7%	30.1%	27.6%	16.4%	6.8%	3.2%	718,596
	% of Households	2.3%	13.7%	30.5%	27.6%	15.3%	6.8%	3.4%	130,373
	Average person/room	4.78	2.76	1.81	1.38	1.18	0.92	1.93	1.46
BEKAA	% of Population	3.3%	20.6%	30.7%	26.5%	13.9%	3.5%	1.5%	518,550
	% of Households	3.9%	21.1%	31.3%	25.2%	13.2%	3.8%	1.6%	98,676
	Average person/room	4.49	2.61	1.74	1.40	1.13	0.84	1.93	1.54
SOUTH	% of Population	3.1%	18.7%	28.2%	24.4%	15.2%	7.4%	3.0%	397,322
	% of Households	4.0%	19.6%	28.0%	23.5%	14.7%	7.3%	3.0%	79,865
	Average person/room	3.93	2.39	1.68	1.30	1.03	0.85	1.83	1.37
NABATYEE	% of Population	4.5%	23.4%	33.1%	23.9%	11.8%	1.8%	1.4%	232,268
	% of Households	6.0%	25.2%	32.8%	22.1%	10.8%	1.8%	1.1%	50,002
	Average person/room	3.49	2.16	1.56	1.26	1.02	0.80	2.08	1.47
LEBANON	% of Population	3.3%	19.6%	26.6%	25.6%	16.4%	5.9%	2.6%	3,830,370
	% of Households	4.2%	20.0%	26.5%	25.0%	16.1%	5.7%	2.6%	792,740
	Average person/room	3.77	2.37	1.62	1.24	0.99	0.85	1.82	1.35

About 62% of the dwellings were one, two or three rooms dwellings. In 1997, 50% of the houses are classified in these three categories and host 50% of the population.

Finally we note that 25% of the lodgings are made of four rooms and 16.1% are of five rooms, when this proportion was respectively of 9.6% and 16.5% in 1970.

Important discrepancies are noted from one region to the other. The proportion of small apartments rises tangibly in the urban regions and not in the poor rural areas. About 6.3% of the Beirut residences, 5.3% of those in Metn and 4.3% of those in Tripoli are made up of one room, when this proportion is about 1% for the regions of Akkar.

By Mohafazat, Beirut and Nabatyee entail the biggest proportion of one room apartments, i.e. about 6%. For the North this proportion falls to 2.3%, However, in terms of this unique room's occupancy rate, only 3.29 persons are counted in Beirut, compared to 4.78 in the North, 3.61 in Mount-Lebanon, 3.93 in the South and only 3.49 in Nabatyee. The migration of this region's inhabitants, always under the military tension, explains the fall of this rate.

The average per room for the entire country is of 1.35 persons, with a minimum of 1.20 and 1.28 in Beirut and Mount Lebanon respectively, and 1.54 in the Bekaa and 1.47 in Nabatyee.

#### Criteria for the definition of population density in the residences according to the number of rooms (number of residents in the household)

Number of rooms in the residence	Highly underpopulated	Underpopulated	Normally populated	Temporarily acceptable	Critical
1	-	-	1	2	3 & more
2	1	-	2	3	4 & more
3	1	-	2 - 4	5	6 & more
4	1	2 - 3	4 - 6	7	8 & more
5	1 - 3	4 - 5	6 - 8	9 & more	-
6	1 - 5	6 - 7	8 & more	-	-
7 and above	1 - 7	8 - 9	10 & more	-	-

**Density of population in the main residences in 1970 (all of Lebanon)***Number of residences*

Number of rooms in the residence	Highly underpopulated	Under-populated	Normally populated	Temporarily acceptable	Critical	Undetermined	Total
1	—	—	2.9%	2.7%	9.5%	—	15.1%
2	1.5%	—	3.3%	2.5%	16.8%	—	24.2%
3	1.0%	0.0%	7.3%	3.1%	11.2%	—	22.7%
4	0.6%	4.2%	5.9%	2.1%	4.3%	—	19.7%
5	2.4%	3.1%	3.5%	1.5%	—	—	10.5%
6	2.2%	1.1%	1.0%	—	—	—	4.2%
7 & more	2.2%	0.4%	0.3%	—	—	—	2.8%
Undetermined	—	—	—	—	—	0.2%	0.9%
<b>Total</b>	<b>9.9%</b>	<b>8.8%</b>	<b>26.5%</b>	<b>11.9%</b>	<b>41.9%</b>	<b>1.0%</b>	<b>100.0%</b>

Source : Survey on the active population in Lebanon, November 1970, Central Department for Statistics, July 1972.

*Number of residents*

Number of rooms in the residence	Highly underpopulated	Under-populated	Normally populated	Temporarily acceptable	Critical	Undetermined	Total
1	—	—	0.5%	1.0%	10.6%	—	12.1%
2	0.3%	—	1.2%	1.4%	21.0%	—	24.0%
3	0.2%	—	4.2%	2.9%	16.7%	—	24.0%
4	0.1%	2.0%	7.8%	2.8%	7.8%	—	20.5%
5	1.1%	2.6%	4.4%	2.9%	—	—	11.0%
6	1.5%	1.3%	1.7%	0.0%	—	—	4.5%
7 & more	1.9%	0.5%	0.7%	0.0%	—	—	3.1%
Undetermined	—	—	—	—	—	0.9%	0.9%
<b>Total</b>	<b>5.0%</b>	<b>6.5%</b>	<b>20.5%</b>	<b>11.0%</b>	<b>56.1%</b>	<b>1.0%</b>	<b>100.0%</b>

Source : Survey on the active population in Lebanon, November 1970, Central Department for Statistics, July 1972.

**Density of population in the main residences in 1997 (all of Lebanon)***Number of residences*

Number of rooms in the residence	Highly underpopulated	Under-populated	Normally populated	Temporarily acceptable	Critical	Total
1	—	—	—	—	4.2%	4.2%
2	—	—	—	20.0%	—	20.0%
3	—	—	26.5%	—	—	26.5%
4	—	25.0%	—	—	—	25.0%
5	16.1%	—	—	—	—	16.1%
6	5.7%	—	—	—	—	5.7%
7 & more	2.5%	—	—	—	—	2.5%
<b>Total</b>	<b>24.3%</b>	<b>25.0%</b>	<b>26.5%</b>	<b>20.0%</b>	<b>4.2%</b>	<b>100.0%</b>

*Number of residents*

Number of rooms in the residence	Highly underpopulated	Under-populated	Normally populated	Temporarily acceptable	Critical	Total
1	—	—	—	—	3.3%	3.3%
2	—	—	—	19.6%	—	19.6%
3	—	—	26.6%	—	—	26.6%
4	—	25.6%	—	—	—	25.6%
5	16.4%	—	—	—	—	16.4%
6	5.9%	—	—	—	—	5.9%
7 & more	2.6%	—	—	—	—	2.6%
<b>Total</b>	<b>24.9%</b>	<b>25.6%</b>	<b>26.6%</b>	<b>19.6%</b>	<b>3.3%</b>	<b>100.0%</b>

**1.6.2.2 Density per household**

For the density per household, we note that 17.9% of the families living in a one-room lodging are households made up of one person, 15% are made up of two persons, 19% of three persons and 15% of four persons. On the contrary 18% of the one person households live in a one room dwelling, 24% in two rooms and 28% in three rooms.

If we take into consideration the households made up of four persons we notice that 3% of them live in a one-room lodging, 20% live in two rooms, 24% in three rooms, 26% in four rooms and 18% in five rooms.

These averages point out a clear improvement compared to the findings of 1970.

**1.6.3 The density per area**

In terms of area, we note that less than 7.9% of the Lebanese residences are smaller than 50 m<sup>2</sup>, 31.6% are between 50 and 100 m<sup>2</sup>, 34% are between 100 and 150m<sup>2</sup> and 18% between 150 and 200m<sup>2</sup>.

For the density per area, we note that 7% of the population live in an average of 8.15m<sup>2</sup> per person, 31% live in an average area of 15.9m<sup>2</sup> and 35% in an average of 25.4m<sup>2</sup>.

The global average of Lebanon would be about 25 m<sup>2</sup> per person. In 1970 this average was nearly 18m<sup>2</sup> per person.

## DISTRIBUTION OF THE DENSITY PER AREA

Area	Residences		Population		Sq m. /person
	Total	% of residences	Total	% of population	
1 ]0-50]	62,359	7.9%	267,890	7.0%	8.15
2 ]50-100]	250,627	31.6%	1,184,979	30.9%	15.86
3 ]100-150]	270,718	34.1%	1,330,804	34.7%	25.43
4 ]150-200]	143,853	18.1%	719,258	18.8%	35.00
5 ]200-250]	41,020	5.2%	204,248	5.3%	45.19
6 ]250-....]	21,839	2.8%	111,436	2.9%	58.79
(blank)	2,325	0.3%	11,754	0.3%	-
<b>Total</b>	<b>792,740</b>	<b>100.0%</b>	<b>3,830,368</b>	<b>100.0%</b>	<b>32.25</b>

In 1970, about 17.7% of the residences were smaller than 30m<sup>2</sup>, a number to be compared to today's 7.9% of less than 50m<sup>2</sup>. These dwellings hosted at that time 14.8% of the population compared to 7% for today.

Consequently, the average area per person for those living in a one room dwelling was of 5 square meters, that of the households living in between 30 and 80m<sup>2</sup> was of 10 m<sup>2</sup> per person. For this second category the average is today of 15.9m<sup>2</sup> per person.

A double explanation exists for this evolution: a regression of the size of the household and an increase in the built area. In the urban regions the small size of the household is at the origin of this relaxation, when for the rural areas the improvement of the occupancy rate is linked to the progression of the apartments' average size.

#### 1.6.4 *Size of the apartments*

At the level of the size of the apartments, we note that the building dating back to the fifties, sixties and seventies were made up of smaller units than those built in the nineties.

Thus 25% to 30% of the apartments built between 1923 and 1987 had an average area ranging between 50 and 100m<sup>2</sup>. This rate is around 20% in the nineties. For the dwellings bigger than 200m<sup>2</sup>, we note that for the period preceding 1975 the proportion of these units did not exceed the 8% ceiling. In the 1990s this rate varies between 15% and 20%.

DISTRIBUTION OF THE HOUSEHOLDS BY RESIDENCE AREA (M<sup>2</sup>) AND NUMBER OF MEMBERS

Total number of members	AREA							Total
	]0-50]	]50-100]	]100-150]	]150-200]	]200-250]	]250-....]	(blank)	
1 Households	11.7%	5.2%	2.9%	2.3%	1.7%	4.2%	0.0%	4.2%
1 Population	2.7%	1.1%	0.6%	0.5%	0.3%	0.8%	0.0%	0.9%
2 Households	13.2%	12.5%	9.9%	11.1%	8.5%	7.5%	2.2%	11.0%
2 Population	6.2%	5.3%	4.0%	4.4%	3.4%	3.0%	0.9%	4.6%
3 Households	17.7%	12.2%	12.4%	10.3%	14.3%	8.4%	16.5%	12.4%
3 Population	12.4%	7.8%	7.5%	6.2%	8.6%	4.9%	9.8%	7.7%
4 Households	13.8%	18.6%	19.6%	19.6%	20.0%	16.0%	31.5%	18.8%
4 Population	12.8%	15.7%	16.0%	15.7%	16.1%	12.6%	24.9%	15.6%
5 Households	16.3%	18.4%	21.5%	19.2%	20.4%	27.0%	21.9%	19.8%
5 Population	19.0%	19.5%	21.8%	19.2%	20.5%	26.5%	21.6%	20.5%
6 Households	10.1%	14.9%	13.6%	15.8%	15.0%	17.9%	9.6%	14.3%
6 Population	14.1%	18.9%	16.7%	19.0%	18.1%	21.0%	11.4%	17.8%
7 Households	7.3%	7.2%	8.6%	9.8%	9.7%	6.4%	5.0%	8.2%
7 Population	12.0%	10.7%	12.2%	13.7%	13.6%	8.8%	7.0%	12.0%
8 Households	3.4%	4.6%	5.1%	5.6%	3.7%	5.4%	3.2%	4.8%
8 Population	6.4%	7.7%	8.3%	8.9%	5.9%	8.5%	5.1%	8.0%
9 Households	3.4%	2.8%	3.0%	2.8%	1.9%	2.1%	5.4%	2.9%
9 Population	7.2%	5.4%	5.5%	5.0%	3.4%	3.7%	9.7%	5.3%
10+ Households	2.9%	3.5%	3.5%	3.5%	4.7%	4.9%	4.6%	3.6%
10+ Population	7.2%	7.9%	7.4%	7.4%	10.0%	10.2%	9.6%	7.8%
Total Households	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total Population	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

These observations are even more clear in the rural areas. This finding could somehow be surprising due to the natural tendency for the reduction of the urban dwellings' areas. In fact, the case of Beirut is particular, on one hand due to the slow down of the construction activities during the long years of war and on the other hand due to a real estate boom in the capital which with the return of the calm has become the residential area of the well to do, who are demanding areas tangibly bigger than those of the medium income brackets' households.

## 1.7 ELECTRICITY AND TELEPHONE NETWORKS, WATER SUPPLY, SEWAGE DISPOSAL AND GARBAGE COLLECTION

### 1.7.1 Electricity network

#### 1.7.1.1 Production and consumption

Lebanon counts 800,000 subscribers, and the distribution network covers the near-totality of the national territory (around only 3% of main residences do not have power).

The fighting over the 1975-1991 period, as well as the Israeli aggression of April 1996, wrecked the biggest part of power generating plants as well as a significant share of the electricity network.

During the war, the population suffered continuously from power supply rationing, and often stayed for several days without any electric current.

Even today, all regions suffer from rationing, although not to the extent of what was undergone by the population during the conflict.

The average consumption of electricity per inhabitant is around 2,000 kWh. This consumption average is higher than that of countries comparable to Lebanon in terms of GDP. This high level of consumption is due mainly to the relatively low rates that were previously in application, and by the illegal connections on the network.

Although theft of electric power was a very common phenomenon during the war, due to lack of control, important efforts have been made to limit illegal connections.

Theft of current was around 25 % in 1996, as compared to 45 % in 1994.

Electricity consumption in 1993 was distributed at the rate of 38% for households, 17% for the service industries sector, and 26% for industry. The balance is distributed among the other sectors and technical wastage.

The evolution of supply and demand was such that demand kept increasing, whereas supply was drastically affected by the war. A gap lies, therefore, between the needs of the population and the production and distribution potential.

In 1995, the deficit of supply in relation to demand was around 42%. The significant increase in production (by 32%) has enabled the reduction of this disparity to 27%. Demand increases at the rate of 10% annually. Daily production of electricity is currently around 22 Mwh.

### 1.7.1.2 Electrical installations

#### Distribution of the electrical energy production plants in megawatt capacity

Production plants	Power Installed	Available Capacity		
		in 1993	April 1995	January 1997
Zouk	771	370	440	620
Jiyeh	331	130	140	280
Al Safa	13	0	5	5
Kadisha-Hreiché**	172	60	20*	75
Tyre	70	-----	-----	70
Baalbeck	70	-----	-----	65
<b>Total of the EDL</b>	<b>1427</b>	<b>560</b>	<b>605</b>	<b>1115</b>
Litani	190	90	100	100
Nahr Ibrahim***	32	0	25	10
Nahr Al Bared***	17	0	10	5
<b>Total excluding EDL</b>	<b>239</b>	<b>90</b>	<b>135</b>	<b>115</b>
<b>Total</b>	<b>1666</b>	<b>650</b>	<b>740</b>	<b>1230</b>

Source: National control and "dispatching" command at the Electricité du Liban (EDL).

Power installations in Lebanon have a nominal power of 1666 MW, and 264 of them are of hydraulic origin and 1402 are of thermal origin.

The latter are distributed among the three power plants of Zouk, Jiyeh and Hreiché, to which should be added the new gas turbines installed in Baalbeck and Tyre. These turbines were installed in the summer of 1996.

As for the hydraulic plants, they are five: Litani, Kadisha, Rechmaya, Nahr Ibrahim and Bared.

After the war, Lebanon had 1350 MW of power installed (a mixture of thermal and hydroelectric production). As for the production that was in actually available in 1992, it revolved around 600 MW, following the major damages which affected the electrical installations and the distribution networks; leading to the rationing of energy distribution to the consumer.

In order to ensure an uninterrupted electricity supply to all regions, the government is proceeding with a huge programme of rehabilitation of power plants (priority stage) and with the expansion of the electrical network (in a following stage).

\*\* Kadisha was recently purchased by the State.

\* Of which 10 MW of the hydraulic plants.

\*\*\* An increase of available capacity is expected in these hydraulic plants for the months of February, March, April, May 97. The capacity of the Bared will attain 10 MW and that of Nahr Ibrahim 20 MW.

### Distribution of the EDL network

Plant	1994		1995		Evolution 95/94
	in kwh	in %	in kwh	in %	
Safa	17.4	0.4%	13.2	0.3%	-24.1%
Litani	607.0	13.1%	508.4	9.8%	-16.2%
Nahr Ibrahim	76.6	1.7%	87.0	1.7%	13.6%
Nahr Bared	43.9	0.9%	48.1	0.9%	9.6%
Hreiché	0.9	0.0%	0.6	0.0%	-33.3%
<b>Prod. Hydraulic plants</b>	<b>745.8</b>	<b>16.1%</b>	<b>657.3</b>	<b>12.7%</b>	<b>-11.9%</b>
Jiyeh	1,016.2	22.0%	1,073.9	20.8%	5.7%
Zouk	2,838.7	61.4%	3,083.1	59.7%	8.6%
Turbo-gas	24.3	0.5%	60.6	1.2%	149.4%
Purchase from Syria	----	----	291.8	5.6%	----
<b>Prod. Thermal plants</b>	<b>3,879.2</b>	<b>83.9%</b>	<b>4,509.4</b>	<b>87.3%</b>	<b>16.2%</b>
<b>Total production</b>	<b>4,625.0</b>	<b>100.0%</b>	<b>5,166.7</b>	<b>100.0%</b>	<b>11.7%</b>
Sale to Kadisha	42.8		161.2		276.6%
<b>Distribution of Electricity by the EDL</b>	<b>4,582.2</b>		<b>5,005.5</b>		<b>9.2%</b>

Source: *Electricité du Liban*

#### 1.7.1.3 The rehabilitation and extension programmes

The rehabilitation programme for electricity, which started at the beginning of 1992, foresees a budget of 300 million dollars to restore the production, conveyance and distribution sectors.

The rehabilitation of the electric sector was entrusted to international companies. In parallel, a reorganisation of the structure of the public company Electricité du Liban (EDL) is under way to ensure better productivity.

In the Greater Beirut area, the contractor Clemessy has taken the responsibility for restoring the underground and aerial networks of medium and low voltage, the distribution stations, and the lines linking subscribers. At the end of 1996, the contractor had managed to cover only 50% of the required rehabilitation needs.

Outside Greater Beirut the works have been granted to Bouygues who has also accomplished its obligations as to rehabilitation tasks involving mainly the Mount Lebanon, the Bekaa and South Lebanon.

The EDL has also set up an intervention team which implemented similar works in the North and the Bekaa. The EDL pursues its works as and when the needs arise.

This programme has made it possible to increase electricity distribution capacity to reach up to 1230 MW in January 1997, compared to electricity needs estimated at 1500 MW for the same period.

In addition, the Israeli aggression in April 1996 inflicted heavy damages to the transformation sub-stations of Bsalim and Jamhour which service the Lebanese capital, as well as in the conveyance lines and the internal networks of the South. These stations were restored thanks to a grant from the French government.

Thus, with increasing demand, estimated at 10% annually, it is essential to expand production and transmission capacity. According to the master plan for the energy sector, it will be necessary to have a production and distribution capacity equivalent to 1800 MW by the year 2000.

Within this framework, the government is planning a surplus of electrical energy production of 870 MW with the installation of two combined cycle (gas and fuel) plants, one in Beddawi in the North, and the other in Zahrani in the South. The government has also installed new gas turbines of a global capacity of 140 MW in the plants at Baalbeck and Sour.

#### 1.7.2 The telephone network

##### 1.7.2.1 The fixed system

The Lebanese fixed line system is commonly referred to as PSTN (Public Switched Telephone Network).

Its distribution networks provide the connection between subscribers and their local exchange.

During the war, the telecommunication network was severely damaged. Even the people who were connected to the network could rarely use the phone, partly because of network saturation, but especially due to its deterioration.

The main objective of the government concerned the rehabilitation and extension of telephone exchanges and networks.

It is now proceeding with the implementation of the installation of 1.5 million telephone lines (very high technology exchanges and transmission networks), which will service all the areas of the country.

The result of the works undertaken is a net improvement of the telephone service. This progress is mainly due to the new electronic exchanges that were put in operation, to the replacement of the old analogue exchanges, to the utilisation of new means of transmission, and to the operating of new distribution networks.

The link with the subscribers is made by an autonomous company (OGERO) in co-operation with the Ministry of Posts and Telecommunications.

With respect to the rehabilitation and extension of the fixed telephone network, the main contracts concluded are the following :

- Contracts for switching stations :  
They relate to the supply of new digital exchanges (with a capacity for 976,000 lines) and aim to replace the existing electromechanical exchanges and increase the number of available lines.

The works were entrusted to several foreign telecommunication companies and are nation-wide. The programme for the complete replacement of the mechanical system by an electronic one is nearing completion.

- The rehabilitation and extension of the network :  
The government strategy is to enlarge the transmission and distribution networks even more, in order to attain a capacity of 1.8 million lines and a penetration rate of 30%.
- Rehabilitation and extension of the international connection system :  
Parallel to the installation of ground stations, other contracts have been signed to improve international links, be they telephone links, or technological, such as Lebanon's connection to the world-wide communication network Internet.

The rehabilitation of the fixed system as planned will provide the country with a level of service that is superior to the majority of other medium-income countries.

#### *1.7.2.2 The mobile system*

Parallel to the public investment programme, the participation of the private sector is realised by the setting up of a mobile communication system: the cellular network.

The GSM (Global System for Mobile Communication) represents the new generation of the cellular telephone. From the point of view of operation and installation, this digital system, as opposed to other analogue systems, presents a greater capacity to link subscribers, thus avoiding congestion of the system.

To finance the GSM project, the government chose the BOT (Build Operate and Transfer) formula. According to this procedure, operators supply the funds, execute the works, operate the system and, at the deadline, hand it over to the government. The two private operators are: Telecom Finland International (TFI) represented in Lebanon by LibanCell and France Telecom Mobile Lebanon (FTML).

The duration of this contract is ten years, extendible to 12 years. During the first eight years, the operators will have to pay 20% of their gross revenue to the government and 40% the last two years. The Ministry of Posts and Telecommunications will control, during all the period, the progress and the follow-up of operations.

The total number of subscribers by end 1995, that is the first year of operation, was almost 100,000, for the two cellular companies, France Telecom Mobile Lebanon and Libancell. By end 1996, cellular companies had, together, around 200,000 subscribers.

The current rate of penetration is 6%. This rate is very significant if one compares it to that of industrialised countries, which is around 4% to 5%.

The market studies of these two companies ascertain that nearly 500,000 persons will subscribe from now to the year 2005 or 2007.

The mobile phone's obvious utility is boosted by the non-existence of telephone booths in the country, as well as the irregular area coverage by the stationary network.

Another advantage is related to the optional use of Lebanese lines abroad, within the context of "roaming" agreements. These agreements between the various world operators allow subscribers to use their line in all the countries with which such agreements have been made.

Despite the relatively high cost of owning and using a cellular line, heavy usage of the GSM networks is mainly due to the deficiencies in the stationary system.

At the beginning, each of these two companies covered only around 50% of the Lebanese territory, this rate has increased and has reached 88% in 1996, and is currently above 90%.

The difficulties that these companies face regarding major problems, like inaudible reception and interrupted calls, are mainly due to the fact that more than 70% of subscribers are concentrated on less than 3% of the territory (Greater Beirut). These difficulties might increase because of the constantly growing numbers of new subscribers.

The costs of local telephone calls and monthly subscriptions have more than doubled since the 1st of December 1996. Conversely, international calls were reduced by 10%. Calls on the mobile network also increased in August 1997.

As for optional services related to the stationary network, subscribers should soon benefit from the same services offered by the cellular network, such as call signal, three-caller conference, call divert and call number identification.

The start of operations of the GSM system at the beginning of 1995, run by two private operators, and more recently the granting of permits for the operation of a public transmission network and the commercialisation of access to the Internet network - also assigned to private companies - indicate the general gradual liberalisation of the telecommunications market.

### 1.7.3 *The water network*

Unlike its neighbours, Lebanon does not suffer from any natural water shortage. However, proper distribution and management of the hydraulic resources are essential to preserve the country's richness.

The Mediterranean climate of Lebanon ensures, on average, around 9,400 million cubic meters of rainfall per year. Only 2,500 million are available at the surface. The remainder is wasted, either by evaporation or by subterranean infiltration, or by flowing into neighbouring countries. It is estimated that the usable subterranean water is around 400 million cubic meters.

There are 19 water bureaux and 209 committees responsible for the management of water distribution. These facilities are under the supervision of the Ministry of Hydraulic and Electrical Resources.

The performance of this Ministry has been greatly handicapped by the insufficiency of funds provided by the budget and the weakness of human resources (of the 502 administrative positions, 257 are vacant).

As for infrastructure, 18 treatment stations have been damaged, and are now operating at a very weak level.

The "chlorinating" machines are badly serviced due to the lack of technicians and the necessary funds. Out of 120 treatment units, only 12 are operating at a satisfactory level.

Water rates are relatively low, and cover operating costs only partially, therefore the cost of water should not be, in itself, a reason for staying unconnected to the distribution network.

A qualitative test of the water was conducted in 1990, and showed that more than 80% of the collected samples were polluted. Even the deepest waters (spring water) are exposed to pollution, namely due to inadequate sewage disposal.

Moreover, sewage, wastewater, and polluted subterranean waters often seep into the distribution networks.

The distribution of drinkable tap water to citizens is the responsibility of the Water Bureau which uses meters to measure the amount of water consumed and gauges for the distribution of the quantities depending on the type of subscription.

Well water distribution depends on the EDL capacity to supply electricity, except for some wells that have been equipped with their own generators.

The total capacity of public water tanks in Beirut and its suburbs, from which subscribers are supplied, is 86,750 cubic meters.

The following table shows the distribution of the water tanks currently in service by region:

Area	Number of tanks	Capacity (m <sup>3</sup> )
Ashrafieh	8	28,500
Tallet el-Khayat	2	32,250
Mechref	1	100
Damour	1	500
Naameh	5	11,000
Total	17	72,350

Because of the great constraints affecting this sector, the distribution of water is rationed. Officially, 18 to 22 hours of distribution should take place per 48 hours, 7 months a year (high water level period), and 12 to 16 hours per 48 hours, 5 months a year (low water level period).

Rationing varies according to the degree and length of the dry period. However, the subscribers generally manage to fulfil their daily needs by filling individual tanks, used in case of a water shortage.

The main sources of water pumping, and the available capacities for 1995 are shown in the table below:



Stations	Population (in 000's)	Origin		Qty of water available		Cap. of water production	
		Springs and water currents	Wells	Summer <sup>3</sup> (1m /d)	Winter <sup>3</sup> (1m /d)	Summer <sup>3</sup> (1m /d)	Winter <sup>3</sup> (1m /d)
Beirut	1,200	3	47	207,700	307,700	250,400	675,400
Ain El Delbe	800	2	22	110,600	118,600	128,600	136,600
Kobeyat	66	5	5	6,653	6,653	83,322	133,322
Tripoli	625	23	35	72,450	73,800	86,650	88,000
Nabaa El Kadi	102	52	30	13,522	20,622	15,227	22,515
Nabaa El Ghar	73	5	24	16,965	19,090	14,965	17,090
Batroun	51	4	3	16,000	65,600	16,000	65,600
Jbeil	75	7	5	24,150	47,100	24,150	47,100
Becharre	92	30	1	11,606	12,825	11,606	12,825
	217	8	3	43,700	45,900	123,200	410,900
Kesrouan							
Metn	168	6	-	25,800	38,000	35,000	83,500
Barouk	275	14	41	49,960	49,960	56,560	56,560
Saïda	140	2	8	34,400	49,900	38,100	53,600
Nabaa El Tasset	245	22	44	38,125	44,825	53,803	60,903
Tyre	182	3	35	56,770	56,850	118,570	138,650
Jabal Amel	173	3	5	19,520	21,020	23,520	23,520
Baalbeck-Hermel	350	23	28	20,920	25,750	101,350	546,830
Zahle	250	24	7	35,035	85,485	35,035	85,485
Chemssine	106	5	9	19,360	49,360	19,360	49,360
<b>Total</b>	<b>5,190</b>	<b>241</b>	<b>352</b>	<b>823,236</b>	<b>1,139,040</b>	<b>1,235,418</b>	<b>2,707,760</b>

Source: Study conducted by Howard Hemnoy Consulting Office (1995) in Special Nahar 4/12/96

Concerning water supply to the country's various regions, it varies significantly among Qadas.

In 1982, all city inhabitants were connected to the water supply network, whereas only 85 % of the inhabitants of the rural areas were.

Several studies of the population's needs concluded that daily consumption in Beirut should be of 200 litres/person, and 150 lit./person in rural regions, up to the year 2015.

Today, the water supply is such, that hardly 90 % of these needs are satisfied, and only 65 % of the Lebanese potential is exploited.

Moreover, a Beirut citizen gets 65 % of the water supply which could be supplied to him, while the rural areas get, on average, 90 % of their needs.

When the fighting stopped, the CDR started the implementation of a programme for the rehabilitation of water conveyance and purification networks. This programme involves the following components:

- the rehabilitation of existing infrastructure: pumping stations, wells, springs, reservoirs, drinking water transmission and distribution networks with respect to water conveyance. The purpose was to repair these services and bring them to a level comparable to their pre-war level, and to extend the networks in some newly-urbanised regions.
- technical assistance for the Ministry of Hydraulic and Electrical Resources (MRHE) and the water bureaux in order to allow these entities to benefit from the technical and management know-how of international experts.
- the development and extension of the water and purification infrastructures to complete the rehabilitation phase: on the one hand to increase hydraulic resources and extend the networks for water transmission and distribution; on the other to build networks for the collection of liquid waste and purification stations to protect spring water.

In the field of technical assistance to the MRHE, two contracts are in the process of being finalised. One concerns support for the Offices des Eaux (the water authorities for technical and administrative management), and another aiming to help in the management of the implementation of the works and the studies relevant to the programme set up by the CDR.

At the level of the infrastructure of the sector, contracts concerning water conveyance, purification, water treatment, and purchase of specialised equipment were finalised. Primarily, the Qadas of Chuf, Aley, and Maten in Mount Lebanon are meant to benefit from those projects.

Treatment stations in Ghadir and Dbayye (in Mount Lebanon) have enabled an increase in the proportions of treated distributed water.

As for the funding of these projects, they are mainly loans from Arab or European countries, and some are even grants.

#### 1.7.4 Sewage disposal

About 50 % of the households are linked to a sewer network; thus 81% of the needs of the urban regions' inhabitants are satisfied that way and 8% of the rural regions' inhabitants.

The sewer network is the most developed in Beirut (all of the city is supposedly connected to the sewage system), followed by the Mohafazat of Mount Lebanon (54 %), the North (46 %), the Bekaa (28 %), and the southern regions (18 % on average).

The major part of the capital's sewage network dates back to the thirties and is thus in a very bad state. The very incomplete systems that serve the other regions date back mainly to the sixties.

There are in Lebanon no plants for the treatment of used water. The five that existed before the war are out of order. This implies that the waste is disposed of through the existing sewage network... but always ends up in the nature or the sea.

The coastal regions dump the biggest volume of sewage in the Mediterranean sea at variable distances from the shore. Most internal regions, namely the rural ones discharge their sewage in the rivers and the valleys contaminating the major sources of drinking and irrigation water.

In some rural areas, wastewater is openly deviated towards agricultural fields via the irrigation network.

Other, mainly rural regions, resort to cesspools that contaminate the deep ground water, also source of potable water.

The global reconstruction plan taken in charge by the CDR comprises, however, rehabilitation and extension projects relating to wastewater treatment.

The main regions concerned by such projects are : the northern areas of Qobayyat, Tripoli, Batrun ; the southern Qadas of Sour and Saida, and the Qada of Kesrwan.

### **1.7.5 Solid waste collection and treatment**

Solid waste services were severely affected by the war. Damage of the equipment, the theft of an important proportionate of the collection vehicles, and lack of maintenance and management, are all elements which contributed to the accumulating off solid waste on certain plots, on street sides, and on natural sites such as in valleys or on riversides. Moreover, the only two solid waste treatment plants were put out of order.

In the absence of a public central body for the management and disposal of solid waste (namely domestic), the services of waste collection and destruction have long been left to the municipalities.

The municipality truck therefore collected solid domestic waste in several areas, although some villages didn't even benefit from such services, and their inhabitants had to dispose of their garbage themselves.

The reconstruction plan executed under the supervision of the CDR entails the rehabilitation of the treatment plants, the resuming of a urban waste collection plan and the set up of controlled garbage dumps.

Actually, actions as to garbage collection and rehabilitation are already being undertaken, and the general management method which has been chosen by the authorities is that of contracting with private operators, by region.

In the Greater Beirut area, Sukkar Engineering has been providing street cleaning and waste collection services since 1994. The Chuf area has been awarded to Terro for a period of three years, starting 1995.

As for the solid waste treatment modes, they are numerous, and the authorities would have to choose the best adaptable of the following three modes, according to the location: composting, incineration and dumping.

The actions to be taken in this sector should be done with the concern of limiting the effects on the environment.

Until today, more than \$160m have been already allocated to urban waste management projects and the contracts being prepared are estimated at \$6m.

Be it in terms of water or waste, the Lebanese authorities and the concerned entities are encouraging external assistance, be it financial or limited to technical support or to supervision.

In fact, certain foreign firms are themselves taking in charge the execution of specific projects. For example the Japanese have taken in charge the treatment of the waste mountain built up through the years on the sea coast in the Beirut suburb (in Dora).

Concerning the waste of a particular type, and more specifically the hospital waste, it is taken in charge by the hospitals themselves. However the latter are, for the majority, neglecting this element and do not take into consideration the necessity of a hygienic and safe disposal of their waste.

In spite of the absence of regulations on the issue, the private hospitals are actually considering a collective investment for the purchase of modern specialised equipment for the treatment of the waste they generate.

In spite of the launching of certain projects related to the solid waste disposal, and in spite of the net progress registered on the ground, namely in the capital, several regions in the Beirut suburbs (namely in the Qadas of Baadba and Metn) have already complained of the recent transformation of certain places into large domestic waste dumps, "temporary and for the lack of anything better".

Specially in cases where the pervert effects on the population's health are direct, the temporary solution should be avoided as much as possible. In fact, it is often said that nothing is more permanent than the temporary.

## 1.8 ROADS AND SIDEWALKS

The road network serving the residential buildings and the bordering sidewalks are considered as advantages or on the contrary as inconveniences for the residential areas.

The anarchy of the past years' Lebanese town planning, coupled with the infractions in terms of construction material, have tangibly eroded the roads and sidewalks specially in the urban regions.

In fact, the roads are not uniquely used for circulation, they are also occupied as parking lots and sometimes for trade. Both these functions are in principal severely regulated but the weakness of the public control structures has allowed numerous infractions and abuses.

First, we would note the non conformity of a big number of constructions to the backset requirements for obtaining construction permits. Second, the parking abuses with cars invading the sidewalks and the roadway in the absence of parking lots. This misplaced stationing is linked to a very strong growth of the urban concentrations without any planing or preparation on the ground. Third, we would mention the more and more frequent usage of the ways and the sidewalks for selling and exposing merchandise. Finally, the different works executed and the public or private sites have led to a destruction of the roads and the sidewalks.

This deterioration is not identical in all the Mohafazats and is specially seen in the capital's suburbs and in most of the cities.

In fact, the communication routes have been severely eroded by the lack of maintenance during the long years of war and specifically due to the anarchic development of construction in the past years. As for the sidewalks, they are in most cases non existent and the little remaining have also been damaged by the years of crisis.

The reconstruction phase has not yet led to an improvement of the road network and the access roads, namely in the big cities. In fact, the infrastructure works executed in the framework of the reconstruction and rehabilitation plans imply heavy operations on the roads for the installation of several circuits and networks.

### 1.8.1 *The Access roads*

More than 91.3% of the 389,927 buildings in the country are accessible by road. However this average varies from one region to another.

In Beirut, 97.6% of the buildings are served by a road. In Mount-Lebanon the average declines to 93.7%. It is only of 86.2% in the North and climbs to 94.7% in the South and to 92.1% in Nabatyee.

**DISTRIBUTION OF THE BUILDINGS ACCORDING TO THE PLACE OF RESIDENCE AND TO THE ACCESS ROUTES**

Mohafazat	EXISTENCE OF THE ROAD			Total
	YES	NO	(blank)	
BEIRUT	13302	306	18	13626
% of row	97.62%	2.25%	0.13%	100.00%
MOUNT LEBANON	133905	8775	191	142871
% of row	93.72%	6.14%	0.13%	100.00%
NORTH LEBANON	69732	11000	132	80865
% of row	86.20%	13.6%	0.20%	100.00%
EL-BEKAA	58629	8019		66648
% of row	87.97%	12.03%	0.00%	100.00%
SOUTH LEBANON	45370	2455	41	47866
% of row	94.79%	5.13%	0.09%	100.00%
NABATYYE	35042	3010		38052
% of row	92.09%	7.91%	0.00%	100.00%
<b>ALL LEBANON</b>	<b>356502</b>	<b>33033</b>	<b>392</b>	<b>389927</b>
<b>% of row</b>	<b>91.43%</b>	<b>8.47%</b>	<b>0.10%</b>	<b>100.00%</b>

The non accessibility of the buildings by road is often linked to the morphology of the land, given that the Lebanese villages and cities are almost always built on the hillside or the mountain.

The development of the access routes is often done on private initiative but the public authorities ensure the management and the access to the main roads' network.

The existence of a road does not satisfy for that matter the residents, as they often consider these routes as very defective.

**DISTRIBUTION OF THE BUILDINGS HAVING AN ACCESS ROAD BY SITUATION OF THE ACCESS ROADS AND BY MOHAFAZAT**

Mohafazat	SITUATION OF THE ROAD					Total
	Good	Fair	Defective, in need of maintenance	Defective, in need of widening	(blank)	
BEIRUT	7,182	5,994	126			13,302
% of row	54.0%	45.1%	0.9%	0.0%	0.0%	100.0%
MOUNT LEBANON	62,688	60,920	7,764	2,389	144	133,905
% of row	46.8%	45.5%	5.8%	1.8%	0.1%	100.0%
NORTH LEBANON	24,868	22,802	16,074	5,861	127	69,732
% of row	35.7%	32.7%	23.1%	8.4%	0.2%	100.0%
BEKAA	6,314	37,605	11,699	3,011		58,629
% of row	10.8%	64.1%	20.0%	5.1%	0.0%	100.0%
SOUTH LEBANON	12,261	21,869	2,945	8,295		45,370
% of row	27.0%	48.2%	6.5%	18.3%	0.0%	100.0%
NABATYYE	11,035	14,633	3,418	5,957		35,042
% of row	31.5%	41.8%	9.8%	17.0%	0.0%	100.0%
<b>ALL LEBANON</b>	<b>124,348</b>	<b>163,823</b>	<b>42,025</b>	<b>25,514</b>	<b>271</b>	<b>355,981</b>
<b>% of row</b>	<b>34.9%</b>	<b>46.0%</b>	<b>11.8%</b>	<b>7.2%</b>	<b>0.1%</b>	<b>100.0%</b>

For 35% of the buildings having an access road, this latter is considered to be in an acceptable condition. This proportion falls to 33% for the bordering roads. More than 45% believe that these roads are in an average condition and 20% believe that the roads are defective and should be expanded or rehabilitated.

In Beirut the rates of satisfaction are high with 53.7% of the roads network estimated as satisfactory and 45% judged as average. Less than 1% would need repairing.

The proportion of the defective roads network moves to 8% in Mount Lebanon with an equal distribution between satisfactory and average for the remaining 92%.

In the North 30% of the network would be needing rehabilitation or expansion.

In the Bekaa, the residents believe that only 11% of the roads serving their buildings are satisfactory, 64% are judged as in an average condition and 25% should be rehabilitated or enlarged.

This rate of 25% is also observed in South Lebanon and in Nabatyee.

For the remaining, the tendency would be of average rather than satisfactory networks.

### 1.8.2 Sidewalks and verges

For the sidewalks and the roads' verges, the situation is worse as on the national context 7.7% of the roads do not have any sidewalks and if the latter exist they are 64% defective. We only count 13.3% of the sidewalks in a satisfactory condition and 15% are acceptable.

#### DISTRIBUTION OF THE BUILDINGS ACCORDING TO THE MOHAFAZAT AND TO THE SITUATION OF THE SIDEWALKS

Mohafazat	SITUATION OF THE SIDEWALKS					Total
	Existent and good	Existent and fair	Existent and defective	Not existent	(blank)	
BEIRUT	6,696	5,868	738			13,302
% of row	50.3%	44.1%	5.5%	0.0%	0.0%	100.0%
MOUNT LEBANON	28,750	29,394	65,554	10,070	137	133,905
% of row	21.5%	22.0%	49.0%	7.5%	0.1%	100.0%
NORTH LEBANON	6,845	6,883	55,174	596	233	69,732
% of row	9.8%	9.9%	79.1%	0.9%	0.3%	100.0%
EL-BEKAA	1,511	8,472	39,650	8,933	64	58,629
% of row	2.6%	14.4%	67.6%	15.2%	0.1%	100.0%
SOUTH LEBANON	3,066	2,113	36,173	4,018		45,370
% of row	6.8%	4.7%	79.7%	8.9%	0.0%	100.0%
NABATYYE	454	925	29,790	3,874		35,042
% of row	1.3%	2.6%	85.0%	11.1%	0.0%	100.0%
<b>ALL LEBANON</b>	<b>47,323</b>	<b>53,654</b>	<b>227,079</b>	<b>27,491</b>	<b>434</b>	<b>355,981</b>
<b>% of row</b>	<b>13.3%</b>	<b>15.1%</b>	<b>63.8%</b>	<b>7.7%</b>	<b>0.1%</b>	<b>100.0%</b>

All the roads of Beirut have sidewalks, 50% of which are in a satisfactory condition and 44% in an average state. Both these proportions are respectively of 21.5% and 22% in Mount Lebanon where 49% of the sidewalks are defective. More than 7.5% of the roads do not have any sidewalk.

For North Lebanon 80% of the sidewalks would be defective and a bit more than 19% are satisfactory or average.

In the Bekaa 15% of the roads do not have sidewalks, this rate is of 11% in Nabatyee and 9% in the South. In both these last regions the quasi totality of the existing sidewalks are in a defective state.

## 1.9 EDUCATION, HEALTH AND LEISURE SERVICES

### 1.9.1 Education services

This section aims at evaluating the proximity of the different Lebanese regions to public or private primary, intermediary and secondary schools. Indeed, the existence of a school in a nearby area can play an important role as to the choice of the place of residence.

#### 1.9.1.1 Primary schools

On average, and except for Beirut, 65.8% of the Lebanese households live in areas where the nearest private primary school is in the same town or region.

This national average is around 77.6% for public primary schools.

As for the capital, it comprises a large number of schools (primary, intermediate and secondary) such that all its households live relatively close to a school.

On a Mohafazat level, we notice that the concentration of public primary schools is significantly bigger than that of private schools.

Concerning the residences which are in the same area as the nearest primary school, it seems that all the Mohafazats have between 70% and 90% of their households living close to a public school, and between 52% and 75% of these households live close to a private school.

Compared to the number of its households, Nabatyee has the biggest proportion of families living close to a public primary school (90%). In terms of private primary schools, the proportion is of 75% in Mount Lebanon.

#### DISTRIBUTION OF RESIDENCES ACCORDING TO THE NEAREST PUBLIC PRIMARY SCHOOL

PLACE OF RESIDENCE	NEAREST PUBLIC PRIMARY SCHOOL					Total
	In the same town or area	In a close town or area	In the same Qada	Elsewhere	(blank)	
MOUNT LEBANON	240,482	55,854	27,537		187	324,060
% of row	74.21%	17.24%	8.50%		0.06%	100.00%
NORTH LEBANON	101,599	21,955	6,038	30	750	130,373
% of row	77.93%	16.84%	4.63%	0.02%	0.58%	100.00%
BEKAA	87,016	8,602	3,058			98,676
% of row	88.18%	8.72%	3.10%			100.00%
SOUTH LEBANON	55,738	18,169	5,958			79,865
% of row	69.79%	22.75%	7.46%			100.00%
NABATYYE	45,034	4,256	654		59	50,002
% of row	90.06%	8.51%	1.31%		0.12%	100.00%
<b>TOTAL (without Beirut)</b>	<b>529,869</b>	<b>108,836</b>	<b>43,244</b>	<b>30</b>	<b>996</b>	<b>682,975</b>
<b>National Average</b>	<b>77.6%</b>	<b>15.9%</b>	<b>6.3%</b>	<b>0.0%</b>	<b>0.1%</b>	<b>100.0%</b>

**DISTRIBUTION OF THE RESIDENCES ACCORDING TO THE PLACE OF RESIDENCE  
AND TO THE NEAREST PRIVATE PRIMARY SCHOOL**

PLACE OF RESIDENCE	NEAREST PRIVATE PRIMARY SCHOOL					Total
	In the same town or area	In a close town or area	In the same Qada	Elsewhere	(blank)	
MOUNT LEBANON	242,374	71,407	10,093		187	324,060
% of row	74.79%	22.04%	3.11%		0.06%	100.00%
NORTH LEBANON	77,713	29,622	22,257	30	750	130,373
% of row	59.61%	22.72%	17.07%	0.02%	0.58%	100.00%
BEKAA	61,490	25,927	11,258			98,676
% of row	62.32%	26.28%	11.41%			100.00%
SOUTH LEBANON	41,297	31,109	7,459			79,865
% of row	51.71%	38.95%	9.34%			100.00%
NABATYYE	26,775	14,390	8,838			50,002
% of row	53.55%	28.78%	17.67%			100.00%
<b>TOTAL (without Beirut)</b>	<b>449,649</b>	<b>172,455</b>	<b>59,905</b>	<b>30</b>	<b>937</b>	<b>682,975</b>
<b>National Average</b>	<b>65.8%</b>	<b>25.3%</b>	<b>8.8%</b>	<b>0.0%</b>	<b>0.1%</b>	<b>100.0%</b>

As for the distribution of the primary schools by Qada, it seems that some Qadas comprise relatively large proportions of households living close to primary schools. Actually the figures show a connection between the number of residences in the Qada and the number of schools. It seems that public and private schools are mainly found in the most populated areas.

Moreover, the figures bring out the fact that the main cities or towns in each Mohafazat have the biggest concentration of primary schools than at the level of public ones.

#### 1.9.1.2 Intermediate schools

With the exception of Beirut, 70.8% of the Lebanese households live in the same area as the nearest public intermediate school, whereas 61.6% of them live close to a private intermediate schools.

Similarly to the geographic distribution of primary schools, there are differences in the concentration of private and public intermediate schools which can be noticed on the Mohafazat level.

Indeed, Nabatyye and the Bekaa have the biggest proportion of residences close to a public school (74%) whereas Mount Lebanon ranks first in terms of private primary schools with also 74%.

**DISTRIBUTION OF THE RESIDENCES ACCORDING TO THE PLACE OF RESIDENCE  
AND TO THE NEAREST PUBLIC INTERMEDIATE SCHOOL**

PLACE OF RESIDENCE	NEAREST PUBLIC INTERMEDIATE SCHOOL					Total
	In the same town or area	In a close town or area	In the same Qada	Elsewhere	(blank)	
MOUNT LEBANON	233,357	62,515	28,002		187	324,060
% of row	72.01%	19.29%	8.64%		0.06%	100.00%
NORTH LEBANON	88,601	29,189	11,689	30	863	130,373
% of row	67.96%	22.39%	8.97%	0.02%	0.66%	100.00%
BEKAA	73,493	18,742	6,420	20		98,676
% of row	74.48%	18.99%	6.51%	0.02%		100.00%
SOUTH LEBANON	50,505	24,141	5,219			79,865
% of row	63.24%	30.23%	6.53%			100.00%
NABATYYE	37,303	8,427	4,213		59	50,002
% of row	74.60%	16.85%	8.42%		0.12%	100.00%
<b>TOTAL (without Beirut)</b>	<b>483,260</b>	<b>143,014</b>	<b>55,542</b>	<b>50</b>	<b>1,109</b>	<b>682,975</b>
<b>National Average</b>	<b>70.8%</b>	<b>20.9%</b>	<b>8.1%</b>	<b>0.0%</b>	<b>0.2%</b>	<b>100.0%</b>

Also on a Mohafazat level, differences are noticed in the figures on primary schools. It seems that the proportions of households living close to intermediate schools are lower than those of households living close to primary schools. This remark is true as much for private establishments as for public ones.

**DISTRIBUTION OF THE RESIDENCES ACCORDING TO THE PLACE OF RESIDENCE  
AND TO THE NEAREST PRIVATE INTERMEDIATE SCHOOL**

PLACE OF RESIDENCE	NEAREST PRIVATE INTERMEDIATE SCHOOL					Total
	In the same town or area	In a close town or area	In the same Qada	Elsewhere	(blank)	
MOUNT LEBANON	239,110	74,606	10,157		187	324,060
% of row	73.79%	23.02%	3.13%		0.06%	100.00%
NORTH LEBANON	73,706	29,139	26,747	30	750	130,373
% of row	56.53%	22.35%	20.52%	0.02%	0.58%	100.00%
BEKAA	49,392	38,191	11,073	20		98,676
% of row	50.05%	38.70%	11.22%	0.02%		100.00%
SOUTH LEBANON	37,018	35,106	7,740			79,865
% of row	46.35%	43.96%	9.69%			100.00%
NABATYYE	21,581	17,951	10,471			50,002
% of row	43.16%	35.90%	20.94%			100.00%
<b>TOTAL (without Beirut)</b>	<b>420,807</b>	<b>194,992</b>	<b>66,189</b>	<b>50</b>	<b>937</b>	<b>682,975</b>
<b>National Average</b>	<b>61.6%</b>	<b>28.6%</b>	<b>9.7%</b>	<b>0.0%</b>	<b>0.1%</b>	<b>100.0%</b>

#### 1.9.1.3 Secondary schools

The higher the level of education, the more scarce the establishments. Hence, the proportion of households living close to secondary schools (public or private) is lower than that of the families living close to intermediate or primary schools.

On average, 52.2% of the Lebanese households, Beirut excluded, live in the same town as the nearest private secondary school. This proportion is 50% if we consider the public schools.

On the other hand, 33% of the households live in the same Qada as the nearest private and public secondary school.

**DISTRIBUTION OF THE RESIDENCES ACCORDING TO THE PLACE OF RESIDENCE AND TO THE NEAREST PUBLIC SECONDARY SCHOOL**

PLACE OF RESIDENCE	NEAREST PUBLIC SECONDARY SCHOOL					Total
	In the same town or area	In a close town or area	In the same Qada	Elsewhere	(blank)	
MOUNT LEBANON	190,511	95,293	37,841	228	187	324,060
% of row	58.79%	29.41%	11.68%	0.07%	0.06%	100.00%
NORTH LEBANON	69,173	32,926	27,446	30	798	130,373
% of row	53.06%	25.25%	21.05%	0.02%	0.61%	100.00%
BEKAA	43,336	40,077	14,798	465		98,676
% of row	43.92%	40.61%	15.00%	0.47%		100.00%
SOUTH LEBANON	26,222	37,898	15,745			79,865
% of row	32.83%	47.45%	19.72%			100.00%
NABATYYE	13,979	20,222	15,802			50,002
% of row	27.96%	40.44%	31.60%			100.00%
<b>TOTAL (without Beirut)</b>	<b>343,222</b>	<b>226,415</b>	<b>111,631</b>	<b>723</b>	<b>985</b>	<b>682,975</b>
<b>National Average</b>	<b>50.3%</b>	<b>33.2%</b>	<b>16.3%</b>	<b>0.1%</b>	<b>0.1%</b>	<b>100.0%</b>

**DISTRIBUTION OF THE RESIDENCES ACCORDING TO THE PLACE OF RESIDENCE AND TO THE NEAREST PRIVATE SECONDARY SCHOOL**

PLACE OF RESIDENCE	NEAREST PRIVATE SECONDARY SCHOOL					Total
	In the same town or area	In a close town or area	In the same Qada	Elsewhere	(blank)	
MOUNT LEBANON	219,964	86,629	17,280		187	324,060
% of row	67.88%	26.73%	5.33%		0.06%	100.00%
NORTH LEBANON	66,182	25,257	36,926	1,258	750	130,373
% of row	50.76%	19.37%	28.32%	0.96%	0.58%	100.00%
BEKAA	36,855	44,964	16,069	788		98,676
% of row	37.35%	45.57%	16.28%	0.80%		100.00%
SOUTH LEBANON	22,930	41,177	15,662		97	79,865
% of row	28.71%	51.56%	19.61%		0.12%	100.00%
NABATYYE	10,759	24,446	14,797			50,002
% of row	21.52%	48.89%	29.59%			100.00%
<b>TOTAL (without Beirut)</b>	<b>356,689</b>	<b>222,473</b>	<b>100,734</b>	<b>2,046</b>	<b>1,034</b>	<b>682,975</b>
<b>National Average</b>	<b>52.2%</b>	<b>32.6%</b>	<b>14.7%</b>	<b>0.3%</b>	<b>0.2%</b>	<b>100.0%</b>

Except for Mount Lebanon, the households living in the same town or area as the nearest public secondary school are greater in number than those living close to the nearest private secondary school.

When it comes to the concentration of secondary schools, be they public or private, Mount Lebanon and the North comprise the biggest proportions of households living close to secondary schools (with respectively 59% and 53% for public schools and 68% and 51% for private schools).

On the whole, schools seem to be rather well distributed on the Lebanese territory, public and private; primary, intermediate or secondary. Indeed, on average 63% of all households (Beirut excluded) live close to a school. The proportion goes to 66.2% for public schools and only an average of 59.8% for private ones.

**1.9.2 Health establishments**

Although people do not normally choose their house in relation to the availability of a hospital or dispensary in the area, health establishments are among the factors that contribute to the amelioration of living conditions in general.

The capital has not been included in the figures in order to point out regional disparities and prevent over-estimation of national averages.

**1.9.2.1 Dispensaries**

On average, with the exception of Beirut, 68.3% of households live in the same town or area where there is a dispensary against 25.7% living in a close town. Mount Lebanon comprises the biggest proportion (76.6%) of such households (Beirut excluded) whereas the South comprises the lowest proportion (55%).

Dispensaries are not homogeneously distributed over the different regions, and important disparities are noted in some Mohafazat. For instance, whereas almost all households living in the Qada of Tripoli have the nearest dispensary in the same area as their house, only 29% of those living in Batrun do.

**DISTRIBUTION OF THE RESIDENCES ACCORDING TO THE PLACE OF RESIDENCE AND TO THE NEAREST DISPENSARY**

PLACE OF RESIDENCE	NEAREST DISPENSARY					Total
	In the same town or area	In a close town or area	In the same Qada	Elsewhere	(blank)	
MOUNT LEBANON	248,372	71,425	4,076		187	324,060
% of row	76.64%	22.04%	1.26%		0.06%	100.00%
NORTH LEBANON	84,613	28,974	14,579	1,361	846	130,373
% of row	64.90%	22.22%	11.18%	1.04%	0.65%	100.00%
BEKAA	57,840	31,167	9,668			98,676
% of row	58.62%	31.59%	9.80%			100.00%
SOUTH LEBANON	43,960	28,162	7,743			79,865
% of row	55.04%	35.26%	9.70%			100.00%
NABATYYE	31,794	15,459	2,750			50,002
% of row	63.58%	30.92%	5.50%			100.00%
<b>TOTAL (without Beirut)</b>	<b>466,579</b>	<b>175,186</b>	<b>38,816</b>	<b>1,361</b>	<b>1,033</b>	<b>682,975</b>
<b>National Average</b>	<b>68.3%</b>	<b>25.7%</b>	<b>5.7%</b>	<b>0.2%</b>	<b>0.2%</b>	<b>100.0%</b>

However, dispensaries are more numerous than hospitals. In fact, dispensaries are supposed to ensure first aid services, as well as primer health services, whereas hospitals are complex health establishments, with a much bigger staff and much more developed medical services and equipments.

### 1.9.2.2 *Public and private hospitals*

Public hospitals have severely suffered from the war and the collapse of public authority and adequate management. Those which are still in use are nearer big dispensaries than efficient health establishments. Nevertheless, the authorities are working on developing public hospitals and distributing new and rehabilitated hospitals equally among regions.

#### DISTRIBUTION OF THE RESIDENCES ACCORDING TO THE PLACE OF RESIDENCE AND TO THE NEAREST PUBLIC HOSPITAL

PLACE OF RESIDENCE	NEAREST PUBLIC HOSPITAL					Total
	In the same town or area	In a close town or area	In the same Qada	Elsewhere	(blank)	
MOUNT LEBANON	54,717	53,353	192,404	23,338	249	324,060
% of row	16.88%	16.46%	59.37%	7.20%	0.08%	100.00%
NORTH LEBANON	39,256	23,197	13,610	53,446	863	130,373
% of row	30.11%	17.79%	10.44%	41.00%	0.66%	100.00%
BEKAA	21,032	25,411	49,984	2,215	34	98,676
% of row	21.31%	25.75%	50.65%	2.24%	0.03%	100.00%
SOUTH LEBANON	14,271	28,065	37,530			79,865
% of row	17.87%	35.14%	46.99%			100.00%
NABATYYE	6,231	10,043	30,242	3,442	43	50,002
% of row	12.46%	20.09%	60.48%	6.88%	0.09%	100.00%
<b>TOTAL (without Beirut)</b>	<b>135,506</b>	<b>140,069</b>	<b>323,770</b>	<b>82,441</b>	<b>1,189</b>	<b>682,975</b>
<b>National Average</b>	<b>19.8%</b>	<b>20.5%</b>	<b>47.4%</b>	<b>12.1%</b>	<b>0.2%</b>	<b>100.0%</b>

The figures above show low proportions of households living close to a public hospital. This is due to the existence of few public hospitals in the country (24 public hospitals compared with 145 private ones in 1997).

Indeed, the Lebanese health sector has long since given priority to private medical services.

The comparison of private and public hospitals figures brings out the scarcity of public health facilities and the overall satisfactory geographical distribution of private hospitals.

While Beirut comprises the most important and numerous private hospitals, Mount Lebanon and the North have around 46% of their households living close to a private hospital. The South and Nabatyee, in the contrary, do not benefit from sufficient hospitals, public or private, since they comprise the smallest proportions

of households living close to a hospital (respectively 27% and 7% for the nearest private hospital and 18% and 12% for the nearest public hospital).

#### DISTRIBUTION OF THE RESIDENCES ACCORDING TO THE PLACE OF RESIDENCE AND TO THE NEAREST PRIVATE HOSPITAL

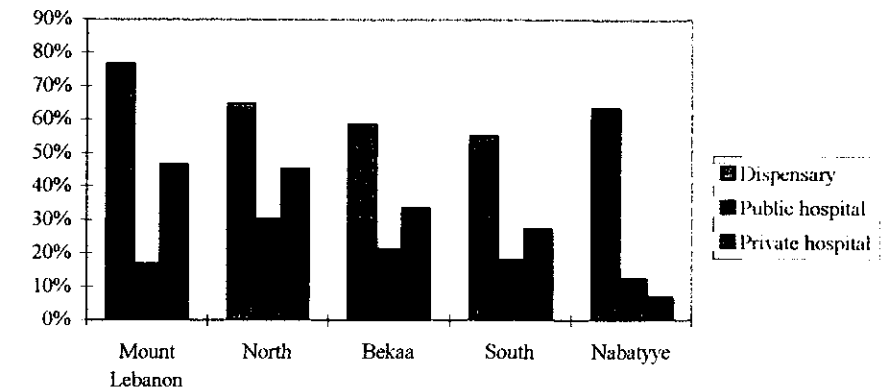
PLACE OF RESIDENCE	NEAREST PRIVATE HOSPITAL					Total
	In the same town or area	In a close town or area	In the same Qada	Elsewhere	(blank)	
MOUNT LEBANON	151,073	129,821	39,415	3,441	310	324,060
% of row	46.62%	40.06%	12.16%	1.06%	0.10%	100.00%
NORTH LEBANON	59,193	23,622	41,573	5,138	846	130,373
% of row	45.40%	18.12%	31.89%	3.94%	0.65%	100.00%
BEKAA	33,069	44,258	21,349			98,676
% of row	33.51%	44.85%	21.64%			100.00%
SOUTH LEBANON	21,888	31,396	21,233	5,348		79,865
% of row	27.41%	39.31%	26.59%	6.70%		100.00%
NABATYYE	3,492	10,429	15,448	20,633		50,002
% of row	6.98%	20.86%	30.89%	41.26%		100.00%
<b>TOTAL (without Beirut)</b>	<b>268,714</b>	<b>239,527</b>	<b>139,019</b>	<b>34,560</b>	<b>1,156</b>	<b>682,975</b>
<b>National Average</b>	<b>39.3%</b>	<b>35.1%</b>	<b>20.4%</b>	<b>5.1%</b>	<b>0.2%</b>	<b>100.0%</b>

On average, 39.3% of households live in the same town or area as the nearest private hospital compared with 19.8% for public hospitals. 35% of households live in an area close to a private hospital and 20.5% near a public one.

The above proportions should be changing soon, under the effect of the new government project concerning the creation of new public hospitals in order to moderate the health sector, currently a quasi-monopoly of the private sector.



**Distribution of the households according to the nearest health establishment (in the same town or area)**



**1.9.3 Leisure services**

Leisure services, hotels excepted, are among those which haven't much suffered from the war, except in such areas as the South of Lebanon, the Bekaa and some Mount Lebanon destroyed areas such as Shuf and Aley.

Indeed, leisure services usually vary with population distribution, as well as economic situation.

On average, except Beirut, 69% of households live in the same town or area as the nearest cultural or sport club, 66.4% live close to a cafe or restaurant, 34.7% of households have close to them a cinema or theatre.

**DISTRIBUTION OF THE RESIDENCES ACCORDING TO THE PLACE OF RESIDENCE  
AND TO THE NEAREST CINEMA OR THEATER**

PLACE OF RESIDENCE	NEAREST CINEMA OR THEATRE					Total
	In the same town or area	In a close town or area	In the same Qada	Elsewhere	(blank)	
MOUNT LEBANON	147,897	70,984	98,422	6,446	311	324,060
% of row	45.64%	21.90%	30.37%	1.99%	0.10%	100.00%
NORTH LEBANON	51,747	17,843	32,421	27,611	750	130,373
% of row	39.69%	13.69%	24.87%	21.18%	0.58%	100.00%
BEKAA	20,356	21,049	48,491	8,780		98,676
% of row	20.63%	21.33%	49.14%	8.90%		100.00%
SOUTH LEBANON	13,596	2,822	56,469	6,977		79,865
% of row	17.02%	3.53%	70.71%	8.74%		100.00%
NABATYYE	3,527	4,826	20,933	20,717		50,003
% of row	7.05%	9.65%	41.86%	41.43%		100.00%
<b>TOTAL (without Beirut)</b>	<b>237,123</b>	<b>117,524</b>	<b>256,735</b>	<b>70,532</b>	<b>1,061</b>	<b>682,975</b>
<b>National Average</b>	<b>34.7%</b>	<b>17.2%</b>	<b>37.6%</b>	<b>10.3%</b>	<b>0.2%</b>	<b>100.0%</b>

The South and Nabatyye seem to have the least theatre and cinemas compared to their inhabitants. On average, in the South of Lebanon, 12% of the residents live close to a cinema or theatre.

Cinemas and theatres are, on the contrary, quite numerous in Mount Lebanon, namely in the Beirut suburbs and the coastal areas, which have benefited significantly from the war. Leisure services developed in those regions along with the population increase. The figures show that 66.45% of the households live in the same town or area as the nearest cinema or theatre against 68% for Baabda. This proportion goes to 87% and 97% respectively if we consider the nearest cafe or restaurant.

In fact, Mount Lebanon accounts for the highest proportion of households living close to cinemas or theatres, restaurants and cultural and sports clubs with respectively 46%, 76% and 81% of its households.

**DISTRIBUTION OF THE RESIDENCES ACCORDING TO THE NEAREST CAFE OR RESTAURANT AND TO THE NEAREST CULTURAL CENTER**

PLACE OF RESIDENCE	NEAREST CAFE OR RESTAURANT		
	In the same town or area	In a close town or area	In a far town or area
MOUNT LEBANON	245,501	68,205	25,294
% of row	75.76%	21.05%	7.19%
NORTH LEBANON	74,164	23,698	10,136
% of row	56.89%	18.18%	14.93%
BEKAA	53,602	28,466	12,132
% of row	54.32%	28.85%	16.83%
SOUTH LEBANON	50,385	26,055	11,120
% of row	63.09%	32.62%	14.31%
NABATYYE	29,703	13,944	5,757
% of row	59.40%	27.89%	11.71%
<b>TOTAL (without Beirut)</b>	<b>453,355</b>	<b>160,368</b>	<b>62,326</b>
National Average	66.4%	23.5%	9.1%

Regional disparities are mostly noticed as to cinema (Northern and Southern regions), whereas the geographical distribution of sports clubs seem to be satisfactory.

Although the capital is not taken into consideration (to prevent overestimation), it continues to attract tourists and leisure activities in the country. The reconstruction projects of the city are currently acting as attraction poles mainly in Beirut but also in its suburbs.

**DISTRIBUTION OF THE RESIDENCES ACCORDING TO THE NEAREST CULTURAL CENTER**

PLACE OF RESIDENCE	NEAREST CULTURAL CENTER		
	In the same town or area	In a close town or area	In a far town or area
MOUNT LEBANON	263,264	54,107	20,829
% of row	81.24%	16.70%	6.06%
NORTH LEBANON	81,032	22,016	9,152
% of row	62.15%	16.89%	7.96%
BEKAA	52,785	28,454	11,132
% of row	53.49%	28.84%	11.67%
SOUTH LEBANON	47,044	23,416	9,120
% of row	58.90%	29.32%	11.78%
NABATYYE	27,721	12,787	5,757
% of row	55.44%	25.57%	11.59%
<b>TOTAL (without Beirut)</b>	<b>471,845</b>	<b>140,780</b>	<b>52,745</b>
National Average	69.1%	20.6%	10.3%

## 1.10 STATUS OF HOUSING UNITS IN THE VILLAGES OF THOSE DISPLACED

Since 1975, a series of conflicts broke out in Lebanon which lasted nearly seventeen years. Consequently, massive destruction occurred including extensive damage to houses, physical and social infrastructures, economic and educational institutions, besides massive displacement of populations.

The housing problem is the major personal issue confronting displaced persons. Indeed, many families have lost their homes and are occupying someone else's house or building, often unsuitable for occupation. The level of housing standards deteriorated, and building codes were violated. In some cases, more than one family live together in cramped quarters. Moreover, buildings have sprung up everywhere on private properties or the public domain.

In this section focus will be made on the description of the status of housing units in the damaged villages. A description of the pre-requisites for the return will follow, with details on the financial resources requested for the rehabilitation of those housing units and villages.

### 1.10.1 *Status of housing units in the abandoned villages*

#### 1.10.1.1 *Damaged villages or cities*

The table below shows the number of villages damaged for the three Qadas of Aley, Chouf and Baabda.

Qada	Nb. of villages	Damaged	% of Qada	% of all Qada
Aley	68	48	70.59	21.92
Chouf	95	67	70.52	30.59
Baabda	56	10	17.85	57.08
Total	219	125	57.07	

Source - Ministry of Displaced Persons ; the city summit 1996.

The Qada of Aley, Chouf and Baabda were the most affected by the war. As a matter of fact, 57% of the villages of those three Qadas were damaged due to the war.

Qada	Completely destroyed	% of Qada	Partially destroyed	% of Qada	Total
Aley	13	10.04	35	28	48
Chouf	24	19.2	43	30.59	67
Baabda	7	5.6	3	57.08	10
Total	44	20.01	81	36.98	125

Source - Ministry of Displaced Persons ; the city summit 1996.

According to the figures listed above, 20% of the villages of the three Qadas were completely destroyed and 37% were partially destroyed. Those very high percentages reflect the intensity of the conflict in that part of the country, essentially between 1982 and 1985.

#### 1.10.1.2 *Damaged houses*

The table below shows the number of houses that were damaged partially or completely because of the war.

Mohafazat	Damaged	Completely destroyed	Partially destroyed	Total	%
Beirut	344	2,576	573	3,493	7.76%
Mount-Leb	4,630	14,778	6,410	25,818	57.33%
South	3,231	4,865	4,424	12,520	27.80%
North	499	1,053	673	2,225	4.94%
Bekaa	340	409	235	150	2.17%
Total	9,044	23,661	12,315	45,020	100%
%	20.09%	52.56%	27.35%	100%	

Source - Ministry of Displaced Persons - Executive report May 1993.

According to the figures shown above it is clear that the greater number of either partially damaged or completely destroyed houses, is concentrated in the Mohafazat of Mount-Lebanon and more specifically in the Qadas of Maten, Chouf and Aley. 26% of the damaged houses were located in Aley and 22% in the Chouf. The damage and destruction occurred mainly between 1982 and 1985 because of the fierce sectarian fighting in the Mountain, compounded with the Israeli invasion.

The Israeli invasion has also been instrumental in the destruction of almost 12,500 houses in the South, representing 28% of the national total of damaged houses. Furthermore, the 3,500 houses damaged in Beirut are concentrated downtown in the business center as a result of the fifteen years of war.

More than fifty percent of the damaged houses are completely destroyed, 23% partially destroyed and 17% damaged in varying degrees. The proportion of completely destroyed houses is very high because those houses were located in rural regions and their construction was not as solid as the houses located in the cities.

#### 1.10.1.3 *Type of houses in the villages of the displaced*

The table below shows the distribution of households according to the type of houses in the displaced villages.

Type of lodging	Households	%
Independent houses	31,657	56%
Apartment	22,844	40%
Others	2,428	4%
Total	56,573	100%

As previously mentioned, the majority of housing units in the villages of those who were displaced were independent houses. As a matter of fact, 56% of the households in these regions live in individual houses and 40% in apartments, which means that the proportion of individual houses is much higher than the proportion of buildings in the abandoned villages. Conversely, in Beirut less than 1% of the housing units are independent houses.

#### 1.10.1.4 *Area of housing units of the displaced*

The table below shows the distribution of households according to the area of their original housing unit.

Area of the housing unit in m <sup>2</sup>	Households	%
<25	5,795	10.24
26-50	5,980	10.57
51-75	7,281	12.78
76-100	8,816	15.57
101-125	4,810	8.50
126-150	6,964	12.25
151-175	1,722	3.04
>175	15,225	26.92
<b>Total</b>	<b>56,573</b>	<b>100%</b>

Almost half of the displaced families were living in housing units exceeding 125 square meters in area and only 30% were living in housing units whose area was less than 75 square meters.

Furthermore, 30% were living in housing units whose surface area exceeded 150 square meters and the compensation offered by the Ministry of the Displaced only deals with the reconstruction and restoration of a housing unit not exceeding 150 square meters for a single family.

This means that no more than 30% of the families can benefit from this financial support. But displaced families who were living in small housing units increased in size since their fleeing, which makes the return to their original housing units even more difficult.

#### 1.10.1.5 *Current occupancy status of the housing units in the abandoned regions*

The table below indicates the occupancy status of the abandoned housing units.

Occupancy status	Number	%
Legal occupation	5,392	9.53
Squatted	16,443	26.06
Unoccupied	18,808	33.24
Other	15,930	28.15
Total	56,573	100%

Only 10% of the houses in the regions of the displaced are legally occupied by people who are either owners or tenants.

Besides, 33% are not occupied ; in that specific case the displaced family has not returned to its original housing unit because the housing unit is damaged or because the head of the family found a new job and cannot find the equivalent in his village of origin.

Finally, 26% of the housing units are occupied by squatters who are themselves people who were displaced from other regions or by squatters seizing the opportunity to live for free in a decent place. The problem of squatters is one of the major issues that need to be treated today in order to encourage the return of displaced persons to their original housing units.

### 1.10.2 The process of rebuilding

As described above, many housing units have been destroyed because of the war ; whole villages have even been ravaged. The reconstruction process has started with the end of the war at a tempo that varies according to the different regions and villages. The Ministry of the Displaced and the Central Fund for the Displaced will handle the management of the Executive Program for the return of the Displaced and the reconstruction or the rehabilitation of the damaged residences.

#### 1.10.2.1 Rebuilding needs

In order to encourage the displaced households to move back to their original villages, the Government should help them reconstruct their dwellings and rehabilitate the infrastructure.

#### Specific goals determined by the Council of Ministers

- Rehabilitating sites of construction ;
- Rehabilitation of the infrastructure in terms of electricity, water, roads, communication and sanitation ;
- Rehabilitating and developing the social infrastructure, by providing educational services and technical institutes ;
- Rehabilitation of the productive economic sector ;
- Achieving local reconciliation.

#### Infrastructure projects accomplished up to March 1996

The following lists the funds spent by the Government on infrastructure projects related to the return of the displaced:

Equipping water pumping stations	2,771,180 \$
Rehabilitating water distribution networks	17,040,103 \$
Equipping water wells	1,873,279 \$
Rehabilitation of drawing canals	20,749,705 \$
Refuse and waste disposal systems	246,474 \$
Construction of water tanks	499,192 \$
Installing electrical networks	3,750,000 \$
Total expenses	47,483,229 \$

#### 1.10.2.2 Financial help for the restoration of houses

##### Financial conditions

The Ministry of the Displaced and the Central fund for the Displaced has budgeted financial aid for the restoration of houses. The maximum amount is \$11,000 per house. Regarding reconstruction, the amount is \$20,000 plus \$2,500 for enhancement purposes. These payments for compensation will cover reconstruction or restoration of a housing unit not exceeding 150 m<sup>2</sup> for a single family.

##### Accomplishment through end of March 1996

The restoration of 17,329 housing units was started, of which 12,341 units received two payments and completed the restoration of the houses involved. The remainder are under restoration. The total amount allocated for restoration is valued at \$66,680,263.

Reconstruction of 4,052 housing units was initiated, among them 677 units which have been completely reconstructed and reimbursed by two payments ; reconstruction of the rest is currently in progress. Total costs amounted to \$80,625,000.

#### 1.10.2.3 Rebuilding the housing units in the regions of those displaced

The rebuilding process varied from one region to another. The reconstruction of the Central District of Beirut, totally destroyed by the hostilities, is handled by Solidere. The reconstruction in the suburbs of Beirut was not conducted under a master urban plan. This led to a massive unplanned process of construction without any urban program. The reconstruction of destroyed villages has proceeded gradually, at a slower pace.

Example of reconstruction under modern principles -Downtown Beirut

Located in the historical and geographic core of the city, the Central District was ravaged by the Lebanese war (1975 - 1990), and the plans for its reconstruction will touch on virtually every aspect of reconstruction and development. In addition to the complete installation of a modern infrastructure, including roads, utilities, public spaces and marine works, the project will reclaim about 450,000 square meters from the sea, transforming a garbage dumping site into public gardens, recreational and cultural areas, and trade centers.

The project includes the reconstruction and development of 4.4 million square meters of parceled built-up space. Half of the built-up area is reserved for residential development.

To attend to the rich heritage of the city, detailed studies have preceded the work required to restore and renovate architecturally significant buildings and monuments. The reconstruction mission has been entrusted to a newly created joint-stock company « Solidere ». The objective of that company is to finance and ensure the execution of all infrastructure works in The Central District of Beirut for the account of the State.

This project is expected to lead to a high quality and attractive urban environment enjoying an array of different activities.

Example of disorganized reconstruction -The suburbs of Beirut

During the war and with the absence of State control and with the inflow of displaced waves of population, construction of residential dwellings mushroomed in the suburbs of Beirut without any regulation or urban principles. As a matter of fact, a large number of violations were made with regard to the building and town planning codes.

Examples of such divergences include : building on government-owned land, the invasion of the public sea front, construction on green spaces, exceeding the legal number of floors, and not abiding by the region's architectural and urban zoning requirements.

Besides, those newly constructed buildings were not equipped with the most basic infrastructure; consequently sewage systems were missing, drinking water was insufficient, electricity not connected, etc...

With the end of the war, the Government is trying to regulate this situation, but because of the very high cost of the operation and the severe damage

caused by squatters and illegal constructions, the reconstruction process under modern principles will be difficult to execute and will be very expensive.

Conditions for a global reconstruction under modern principles

The reconstruction of a village or a city requires the participation of many actors within a global development plan. The most important actors in the reconstruction process are the State, architects and engineers, the owners of the housing units established in the area, the Municipality and other organizations.

The role of the State is to define the priorities and coordinate the activities of all the actors.

The role of the Municipality is to determine a global urban plan and ensure that it will be respected.

The role of the architects is to design buildings or houses that blend with the urban characteristics of the village.

The role of the contractor is to build or restore houses or buildings according to new and modern techniques of construction in order to guarantee the durability and the quality of the building.

Finally the role of the other organizations is to extend help for the achievement of the various goals either financially or technically.

Moreover, a reconstruction process must take into consideration all the aspects of the life of individuals and communities and guarantee all types of public services such as educational institutions, health centers, job opportunities and leisure activities.

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Office of the Minister of State for Administrative Reform  
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