



Rural Context in Lebanon

Regional Initiative for Promoting Small-Scale Renewable Energy
Applications in rural areas of the Arab Region
Focus Group Meeting- March 13, 2019

Jessica Obeid

ESCWA Consultant



Lebanon Administrative Divisions

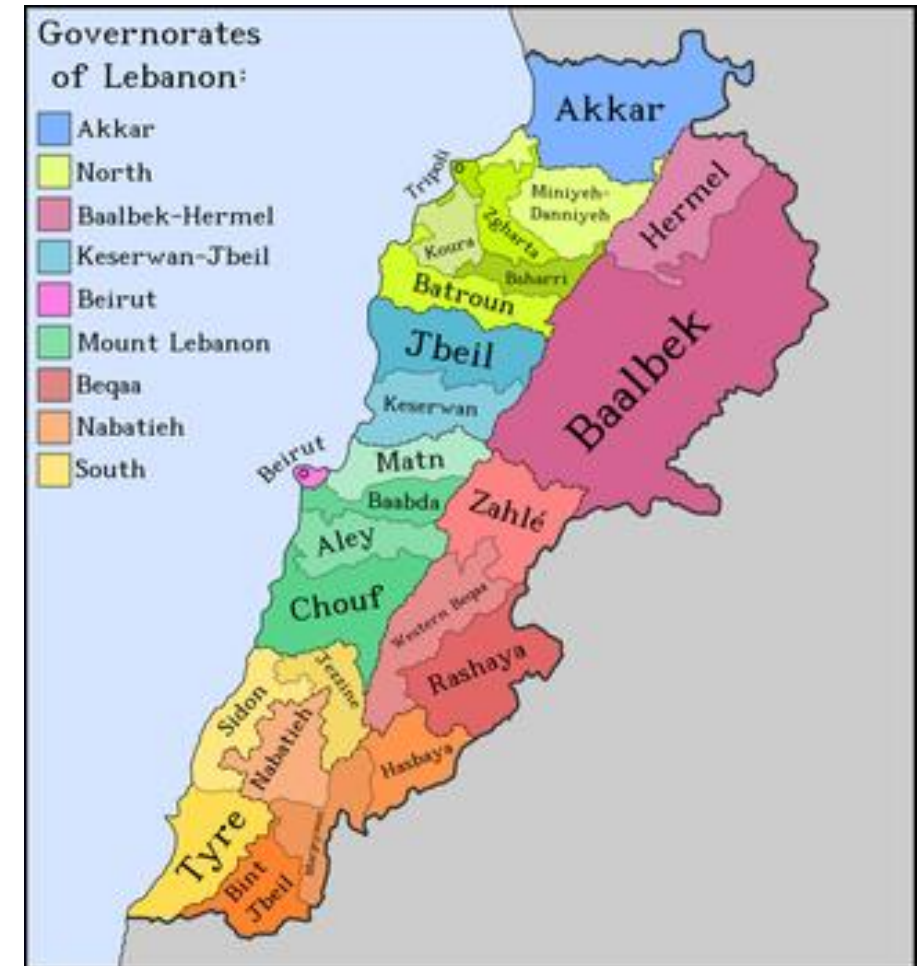
The population of Lebanon is at 6,074,874

An increase by 28 percent in less than five years due to the influx of Syrian refugees.

Administratively, the country is divided into 8 governorates; soon to be 9.

They were initially 6 governorates as per the decree no 116: 1959, switched to 8 in the 2004 amendment.

A new amendment for a 9th governorate was recently issue; pending its implementation.




Socio-Economic Indicators



	2017	2016
GDP	56.7 billion USD (in 2018)	54.2 billion USD (in 2017)
GDP per Capita		12,013 USD (2017)
Debt to GDP Ratio	152 percent	148 percent
GDP Growth	1.5 percent	1.7 percent
Fiscal deficit	- 9.3 percent of GDP	
Inflation Rate	6.5 percent	<i>(highest in five years)</i>
Average Inflation Rate	3.1 percent	
CPI	107.23	
Economic Activity rate	48 percent (in 2009) for the population aged > 15 years	
Unemployment Rate	15-25 percent / reported elsewhere as 40 percent	
	Job creation is dominantly in low productivity activities	

Socio-Economic Indicators

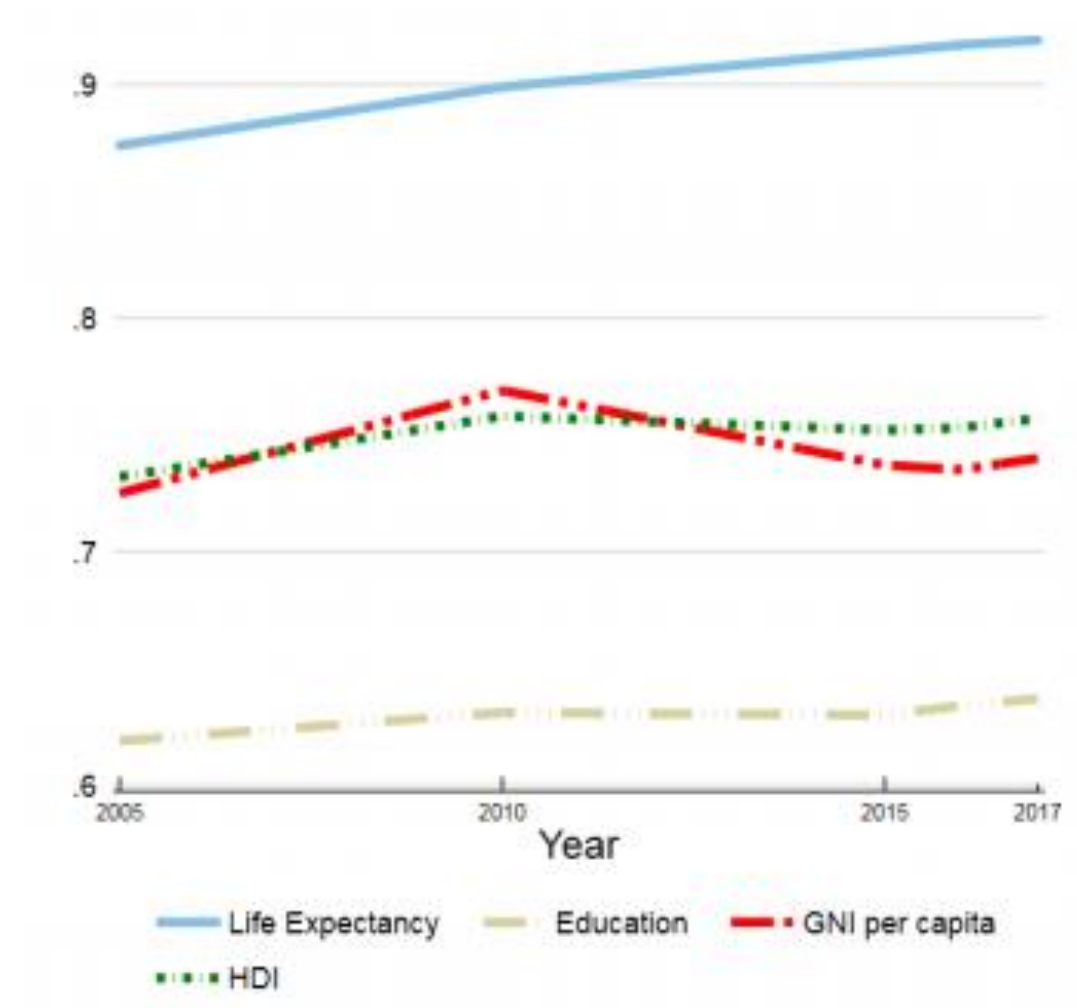


	2017	
Human Development Index	0.757 	high human development category
Human Development Index Rank	80 out of 189 countries	(by contrast, Jordan's HDI is 0.735)
Gender Inequality Index*	0.381	
	85 out of 160 countries	(by contrast, Jordan's rank is 108)
Poverty rates	27 % live below 3.15 USD/ day and 7 % live below 2.40 USD/ day	
Unemployment Rate	15-25 percent / reported elsewhere as 40 percent	
	Job creation is dominantly in low productivity activities	
Adult Literacy Rate	89.1 percent (2009)	
	Gender parity is achieved at primary level	
Education	38 percent of total households in Lebanon have at least 1 person holding a university degree	

* reflects gender-based inequalities in three dimensions – reproductive health, empowerment, and economic activity

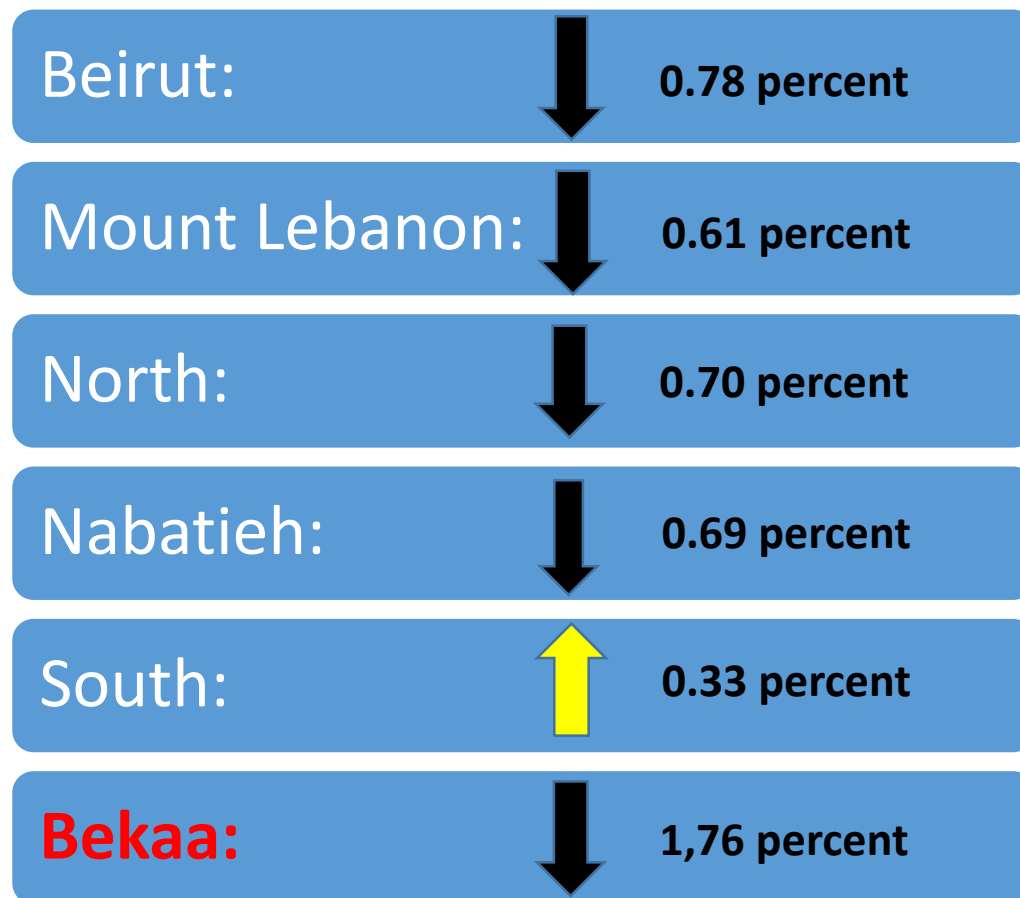


Trends in the indicators of Lebanon's Human Development Index between 2005 and 2017

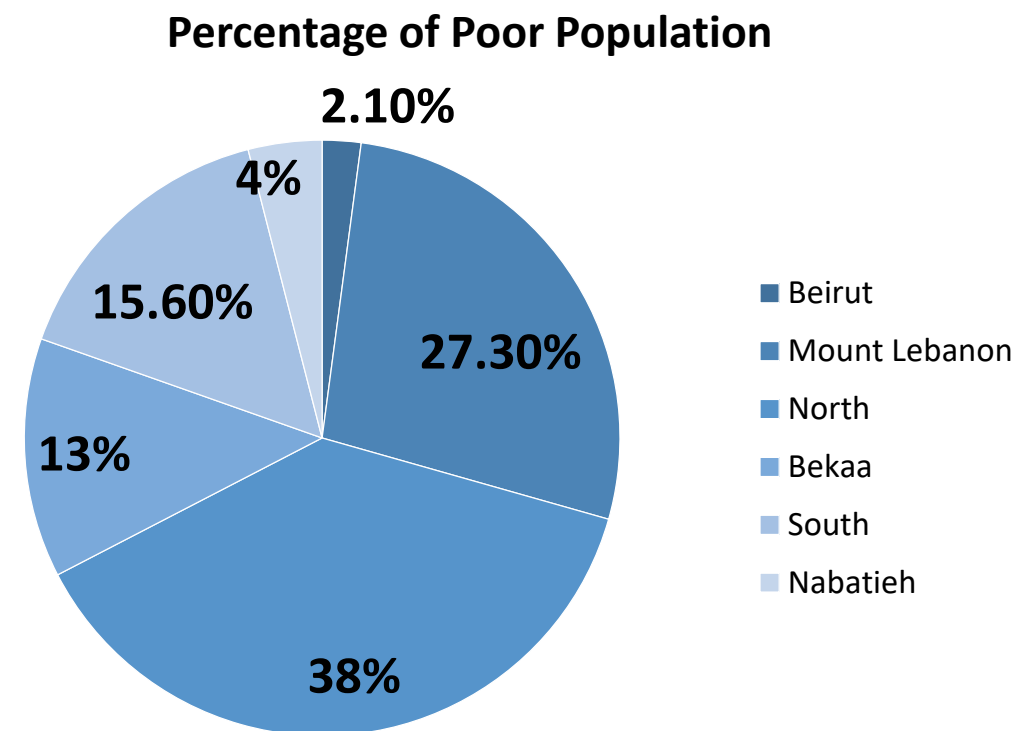




CPI changes between Jan 2019 and Jan 2018



Source: CAS 2019



Source: UNDP 2004



Unemployment Rates

Beirut: 41 percent

Mount Lebanon: 21 percent

North: 45 percent

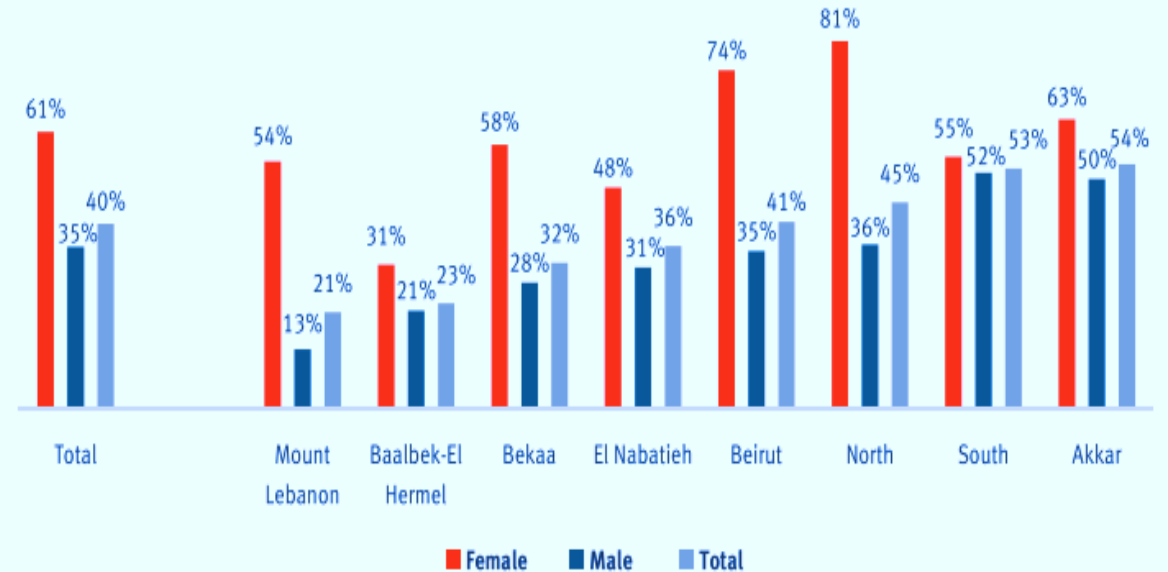
Akkar: 54 percent

Nabatieh: 36 percent

South: 53 percent

Bekaa: 32 percent

Baalback and Hermel: 23 percent



The highest unemployment rate is reportedly in Akkar, and the highest unemployment rate among women is in the North.



Defining the Rural Context

Approximately 40 reviewed articles and publications referred to rural areas in Lebanon without clearly defining them.

Globally, scholars tend to agree that there is no consensus on what defines a rural context.

Most Rural-Urban classifications however rely on the population density; such as the UK 2011 census rural-urban classification, the US US Department of Commerce 2010 Census, etc..



The United Nations Population Division defines urban as “de facto population living in areas classified as urban as per the criteria of each area or country”,

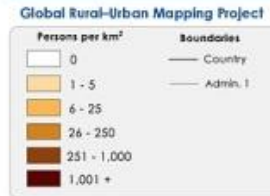
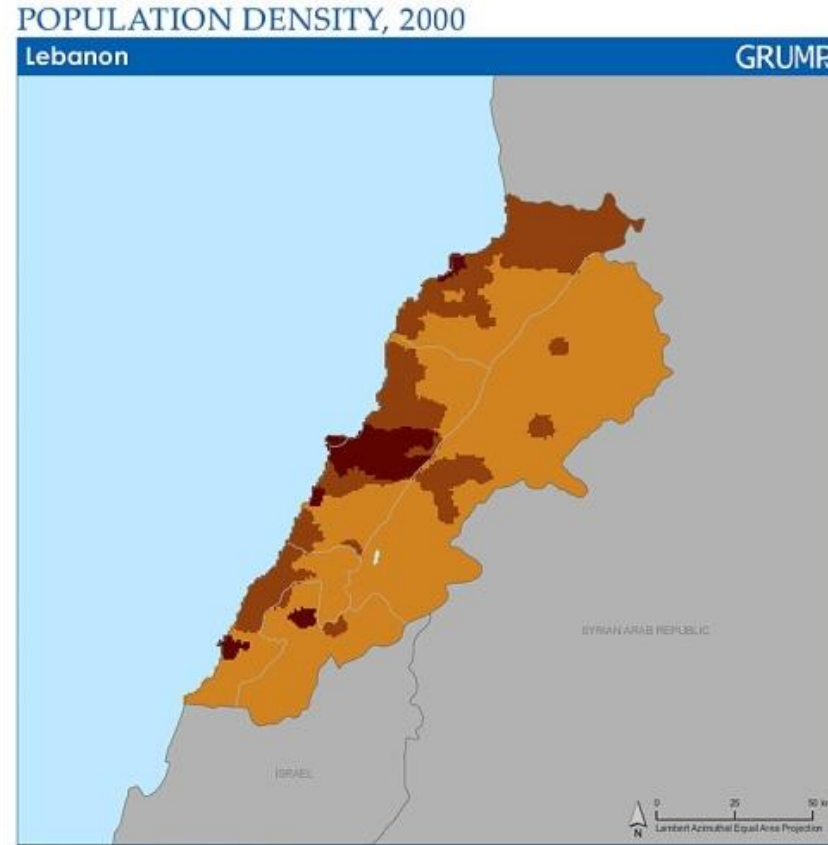
whereas rural refers to “de facto population living in areas classified as rural”.

However, in its World Urbanisation Prospects report, the United Nations does note that demarking both areas isn’t a simple process due to the complex context, and that the defining criteria vary between countries, and between different data sources within the same country.

The same is reflected in Lebanon where the most common definition for rural is a “non-urban area”.

The Global Rural-Urban Mapping Project maps the urban vs rural areas in Lebanon based on population density; where areas comprising > 251 residents per km² in map 1 are the same areas shown as urban in the map 2.

The maps are based on data from the year 2000.

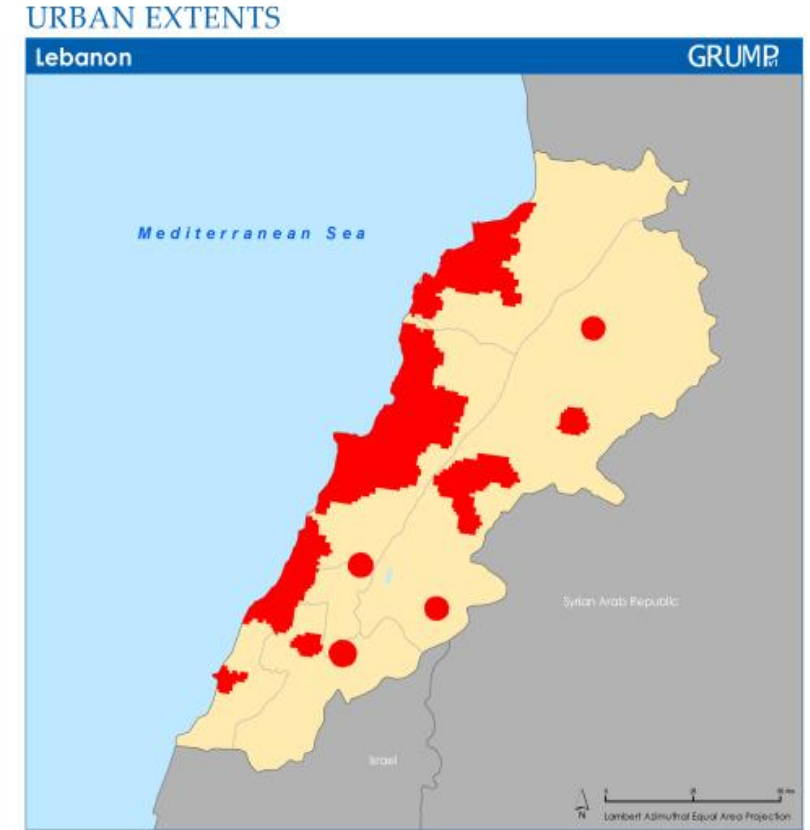


Population density measures the number of persons per square kilometer of land area. The data are gridded at a resolution of 30 arc-seconds.

Note: National boundaries are derived from the population grids and thus may appear coarse.

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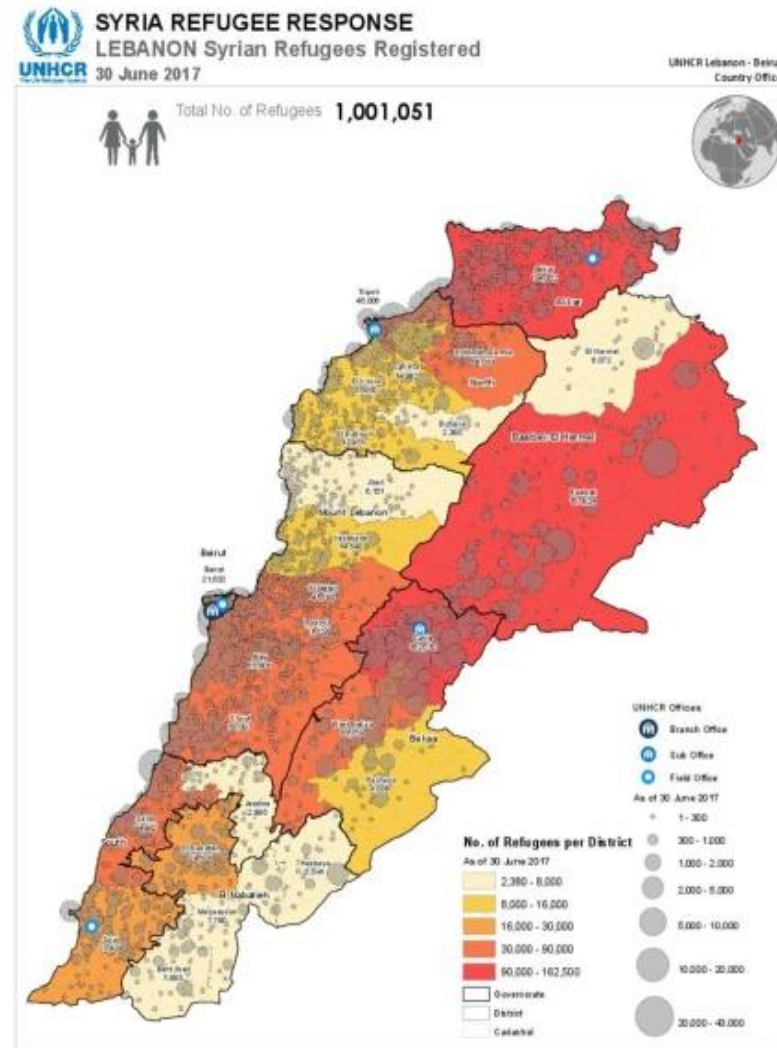
Urban extents illustrate the shape and area of urbanized places. Urbanized localities are defined as places with 5,000 or more inhabitants that are delineated by stable night-time lights. For poorly lit areas, alternate sources are used to estimate the extent of cities.

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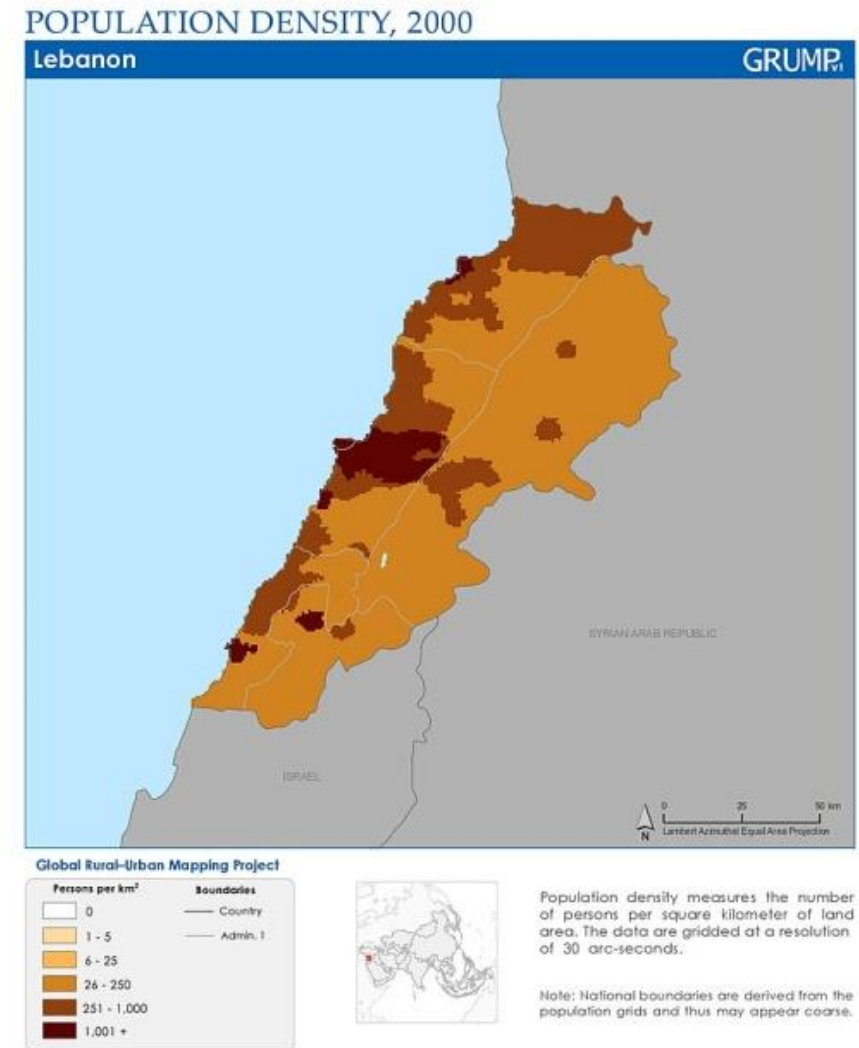
Yet, the influx of refugees has significantly impacted the population density, thus the latter shouldn't be a sole indicator of the rural context.



This map has been produced by the Information Management Unit of UNHCR based on maps and material provided by the Government of Lebanon for operational purposes. It does not constitute an official United Nations map. The geographical accuracy and the production of this map do not imply the approval of any person responsible on the part of the Government of the United Nations concerning the legal status of any territory, city or area or of its activities, or recognizing the sovereignty of its borders or boundaries.

Data Sources:
 Refugee population and location data by UNHCR as of 30 June 2017. For more information on refugee data, contact: im@unhcr.org or im@unhcr.org

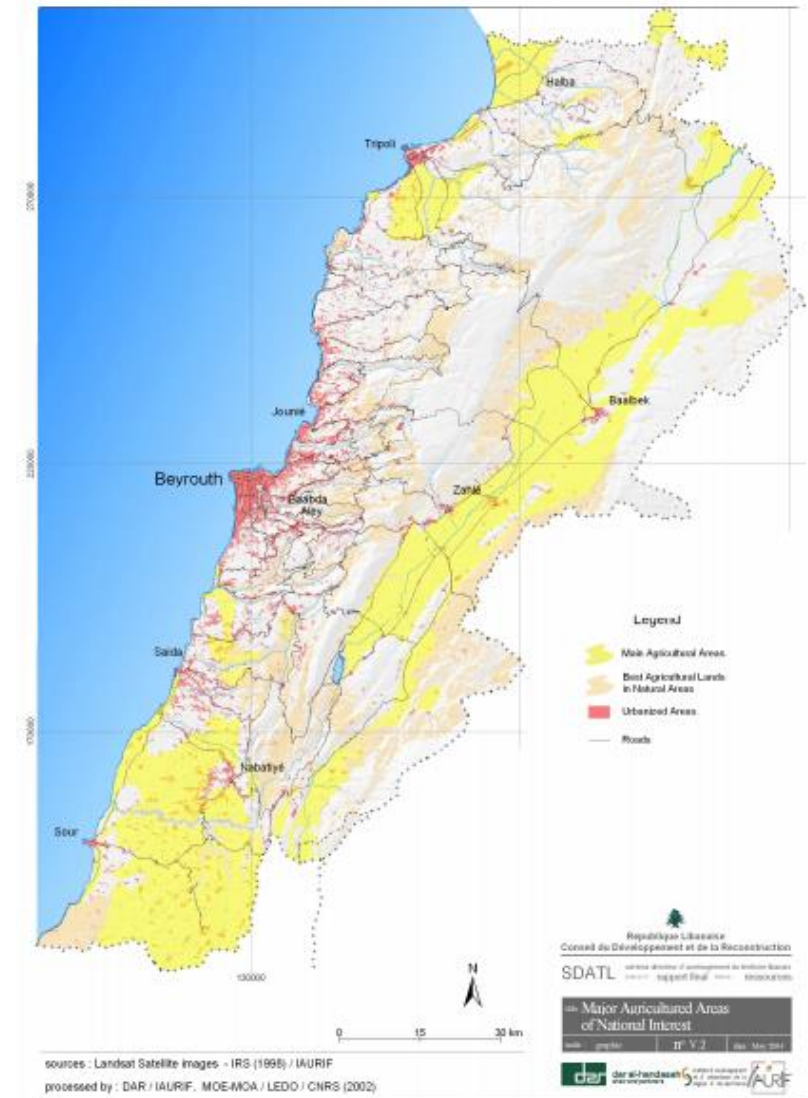
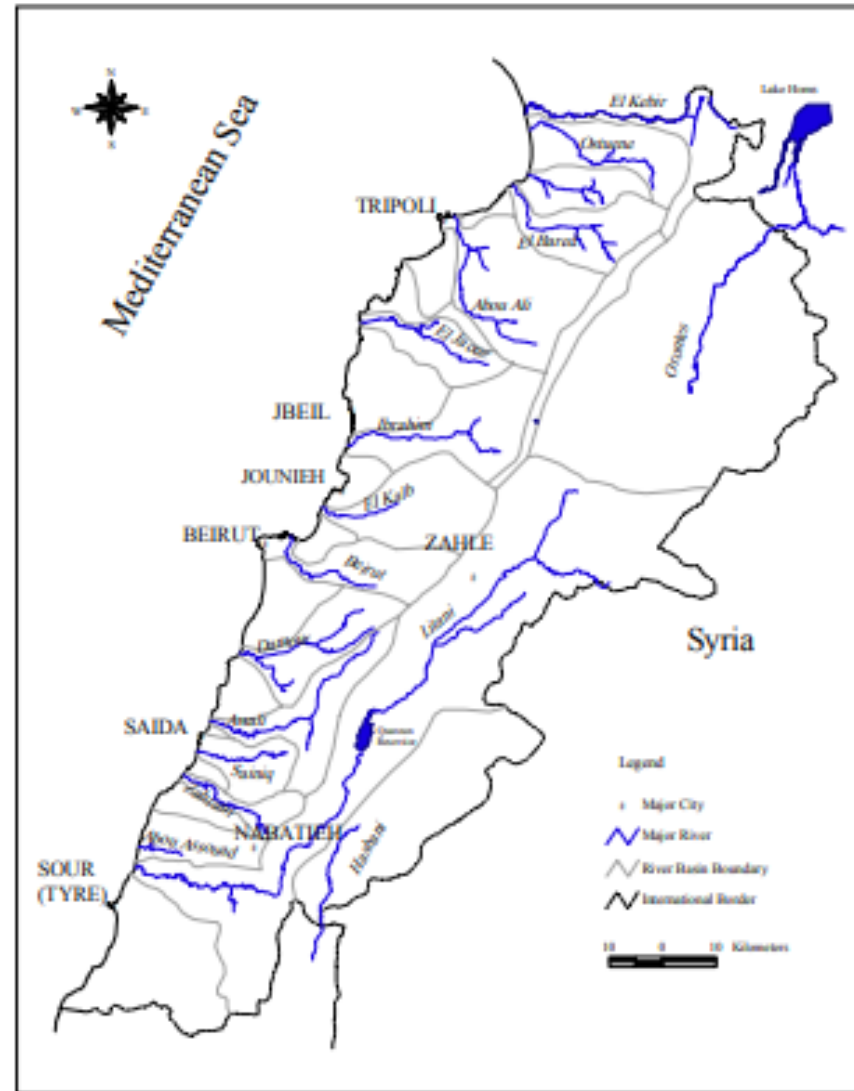
GIS and Mapping by UNHCR Lebanon. For further information on map content, contact: andrew.singh@unhcr.org or marion.fisher@unhcr.org



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One of the definitions of rural in Lebanon occurring in a government strategy is that “rural is directly linked to rural areas, countryside and agriculture”



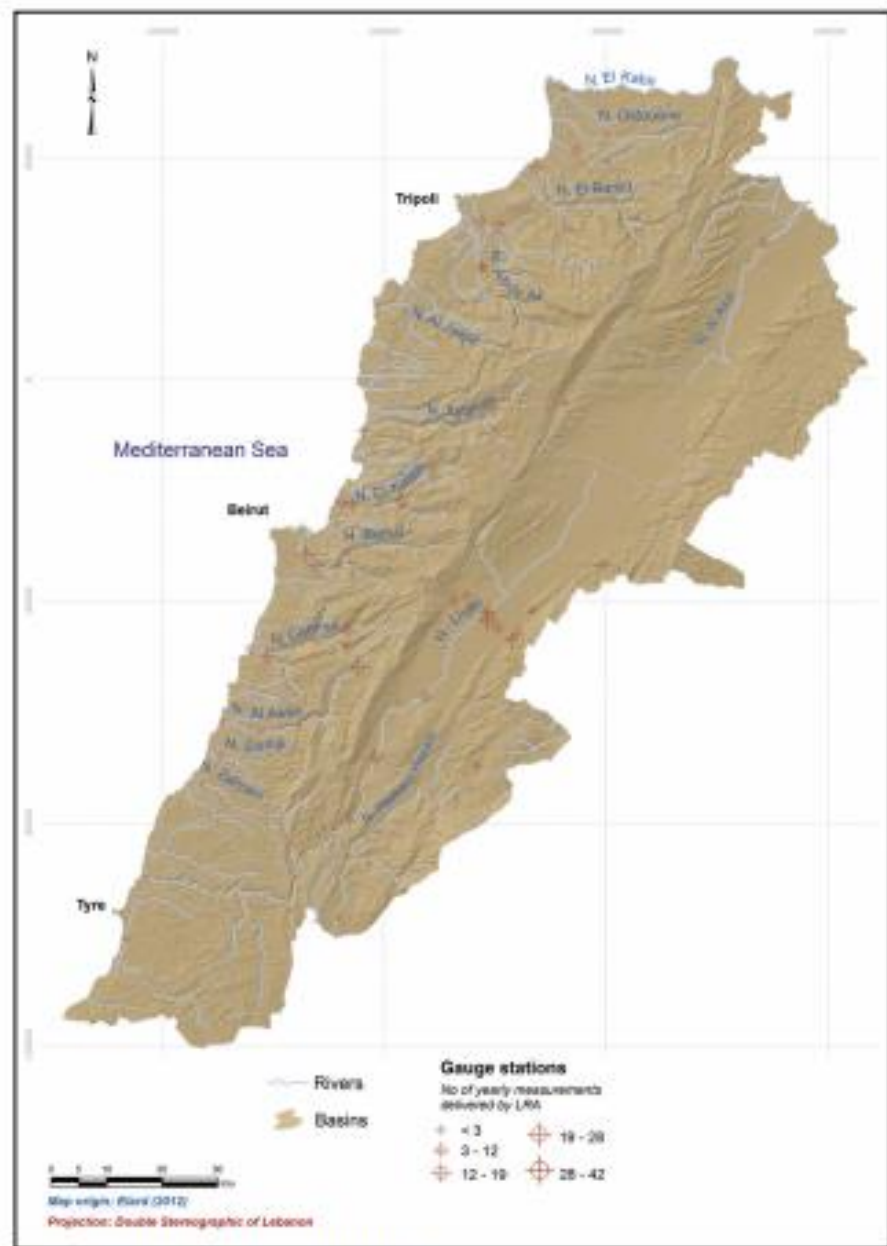


Figure 2-1 Spatial distribution of stations and length of records

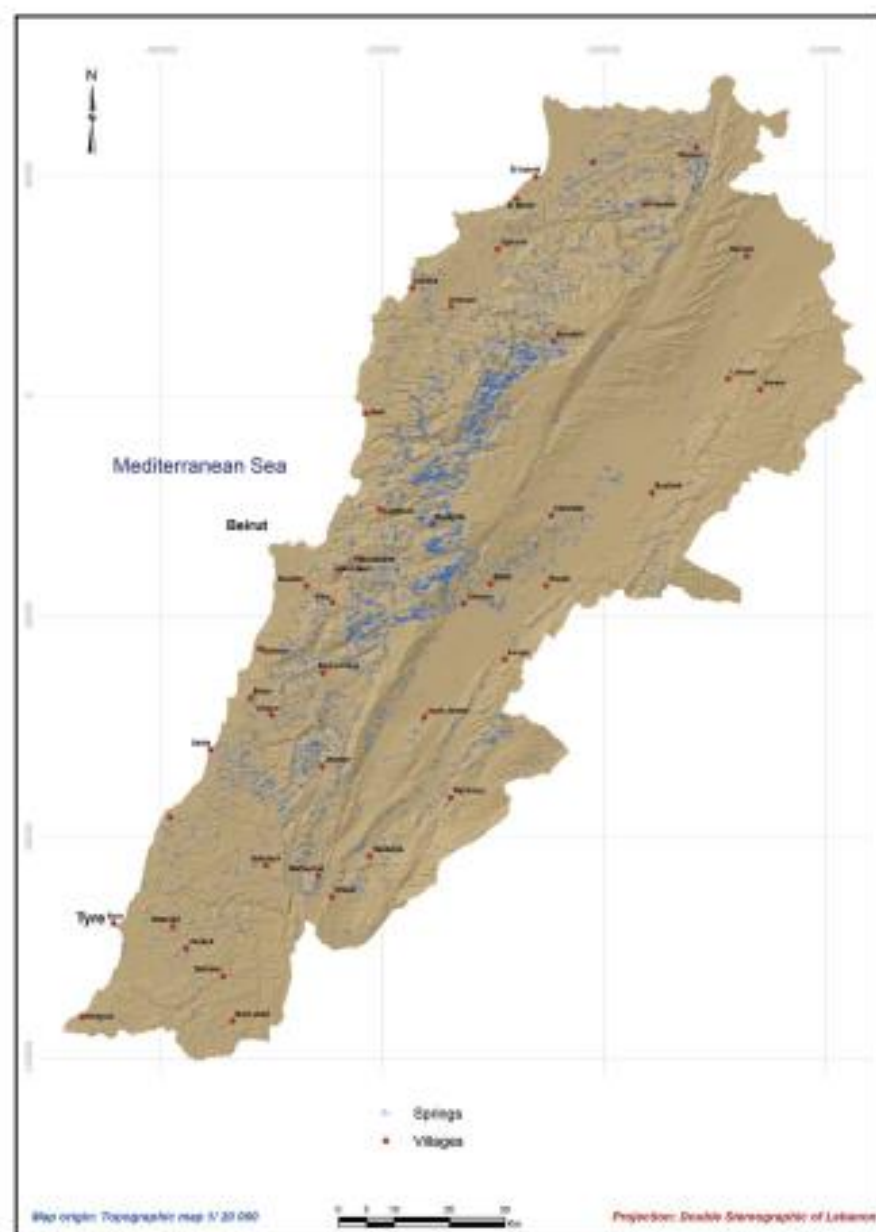


Figure 2.3 Map showing the springs of Lebanon identified from the 1:20,000 topographic map

Calculation of the Most Vulnerable Localities is based on the following datasets:

251 Most Vulnerable Cadastres
87% Refugees
67% Deprived Lebanese

1 - Multi-Deprivation Index (MDI)

The MDI is a composite index, based on deprivation level scoring of households in five critical dimensions:

- i - Access to Health services
- ii - Income levels
- iii - Access to Education services
- iv - Access to Water and Sanitation services
- v - Housing conditions

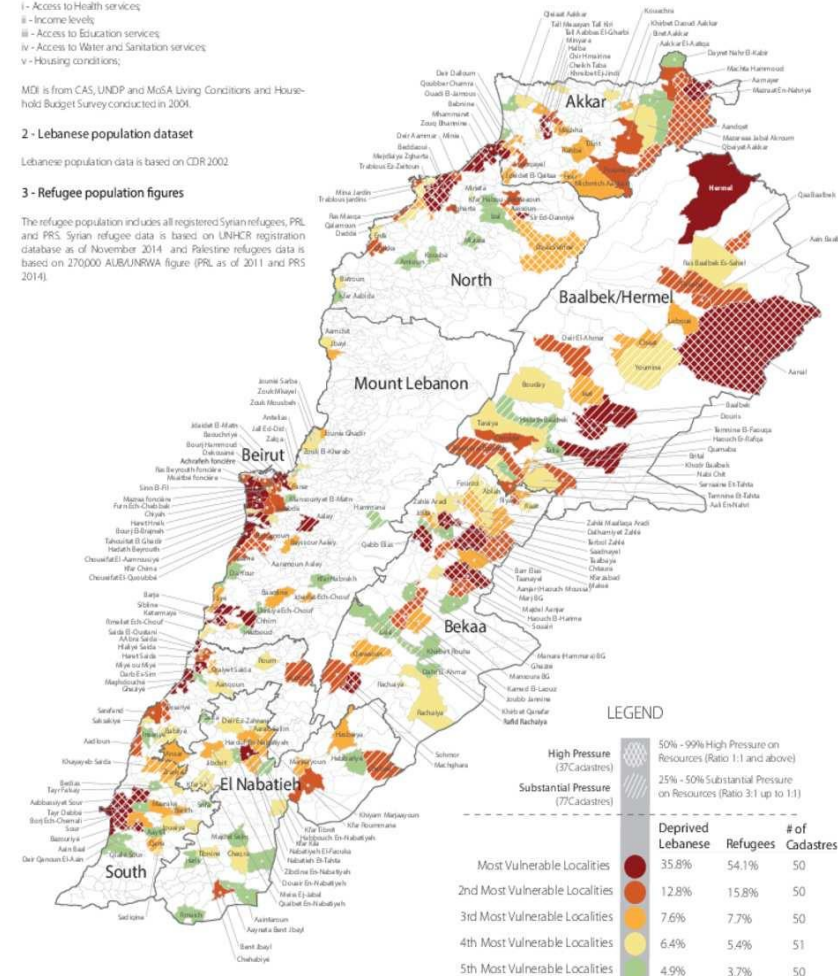
MDI is from CAS, UNDP and MoSA Living Conditions and Household Budget Survey conducted in 2004.

2 - Lebanese population dataset

Lebanese population data is based on CDR 2002.

3 - Refugee population figures

The refugee population includes all registered Syrian refugees, PRL and PRS. Syrian refugee data is based on UNHCR registration database as of November 2014 and Palestine refugees data is based on 270,000 ALBU/IRWA figure (PRL as of 2011 and PRS 2014).



Current the most common identification mechanism;
The Ministry of Social Affairs' 251 Most Vulnerable Cadasters in Lebanon

The Ratio of Refugees to Lebanese, by cadastre, is included to highlight the potential degree of population pressure on services and resources.

Rural Indicators



Rural Population	12% of Lebanon's population is estimated to be rural	
Active Population	Rural population accounts for an estimated 20-25 percent of the active population	
Poverty	Poverty is dominant in the rural areas of Akkar, North, South, Bekaa and Baalbek- Hermel	
	Rural poor are mostly small farmers, wage labourers, fishermen, and women heads of households	
	The most remote rural areas are characterized by low income levels	
Main Productive Activity	Agriculture , with its related subsectors	
	Agriculture is either the sole source of income or an additional source of income for the majority of the Lebanese rural population	
Women Activity	A study found that in 48% of surveyed Lebanese villages, the primary activity of women is in the agricultural sector, followed by education	

Agriculture



Highlights

- Agricultural workers are the poorest workers of any employment sector
- 40 % of farmers are considered poor, especially in the Bekaa valley
- Urbanization has further lowered the agricultural land use
- Agricultural production is dominated by traditional agricultural patterns

The sector suffers from lack of technology, high electricity prices and limited irrigation

Climate change would increase drought, decrease precipitation, and thus, reduce economic performance and exacerbate inequality

Agriculture consumes 64% of available water supplies

Lebanon's irrigation system remains traditional, and comparatively inefficient flood irrigation accounts for more than 70 percent of irrigation activity

Key figures

Total agriculture land area:

332,000 hectares (2010)

Total cultivated land area:

231, 000 hectares

Total irrigated area:

113,000 hectares

GDP Contribution:

4 percent (2016) = 1.5 billion USD

Agri-food Contribution to GDP:

additional 5 percent

Employment on national level:

8 % of labor force (2009)

Contribution to rural areas:

80 % of local GDP (McKinsey)

Employment in rural areas:

25 % of labor force*

**many are employed informally in the sector.*

Energy in Rural Areas



Lebanon is 99- 100 % electrified

Shortage of electricity supply of approx. 1,500 MW

Shortage equivalent to 12-18 hours of electricity black-outs especially in rural areas

Weak network resulting in high voltage drops especially in rural areas

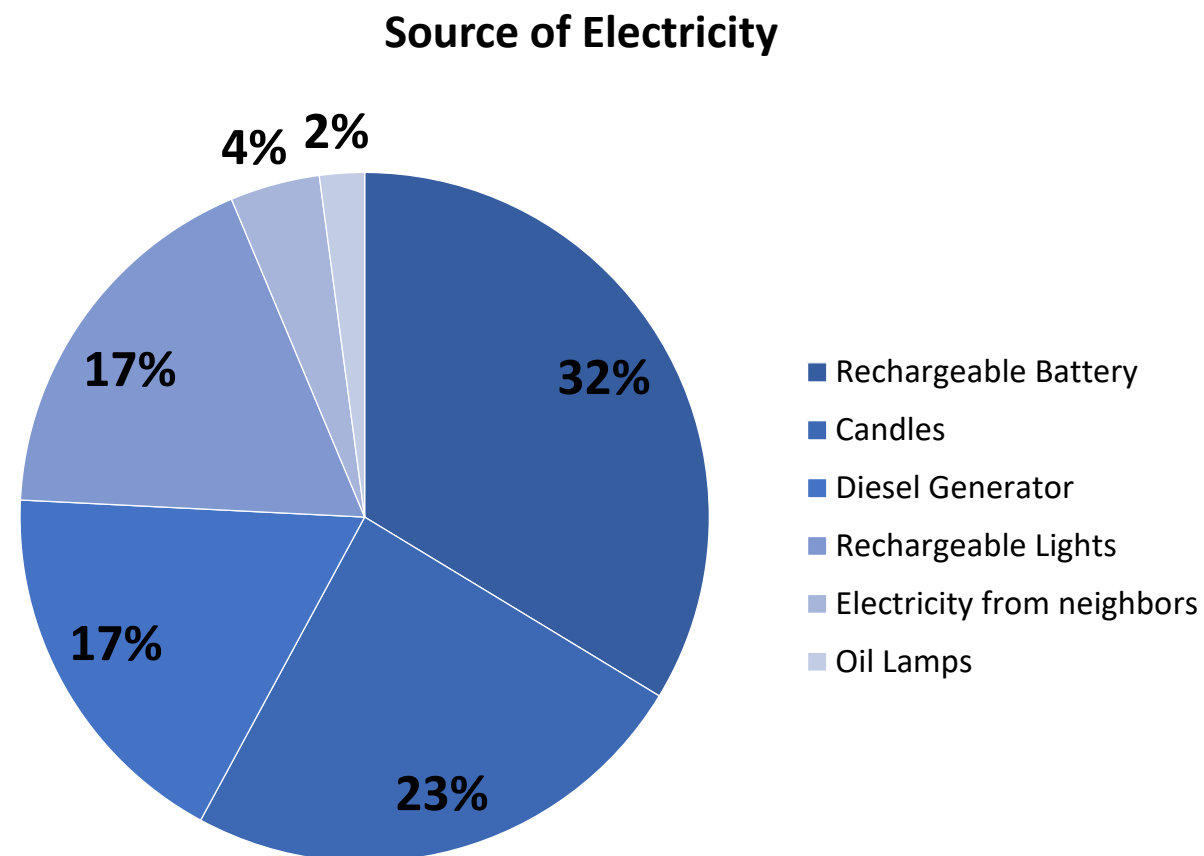
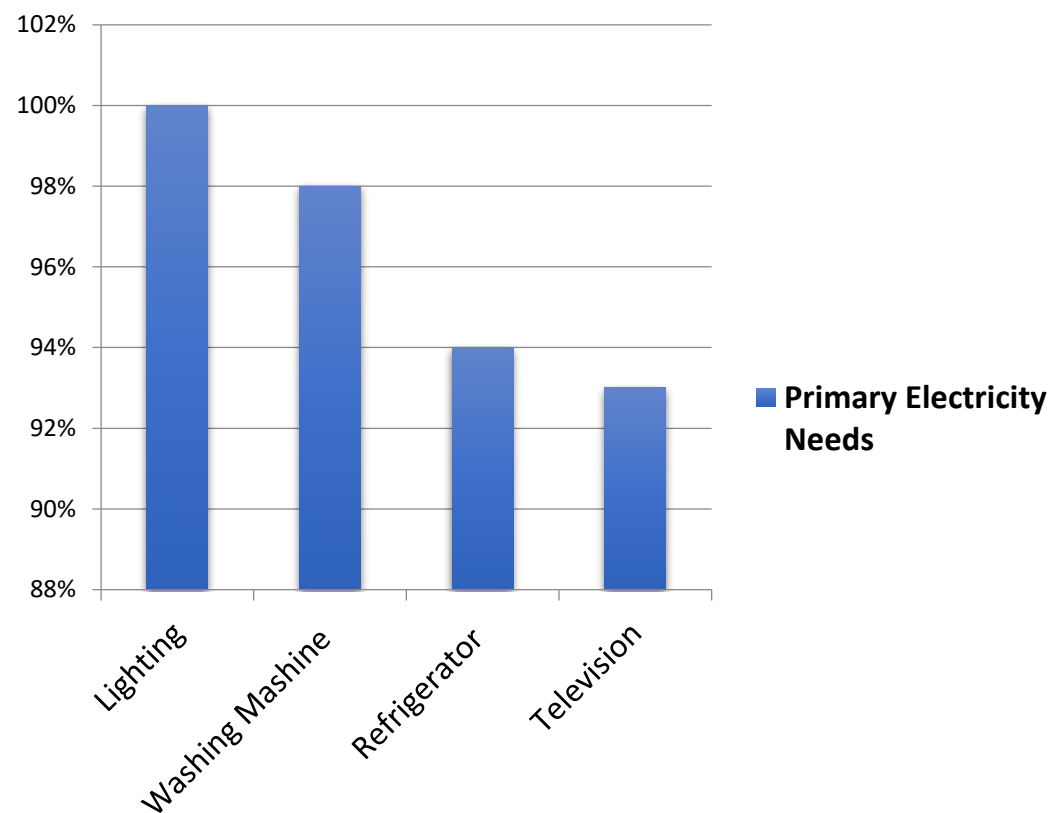
Voltage in rural areas on the borders gets as low as approx. 180 V, reaching 140 V in some areas

Higher electricity bills driven by the higher generator bills (when applicable)



CEDRO- UNDP Project surveyed 200 rural households on electricity source and primary electricity needs in 2016.

The households have on average 6.5 persons, and an average monthly income of 342 USD.



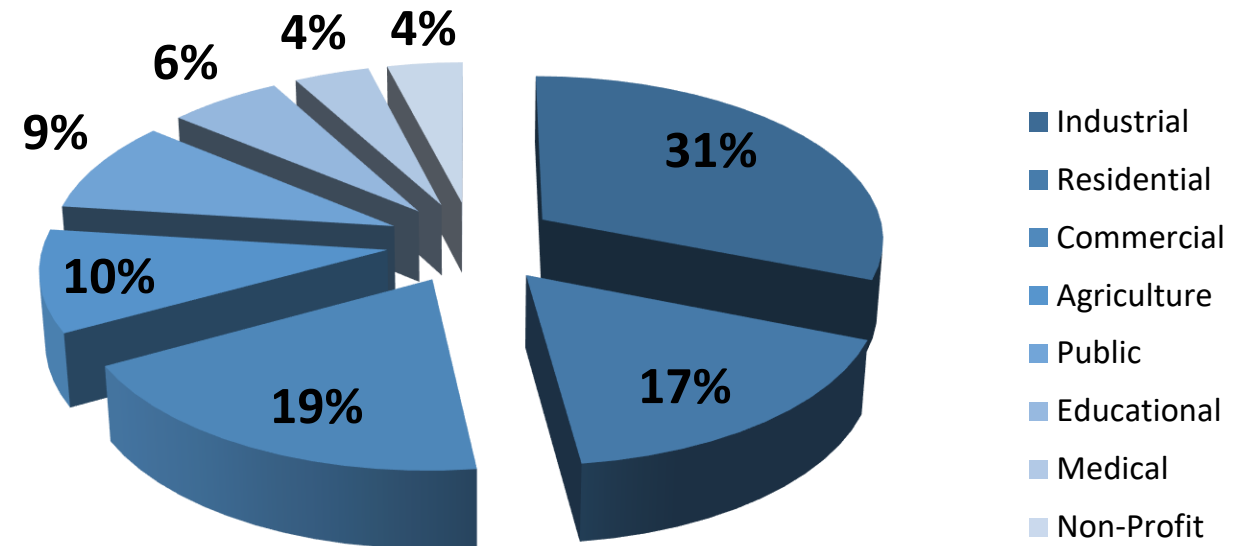
Solar Photovoltaic



Installed solar photovoltaic capacity in Lebanon grew from 330 kWp in 2010 to 35.34 MWp in 2017.

Solar PV in agriculture accounts for 10 percent of the total capacity, equivalent to 3.53 MWp.

Installed PV Capacity by Sector



Source: UNDP 2017



Source: UNDP



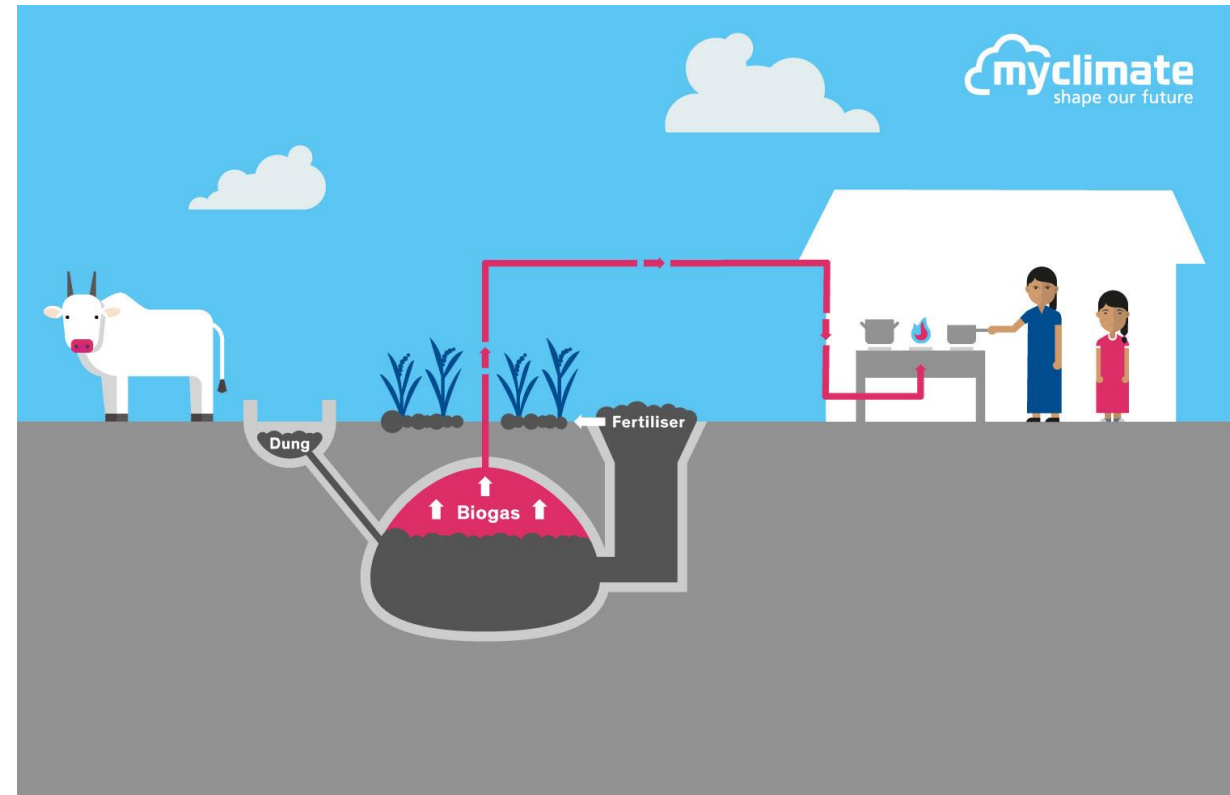
Source: ME Green



Bioenergy and Biogas

The traditional use of biomass in rural areas is significant; yet, there's need to develop sustainable bioenergy.

The use of biogas in livestock was assessed by UNDP in 2017 and was found to be expensive at the time, especially due to the lack of investments in the technology in the country.





Pillars for the Project's Identification

- Relatively vulnerable rural area
- Availability of natural resources; agricultural land, springs, rivers...
- Infrastructure and ease of access
- Human resources and active population
- Availability of productive activities, with growth potential
- Active participation of women in the labor force (or potential)
- Low security risk
- Strong local governance; municipalities
- Active NGOs



Thank You