

MAACHOUK
NEIGHBOURHOOD
PROFILE & STRATEGY
Tyre, Lebanon

FOREWORD

On behalf of UN-Habitat Lebanon, I would like to express our deep appreciation to the Swiss Embassy in Beirut - Swiss Cooperation Office, for their generous support, which made this document possible. Our acknowledgement goes to the Municipality of Tyre and the Union of Municipalities of Tyre Region for their commitment in facilitating the work of the team, contributing to the provision of data and reviewing drafts.

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Country Programme Manager at UN-Habitat Lebanon

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NEIGHBOURHOOD PROFILE PURPOSE

A neighbourhood profile is a multi-sectoral, multi-cohort spatial analytical tool to improve the urban crisis response in poor neighbourhoods in line with the Lebanese Crisis Response Plan 2017-2020 and the UN Strategic Framework for Lebanon 2017-2020.

UN-Habitat produces complementary city* and neighbourhood profiles that each lead to strategy formulation and project implementation. Neighbourhood profiles inform targeting for humanitarian organisations and local authorities. They also contribute to building a national database of comparable data that can be used for better understanding and monitoring of urban dynamics in the most vulnerable urban pockets that city and district averages are blind to, and of how these relate to their wider urban contexts.

METHODOLOGY

UN-Habitat neighbourhood profiling consists of three phases:

Phase 1 comprises a field assessment in a two-part process. Part one is to identify and record the condition of the buildings, the basic infrastructure services, and all commercial activities, on a base of a comprehensive visual inspection. Part two involves a population count by residential unit based on open-ended interviews with key informants for each building. Information is collected using GIS-based mapping and systematic questionnaires.

Phase 2 consists of conducting a series of focus group discussions and key informant interviews with residents, local public officials (mukhtars), business owners, school principals, healthcare managers, religious figures, and (I)NGO representatives. The selection of focus group participants takes into account factors such as age, gender and nationality.

Phase 3 entails presenting the findings to municipal representatives and community members in order to build consensus regarding problems and opportunities. The findings are refined based on feedback from this participatory stage. This approach ideally results in a mutual agreement on problems including capacity gaps and priorities.

NEIGHBOURHOOD STRATEGY PURPOSE

The Neighbourhood Strategy is a spatial and thematic phased response plan that is informed by the outcomes of the Neighbourhood Profile (NP) (UN-Habitat, 2016) for the same area.

UN-Habitat Lebanon produces neighbourhood strategies as a basis for fostering coordinated action between partners to the Lebanon Crisis Response Plan and local authorities to enhance the response in urban neighbourhoods. The strength of the recommendations derives from their area-based nature, as an alternative to cohort-based or sector-based points of entry. The area-based approach starts with a defined geography in which integrated multi-sector and multi-stakeholder action and engagement may be advanced, potentiating optimal targetting, holistic programming and operational efficiencies. Substantively, the strategies focus on improving living conditions through community stabilisation, the upgrading of basic urban services and housing, and improving capacity for effective governance. Recommendations are phased in order of identified needs, irrespective of the actual or likely availability of funds.

METHODOLOGY

Interventions have been formulated with input from local and municipal representatives, active stakeholders, and focus group discussions. The strategy suggests actions that respond to specific social, economic and urban challenges phased in the following format:

- **Immediate Response:** An intervention that should be undertaken within six months due to its criticality for social stability or to emergency need in the realm of basic urban service provision.
- **Short-term Response:** An intervention that should be undertaken within a year to mitigate further deterioration.
- **Mid & Long Term Response:** An intervention that should be undertaken within two or four years respectively, due either to its secondary or tertiary priority level or to the time frame needed for its execution. General strategic directions likely to be of ongoing relevance may also be outlined under this response phase.

*The City Profile is a continually updated geographical, statistical and multi-sectoral description and analysis of the urban area of a city, where the boundary is defined by the continuously built up area. Its purpose is to inform the urban crisis response, generate a national urban database, lead to a City Strategy, and inform strategic project identification.

Disclaimer :

The omission of potential interventions may be due to the selective scope of UN-Habitat and/or the current methodology, or may require further study.

RESOURCES FOR IMPLEMENTATION

Interventions proposed in this document require resources for implementation. There is a wide spectrum of resource types from the monetary to the non-monetary in nature and the local to non-local in origin.

Monetary resources can emerge from:

- Local NGOs or municipal budgets, or private sector organisations (e.g. through Corporate Social Responsibility spending).
- Non-local national/international donors and NGOs, and various public sector budgets.

Non-monetary resources can be:

- Competences such as local volunteered community-based capacities.
- Formal governance capital such as institutional powers vested in municipalities or regional/national state entities.

Monetary and non-monetary resources are to an extent interchangeable though interventions typically require a combination of both for implementation and sustainability. Monetary resourcing requirements set out against Urban Upgrading interventions are indicative estimates, and do not specify sources of capital. Further, costs may be open to value engineering; specifically, optimal coordination of interventions in time and space can maximise impact per unit cost.

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UN-Habitat Lebanon City and Neighbourhood reports are available online at <https://unhabitat.org/lebanon/> or <http://data.unhcr.org/lebanon/>.

For further information including GIS data, contact info.lebanon@unhabitat.org.

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LIST OF ACRONYMS & ABBREVIATIONS

2	EDL	Electricité du Liban
2	GUPW	General Union of Palestinian Women
2	LEB	Lebanese nationals
3	MEHE	Ministry of Education & Higher Education
4	MOEW	Ministry of Energy & Water
4	NRC	Norwegian Refugee Council
6	MOEW	Ministry of Energy & Water
8	NRC	Norwegian Refugee Council
8	NRC	Norwegian Refugee Council
9	PARD	The Popular Aid For Relief and Development
12	PRL	Palestinian Refugees from Lebanon
13	PRL	Palestinian Refugees from Lebanon
13	PRS	Palestinian Refugees from Syria
14	PRS	Palestinian Refugees from Syria
14	RTO	Regional Technical Office
14	RTO	Regional Technical Office
15	SLWE	South Lebanon Water Establishment
15	SLWE	South Lebanon Water Establishment
16	SR	Syrian Refugees
16	SR	Syrian Refugees
17	UNDP	United Nations Development Programme
17	UNDP	United Nations Development Programme
18	UN-Habitat	United Nations Human Settlements Programme
18	UN-Habitat	United Nations Human Settlements Programme
18	UN-Habitat	United Nations Human Settlements Programme
24	UNRWA	United Nations Relief and Works Agency
24	UNRWA	United Nations Relief and Works Agency

City is used to refer to the multi-municipality urban area focussed on Tyre, defined by the extent of the continuous built up area.

Tyre/Sour are used interchangeably by some, here the term Tyre refers to the multi-municipality city and the term Sour is reserved for the Municipality of Sour.

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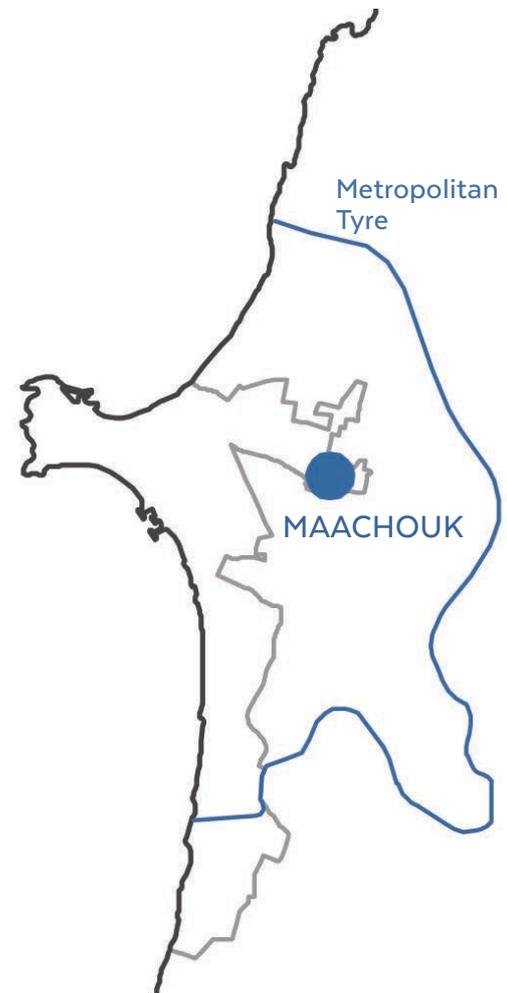
EXECUTIVE SUMMARY

The selection process of Maachouk neighbourhood was jointly conducted by local authorities, local community representatives, and UN-Habitat Lebanon. The selection criteria was: an impotent neighbourhood characterized by a poor socio-economic status, high refugee influx, and a deficient basic urban services rank. Boundary verification was carried out through a participatory approach using community-based knowledge, (I)NGOs experience, and municipal expertise.

Maachouk is a multinational residential neighbourhood that falls mostly within the boundaries of Sour Municipality. The formation of the settlement dates back to the early years following the Palestinian refugee influx (1948-1952), when Palestinians reached Maachouk and settled on public lands. Today, the neighbourhood accommodates diverse nationalities including Palestinians, Lebanese and Syrian refugees. Labour on a daily-basis constitutes the main source of income for inhabitants followed by agriculture. Maachouk comprises one to three-story residential buildings made of concrete with substandard construction methods and bad foundations.

The neighbourhood is administered by a Popular Committee appointed by the Palestinian Liberation Organization to operate and maintain the basic urban services within Maachouk. Infrastructure services are dilapidated, particularly sewage, stormwater management, and roads. Interventions targeting access to basic urban services in the settlement fall outside the mandate of The United Nations Relief and Works Agency for Palestine Refugees (UNRWA), restricted to the boundaries of the official twelve camps. At the educational level, kindergartens and primary education are provided within the neighbourhood, whereas intermediate and secondary schools are located in a close by area or at a distance from the neighbourhood. As for health services, Maachouk's residents faces several constraints such as affordability, accessibility, limited number of physicians and narrow range of specialisation.

This report summarizes the main findings based on a multi-sectoral analysis of primary data. It sets the foundation of a spatial and phased planning process, leading to the development of action oriented strategies to enhance urban crisis response. The strategies focus on improving living conditions through community stabilisation, the upgrading of basic urban services and housing, and improving capacity for effective governance.



PART 1. NEIGHBOURHOOD PROFILE





SPACE

The neighbourhood of Maachouk is located in the eastern parts of Tyre city, covers around 0.25 km² and falls within the boundaries of Tyre Cadastre. It is located 1 km away from the Burj El-Chamali Palestinian camp to the east, and 1,5 km away from El-Bass camp to the west. It borders the main highway to the south and the Green Plan¹ agricultural lands to the north. Maachouk is considered one of the most deprived neighbourhoods of the city.

Historically, the settlement was first established in 1948-1952, when displaced Palestinian refugees settled in Maachouk on public agricultural lands owned by the Lebanese State. Maachouk later expanded due to familial displacements. Archaeological findings show that the area was already populated in the time of the Phoenicians, Greeks and Romans. The neighbourhood is characterised by a circular hill, which is renowned for two historical Islamic Shrines dating back to the 18th century. Since the beginning of the Syrian crisis, Palestinian and Syrian families fled Syria to live in Maachouk, increasing the population by 26%.

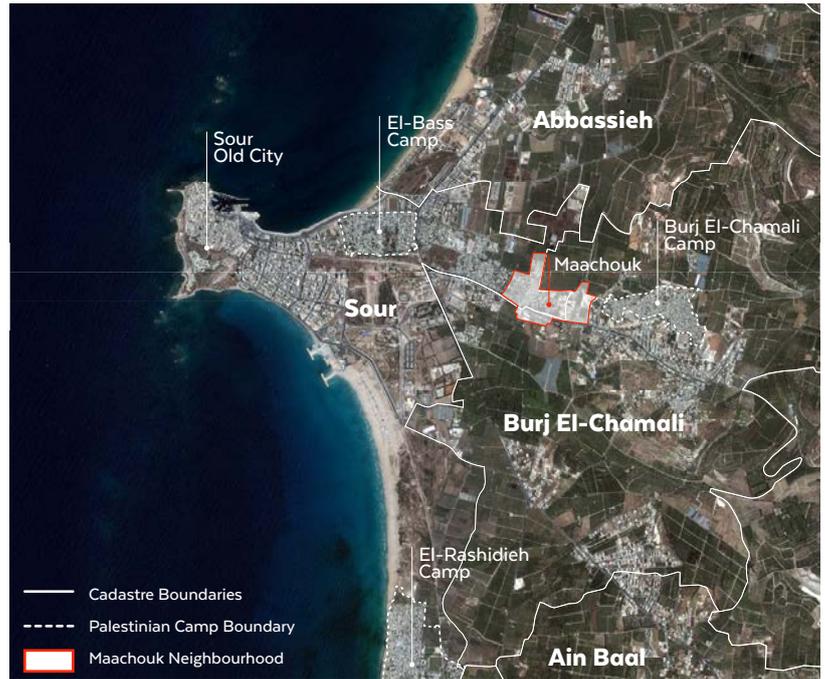
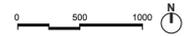


Figure 1 Maachouk neighbourhood in context of Tyre



NEIGHBOURHOOD TYPOLOGIES

Maachouk consists of four zones:

1. The central village-type structure on the hill:

A historical, congested built-up area on all sides of a hill, with a mausoleum at its top. The area is separated from its surroundings by streets, whilst within the area, access is only possible via narrow pedestrian walkways. The village is characterized by dense, low quality building structures with poor provision of urban services.

2. The main road: The area is limited to the south by a regional main road connecting Sour to Burj El-Chamali. The road is framed by two-story warehouses and residential buildings, with wide spaces for parking and workshops on both sides.

3. Residential areas to the West and to the East: Adjacent to the hill, residential areas with two to three story buildings in medium condition stretch to both sides. The quality of the buildings and the open spaces is better on the western side whilst the area to the east is denser and less structured.

4. An industrial-artisanal area to the East: The density of this area is quite low with some workshops, warehouses, parking spaces etc. Within the many wide, open, unused, and thus badly maintained areas are some single standing new residential buildings and other poorly maintained lower structures.

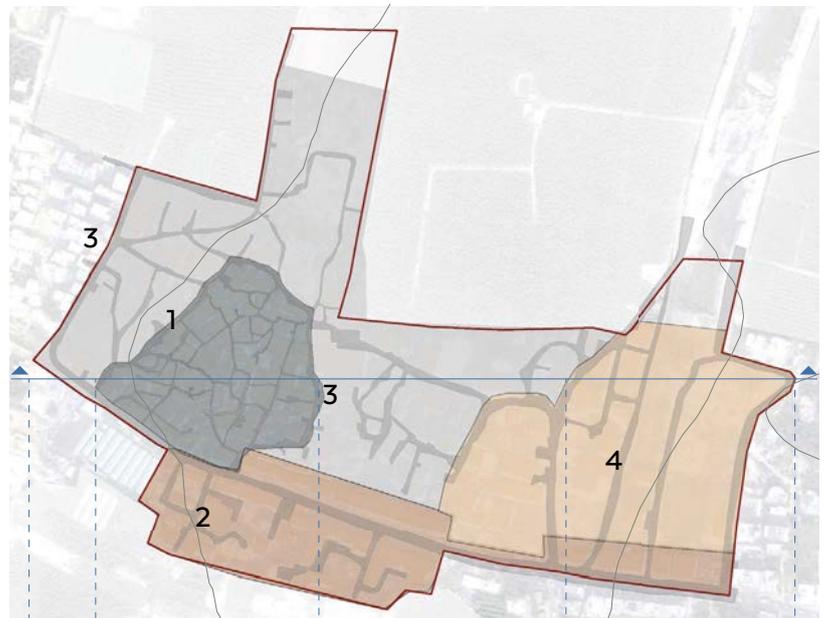


Figure 2 Maachouk neighbourhood zone typologies

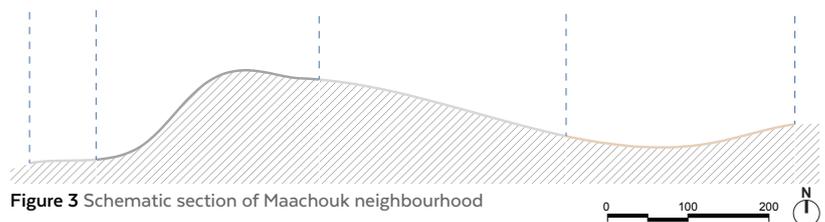


Figure 3 Schematic section of Maachouk neighbourhood

¹ The Green Plan falls under the authority of the Ministry of Agriculture. The Green Plan was established in the mid 1960s to implement a project for "the improvement of the Lebanese mountains", through land reclamation, irrigation and reforestation activities. <http://www.agriculture.gov.lb>

GOVERNANCE

STATE / FORMAL

The majority of Maachouk falls within the Municipality of Sour, with the exception of its eastern side and the main road's southern side, which falls within the jurisdiction of the Municipality of Burj El-Chamali. The entire neighbourhood is located in Tyre district and belongs to the South Lebanon Governorate. Maachouk currently embodies a diverse social pattern ranging from Lebanese, Palestinian Refugees from Lebanon (PRL), Syrian refugees, and Palestinian Refugees from Syria (PRS).

Maachouk is regarded as one of 42 Palestinian Settlements out of camps, also known as 'gatherings'², yet not one of the 12 official camps. UNRWA therefore does not have the mandate to provide infrastructure services (water, sewage, electricity, road networks and shelter), the agency does however provide social services e.g., education, health, social protection, etc., to Palestinians from the neighbourhood.

State governance structures, within the Maachouk neighbourhood, are present locally with one Mokhtar, two municipalities, and a Union of Municipalities (UoM). Furthermore, the Lebanese central administration has not offered a policy response to the Palestinian refugees since the start of

the major incursion of displacement from Palestine in 1948. The Lebanese Government regards refugees as 'guests', generally barred from gaining Lebanese nationality or work permits in all but a few sectors. PRS and Syrian refugees are subject to the same restrictions. However, there has been a naturalisation effort in 1994 for residents of the "Seven Villages" - villages at the southern border zone between Palestine and Lebanon- of which some now reside in Maachouk and constitute a part of the neighbourhood's Lebanese population³.

NON-STATE / INFORMAL

Maachouk is administered by the Popular Committee (Lajnee Shaabiyah) appointed by the Palestinian Liberation Organization. It is denoted as the most actively involved body of informal governance within the neighbourhood. Tyre Municipality does not usually provide services in Maachouk; in return, no taxes are collected. As an alternative, the Popular Committee is responsible for providing basic urban services and maintenance of infrastructure services such as wet utilities rehabilitation and solid waste management. The Popular Committee has limited capacity to perform its role with lack of financial resources and/or human skills. A local fund was created by the Popular Committee to cover

public expenses in the neighbourhood, charging households 5,000-10,000 LBP per month. Coordination between the Popular Committee and Tyre Municipality is limited to addressing urgent problems. Good relationship exist between the Popular Committee and Tyre Municipality.

In the 1980s, Hezbollah and Amal Movement, two of the most dominant Lebanese political parties in the south, found interest in Maachouk; especially due to the migration of poor Shiite families who came from neighbouring villages to settle down in affordable Maachouk. That led to a demographic change that altered the governance dynamics, whilst the Lebanese parties, Hezbollah and Amal, gained representation in the relevant local authorities, resulting in increased state-governance involvement in the neighbourhood's affairs.

Maachouk is suffering a decrease in the quality of already deteriorated services due to the Syrian influx, such as electricity, waste management and water provision. This influx did pave the way for (I)NGO's and international organizations such as UNDP, UN-Habitat, NRC and PARD, which were already active in Maachouk, to be rigorously tackling some issues related to stress on services and socio-economic development.

SERVICE PROVIDERS

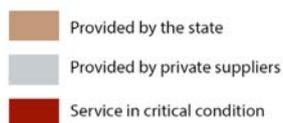
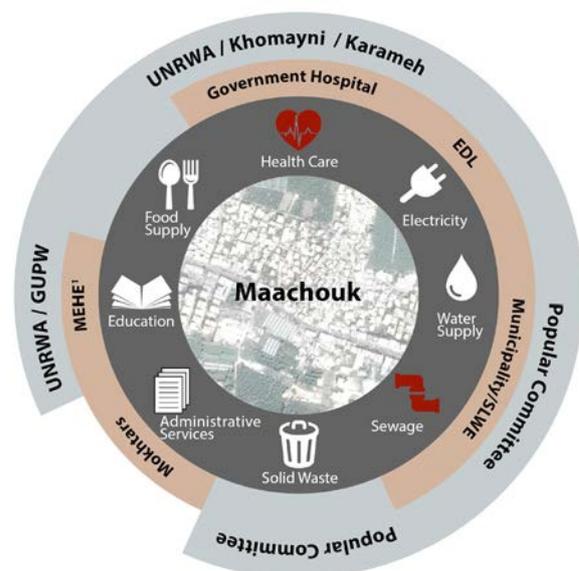


Figure 4 Public/private providers per service



² UN-Habitat uses for Maachouk the term "Neighbourhood" and not "gathering". First, Palestinians are also to be found living outside of both camps and 'gatherings', integrated less visibly in the host community's residential fabric. Second, the term 'gathering' focusses attention on one vulnerable group in the out-of-camp urban fabric which is accommodated in poor, often mixed-nationality residential neighbourhoods, which also include host populations and other displaced and migrant groups. The implied cohort-based focus is increasingly partial following the recent influx of Syrian refugees.

³ Kaufman (2006). Between Palestine and Lebanon: Seven Shi'i Villages as a Case Study of Boundaries, Identities, and Conflict - Middle East Journal.

POPULATION

POPULATION COUNT

The population was surveyed by residential unit based on key informant interviews for each building. The residential unit is a self-contained space used for a residential purpose by one or more persons and household(s). It could be an apartment, rooftop add-on, studio, workshop, basement etc. The Maachouk population survey (Dec 2016) suggests

an all-cohort resident count of 3,374. Of these, almost half were PRL, and a quarter SR. The average occupancy per residential unit is 3.3 amongst PRL and greatest amongst PRS at 7.3 residents/unit.

Maachouk is now considered as one of the densest neighbourhoods in the city.

From the 1980s, it had a high inflow of low income Lebanese families from neighbouring villages. Moreover, since the Syrian crisis in 2011, many Syrian and Palestinian refugees have been displaced from Syria and settled in the neighbourhood.

3,374

Total Resident Population in Maachouk



Source: UN-Habitat Lebanon, December 2016

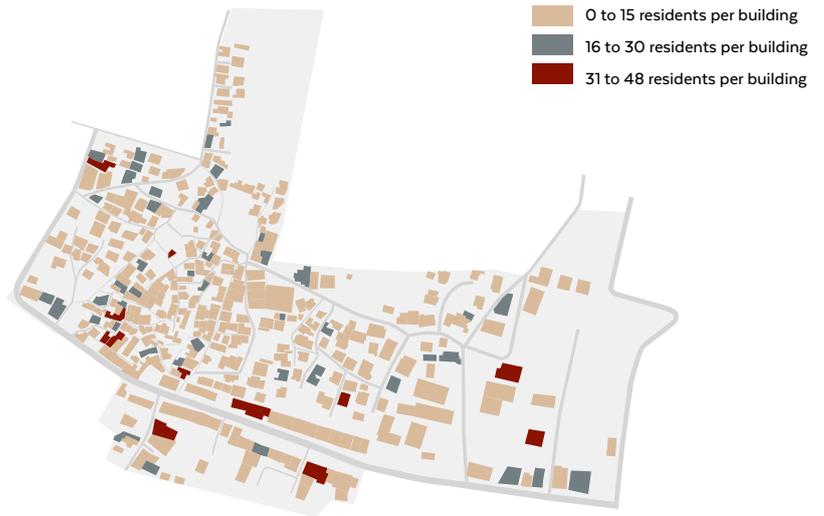


Figure 5 Population in Maachouk

Figure 6 Residential density of buildings

POPULATION DISTRIBUTION BY RESIDENTIAL UNIT

Population distribution with respect to number of residents per residential unit, showing actual numbers and percentage breakdown between LEB, SR, PRL and PRS.

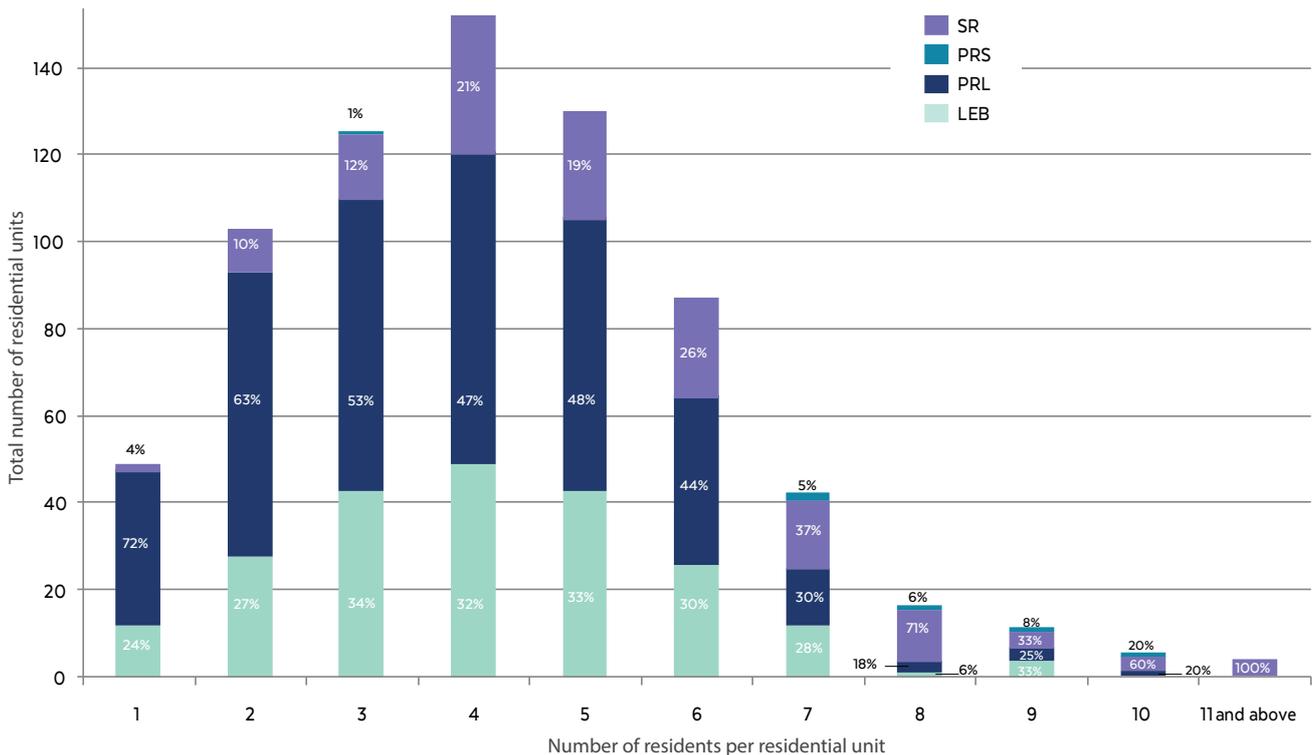


Figure 7 Population distribution by residential unit.

Number of residents/unit	LEB				SR				PRL				Total ⁴			
	🏠	%	👥	%	🏠	%	👥	%	🏠	%	👥	%	🏠	%	👥	%
1	12	5	12	1	2	1	2	0	43	10	43	3	57	100	57	2
2	31	13	62	6	11	7	22	3	78	19	156	10	120	100	240	7
3	53	22	159	16	18	12	54	7	73	18	219	14	145	100	432	13
4	59	24	236	24	32	21	128	16	89	21	356	23	180	100	720	22
5	45	18	225	23	25	17	125	16	71	17	355	23	141	100	705	21
6	29	12	174	17	23	15	138	17	43	10	258	17	95	100	570	17
7	12	5	84	8	16	11	112	14	13	3	91	6	43	100	287	9
8	1	0	8	1	12	8	96	12	3	1	24	2	17	100	128	4
9	4	2	36	4	4	3	36	5	3	1	27	2	12	100	99	3
10 & above	0	0		0	7	5	82	10	1	0	10	1	9	100	92	3
TOTAL	246	100	996	100	150	100	795	100	417	100	1539	100	819		3330⁴	100

Table 1 Population distribution by residential unit

🏠 Number of residential units

👥 Number of residents

TYRE POPULATION COUNT

Cohorts	Official Figures	Source
LEB ⁵	47,479	1997 figures adapted in LCRP (Government of Lebanon and the United Nations, 2017)
SR	8,147	UNHCR Leb 2015
PRL (camps)	41,200	AUB, UNRWA 2014
PRL ⁵ (outside camps)	4,000	UN-Habitat, UNDP 2014
PRS	2,586	UNRWA 2015
Total⁶	99,412	

Table 2 Population estimate for Tyre cadastre

As per UN-Habitat Tyre City Profile, population in the city is estimated according to the following:

Official cadastral figures for the various cohorts used by all partners to the Lebanese Crisis Response Plan (Government of Lebanon and the United Nations, 2016) suggest a total population of 99,412 for Tyre.

PRL living outside camps in Tyre cadastre are mainly concentrated in the two Palestinian “gatherings” of Maachouk and Jal el Baher. PRL living in Maachouk add up to 1533 inhabitants and constitute 38% of the total PRL population living outside camps in Tyre cadastre, shown in Table 2. It is worth noting that PRL living outside camps in Tyre only make up around 9% of the total PRL population. Figures indicate that Syrian refugees constitute 8% of the total Tyre cadastral population. Nevertheless, when analogized to a 24% Syrian refugee occupation in Maachouk, it is rendered evident that a high rate of Syrian refugees occupy the neighbourhood of Maachouk when compared to other neighbourhoods in the city.

⁴ PRS figures are excluded from this table due to their insignificant numbers compared to other cohorts where they add up in total to 44 residents.

⁵ The 1997 household survey on which this data set is based includes PRL outside camps. Therefore, the 4,000 PRL residing outside camps are assumed to be included in the Lebanese figures.

⁶ The total is the sum of LEB, SR, PRL (in camps) and PRS.

SAFETY & SECURITY

According to the field survey and focus group discussions, residents of Maachouk share the same living and safety concerns among all cohorts who live together in the neighbourhood. The precarious economic situation, lack of basic urban services, deficiency in healthcare and educational facilities, lack of recreational and open spaces, and vulnerability to tension during political conflicts all hinder safety.

The survey identified different causes to safety and security concerns:

SOCIAL COHESION

The 2011 and onwards refugee influx from Syria, posed stress on already poor social, economic and infrastructural services, thus creating tension between the host community (PRL and LEB) and the refugees (PRS and SR). A larger consumer base is utilising the same facilities, thus creating competition between original communities and the new refugees. Moreover, unemployment in the neighbourhood has increased with the influx of refugees from Syria, which increased competition on the limited, mostly day-to-day and informal jobs. Community members argue shortage of law enforcement, limitation in the capacity of local government and limited economic activities as main causes of tension, further engendered by low provision of community services, dependency on political parties, lack of basic urban services and poverty.

The Popular Committee is working on strengthening social cohesion between dwellers by providing urban services for all cohorts in the neighbourhood.

PUBLIC SPACES / STREETS

Social gatherings for both children and adults are limited to streets and around coffee shops. There is a lack of public open spaces due to the crowded urban fabric and lack of urban planning. Even social gatherings such as condolences take place on the streets next to the Popular Committee.

Key-informants claim that the physical fabric and street layout of the neighbourhood creates a sense of insecurity as streets are narrow and winding with lack or non-functional street lights. The feeling of insecurity is exacerbated because drug and alcohol addiction among the youth is reportedly on the rise. Agricultural lands around the neighbourhood are being used as safe environments by drug users.

SECURITY HOLDERS

There is a perceived absence of law enforcement to uphold security and safety. This is reflected in residents' reliance on the Popular Committee to respond to their security concerns and to resolve problems. The Popular Committee and other political parties have established an effective communication platform enhancing security measures in the neighbourhood.



Figure 8 Open space gatherings in Maachouk

- ① Empty land/Football field (Children & male youth)
- ② Street gathering (Children, male youth & elderly)
- ③ Cemetery (Everyone)
- ④ Mosque Yard (Children, female youth & elderly)



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©UN-Habitat (2016)

SOCIAL SERVICES

Population growth in the neighbourhood and the city, has increased the challenges to secure the residents' access to social services. Many of the challenges to social service delivery in Maachouk are similar to those faced in other parts of the country. The arrival of refugees from Syria exerted additional pressure on education and health services. The assistance from UNRWA is restricted to Palestinians. Distance from social services and transportation affordability were reported to be a key challenge for accessing services.



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EDUCATION

On educational level, a main challenge for neighbourhood residents is the lack in provision of intermediate and secondary education levels. Thus, students have to enrol in schools in a close by area or at a distance from the neighbourhood, which come with associated costs, including higher fees and/or transportation expenses.

The available education in Maachouk is limited to primary education, with one UNRWA primary school- Al Tantoura- and two kindergartens. Al Tantoura has a capacity to accommodate 300 students and has 190 registered students, 80% of

which are PRL and 20% are PRS. Palestinian residents opt for UNRWA's Al Chajra middle school located in El-Bass camp approximately 1 km West of Maachouk that can provide for up to 900 students. Lebanese and Syrian refugee students attend three public schools covering all education levels and situated within close proximity; Thnawiyat Sour Al Rasmiya Lil Banat, Madrassat Al Masaken Al Rasmiya Al Moutawassita and Madrassat Burj Al Chamali Al Moutawassita Al Rasmiya. Focus group discussions revealed that boys and girls of all ages walk to classes during the school year, on pedestrian-unfriendly

streets. Many students dropped out of school due to the unaffordability of transportation fees. It was also reported that many students attend technical institutes instead of higher educational programs to learn technical craftsmanship.

Based on key-informant interviews, a large number of Syrian kids are out of schools to support their families. Many of these children are working risky jobs like welding or picking tobacco.

ID	Name	Physical Capacity (per shift)	Total registered (AM shift)	LEB (AM shift)	SR (AM shift)	Palestinian refugee (AM shift)		Number of Shifts	SR (PM shift)
						PRL	PRS		
UNRWA Schools									
1	Al Tantoura Primary School	300	190	-	0	153	37	1	-
4	Al Chajra Primary / Middle School for boys	900	580	-	0	480	100	1	-
6	Deir Yassine Secondary School	600	403	-	0	386	17	1	-
Public Schools									
2	Madrassat Al Masaken Public Middle School	800	628	263	322	43		2	748
3	Bourj Al Chamali Public Middle School	1900	727	550	177	0		2	220
5	Sour Public Secondary School for girls	1500	1011	1005	6	0		1	-

Table 3 Capacity, cohorts, and shifts timing of UNRWA and public schools

HEALTH

The availability of health services inside the neighbourhood is limited to primary health care. There are three primary healthcare facilities in Maachouk, these are Khomayni primary healthcare centre (private), Al Karameh primary healthcare centre (private), and UNRWA's Mobile Health Clinic Point.

- UNRWA's Mobile Health Clinic Point (A) operates part-time in Maachouk and opens twice per week, covering PRL and PRS, though with limited consultation services and narrow range of specialization.

- Al Imam Al Khomayni Healthcare Centre (B) provides a full-time wide range of services including consultations, medications, examinations (MRI, CT scan, etc.) and laboratory tests. It targets all beneficiaries for a fee ranging between 5,000 and 18,000 LBP. However, the support of medical services for Syrian refugees inside the Khomayni dispensary has stopped.

- Al Karameh (C) provides consultation services for all residents three times a week for a fee between 10,000 and 15,000 LBP but with limited number of physicians.

Furthermore, it was reported through focus group discussions that the residents of Maachouk use three hospitals in the vicinity of the neighbourhood: Government Hospital (D), Jabal Amel (E) and Hiram Hospital (F). Most of UNRWA health care centres are located inside camps. The vast majority of Palestinians utilise UNRWA health facilities even if not in the direct proximity of the neighbourhood. However, distance from healthcare services, shortage of medications and transportation fees were conveyed as main challenges.

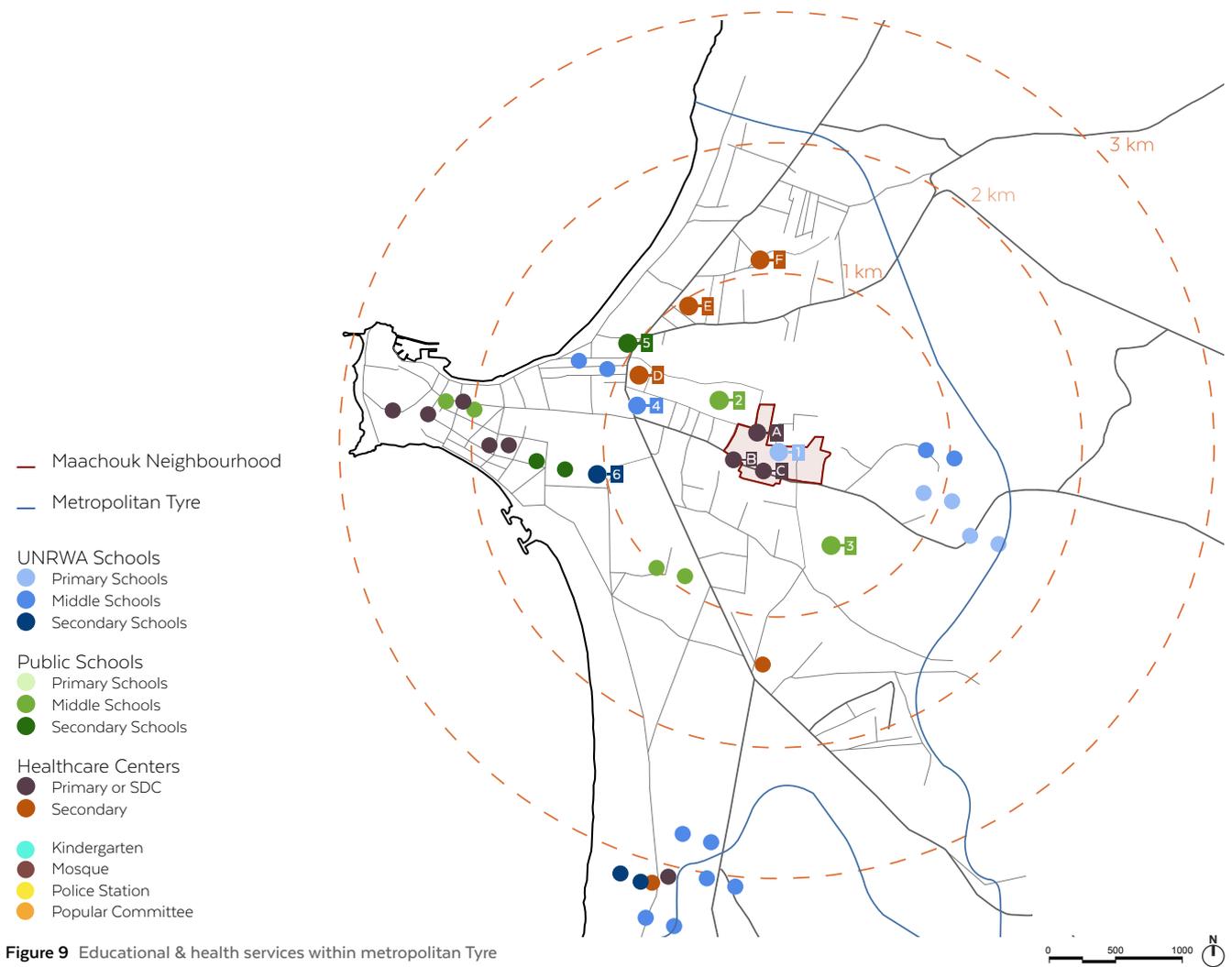


Figure 9 Educational & health services within metropolitan Tyre

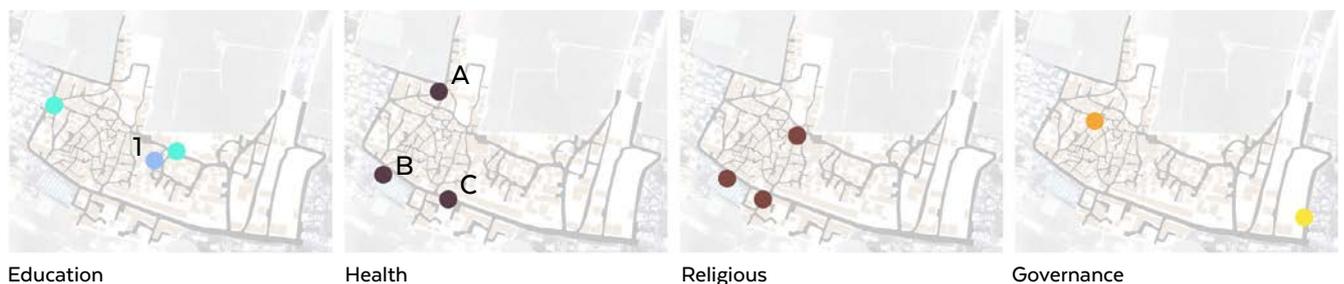


Figure 10 Social services within Maachouk

LOCAL ECONOMY

Maachouk is a residential area, with some economic activity on the main highway to the south. The commercial activity within the neighbourhood is dominantly composed of small shops divided into different categories, including food and grocery, bakery, stationary, coffee shops, galleries for furniture, cell phones, barbers, clothing, and accessories. Workshops account to 20% of the commercial activity, covering mechanics, metal works, cement and stone making, construction material, carpenters, paint, and repair. Restaurants count 2% of the commercial activity including small restaurants and snacks.

The commercial activities located along the main road leading to Burj El Chemali serve local population, as well as to a city-wide array of consumers seeking affordable products. Some workshops and small scale industries are also located on the eastern part of the neighbourhood.

Focus group discussions reported that labour on a daily basis is the main source of income for residents followed by agriculture. Poverty is also high amongst agriculture labourers, as employment is mostly seasonal. Craftsmen like ironworkers, carpenters, builders,

painters and construction workers who undergo technical education and then vocational training in nearby workshops lack the means to open their own businesses and purchase the required equipment and tools.

The precarious economic situation inside the neighbourhood is being aggravated by the poor basic urban services provision. This situation is leaving the responsibility to the residents' and the Popular Committee which lack financial resources to undertake much-needed infrastructural works, resulting in both high-cost services, and constraints for operating businesses efficiently.

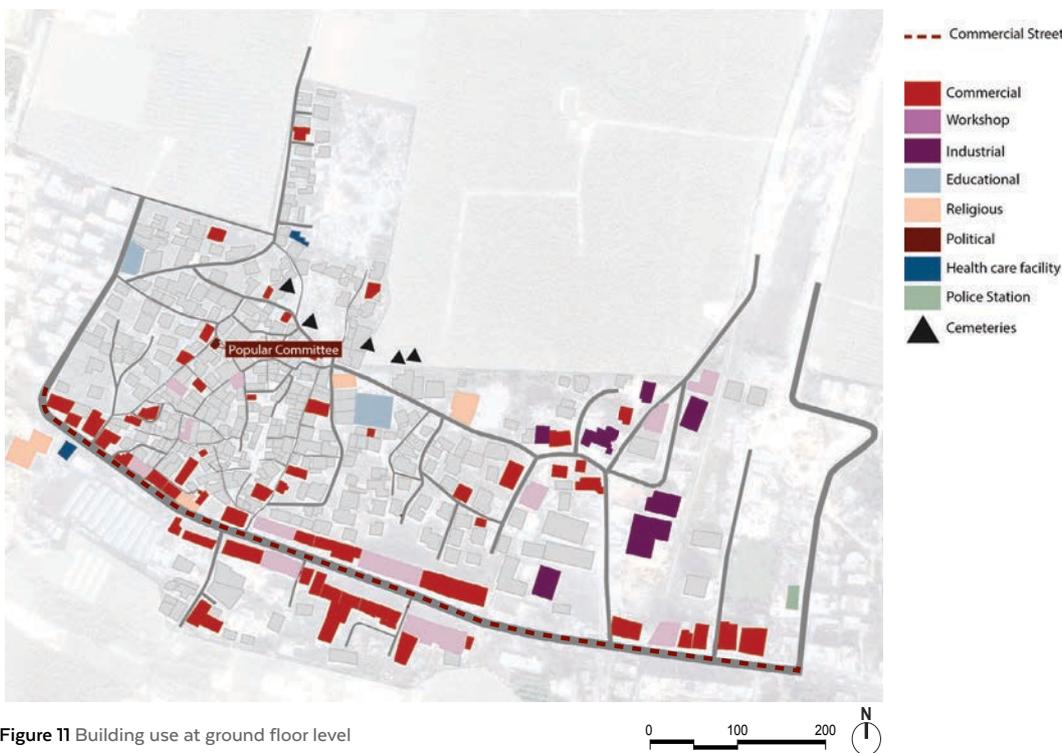
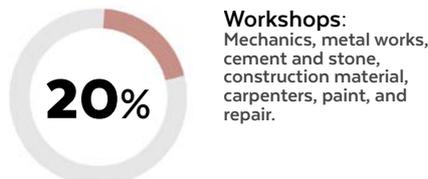


Figure 11 Building use at ground floor level

TYPES OF COMMERCIAL ACTIVITIES



HOUSING

Maachouk comprises 403 low rise multi-storey residential buildings of one to three-storeys in height. Most buildings are made of concrete and corrugated iron roofs.

A comprehensive external building condition assessment was conducted by UN-Habitat and engineers and architects from the Regional Technical Offices (RTO) under Tyre and Sahel Zahrani Union of Municipalities.

The inspection focused on:

1. Structural building condition: structural elements (i.e. beams, columns)
2. Exterior building condition: components of the building envelope (i.e. walls, roof, windows, doors and balconies)
3. Communal spaces: shared spaces of buildings (i.e. means of exit, entrances, lighting, and provision for people with disabilities)
4. Connection to services: building connection to infrastructure networks (i.e. stormwater, wastewater and electricity)

Each building feature was categorized into the following rating criteria:

1. Good - No apparent problems visible: Routine maintenance required.
2. Fair - Minor repairable problems visible: Minor repair required.
3. Substandard - Failure apparent including significant problems: Major repair required.
4. Critical - Extensive damage or missing element: Urgent repair and/or replacement required.

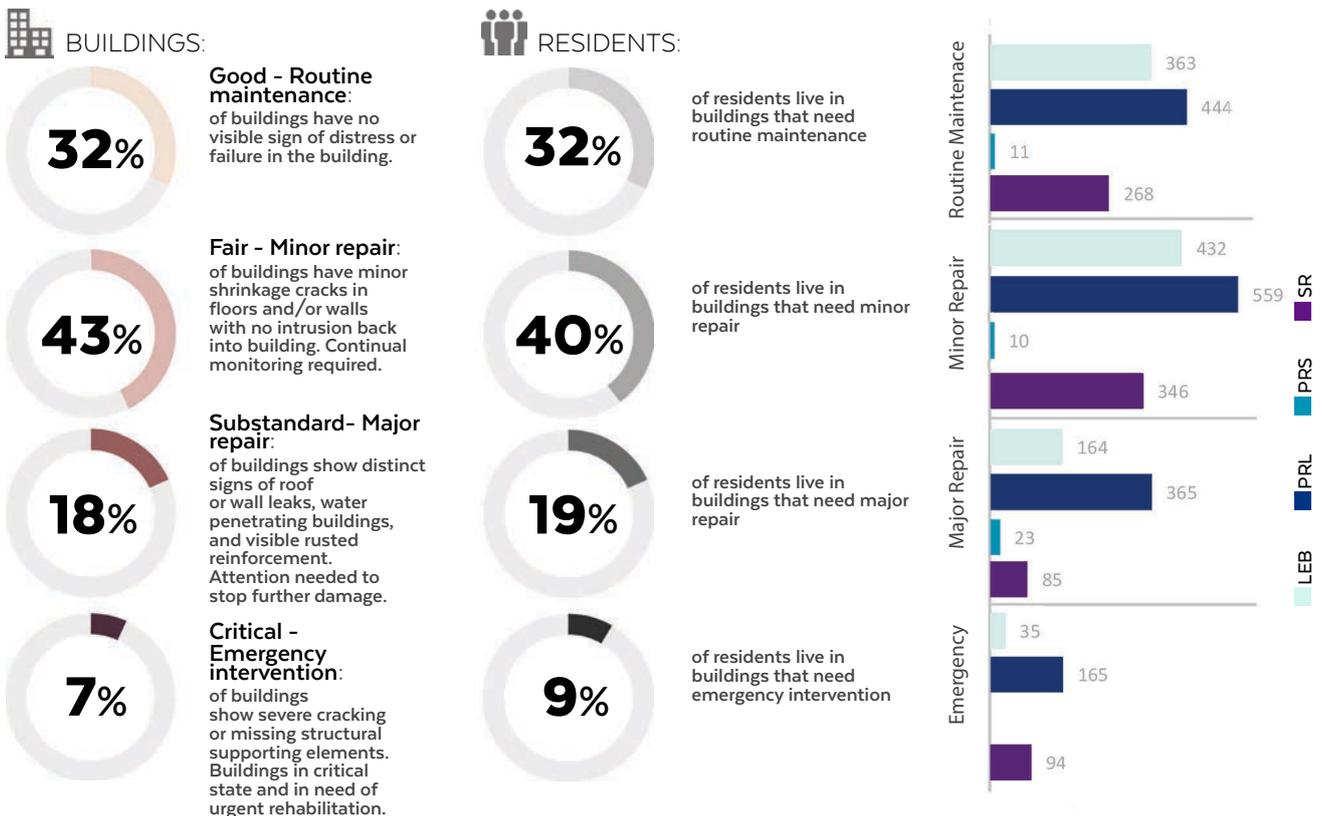
General findings for the buildings are:

- 66% of the buildings were built between 1944 and 1975, and 26% between 1975 and 2000
- 97% of the buildings are residential, with 15% having a commercial ground floor use
- 83% of the buildings have a residential ground floor use

Predominantly, the buildings in Maachouk are informal on public lands overlooking building and safety laws and without proper construction inspection. Even though the buildings don't show any visible signs of structural distress, most buildings are stated to have been built using substandard construction methods with inadequate structural support (foundation, concrete mix, steel-concrete ratio, etc.), thus provoking vulnerability against hazards (earthquakes). Moreover, where tenure is illegal, it is practically impossible for dwellers to secure renovation permits to upgrade their houses due to stringent conditions forced by the local police. Interviews with residents indicate that there are instances where housing additions are demolished and dwellers arrested.

STRUCTURAL BUILDING CONDITION

Structural supporting elements | Beams | Columns



EXTERIOR BUILDING CONDITION

Exterior walls | Roof | Windows | Balconies

BUILDINGS:



Good - Routine Maintenance:
of buildings have good exterior conditions with no failure or problems of any kind apparent. Routine maintenance will be adequate.



Fair - Minor Repair:
of buildings have fair exterior conditions with minor problems and slight cracks that are easily repaired. Continual monitoring is required.



Substandard - Major Repair:
of buildings have a poor exterior condition with distinct signs of failure including water intrusion, cracks, deterioration which requires major repair.



Critical - Emergency Intervention:
of buildings have dilapidated exterior conditions with severe failure apparent resulting in extensive damage where emergency attention is called for.

RESIDENTS:



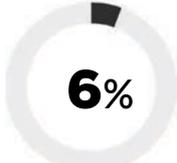
of residents live in buildings with exteriors that need routine maintenance



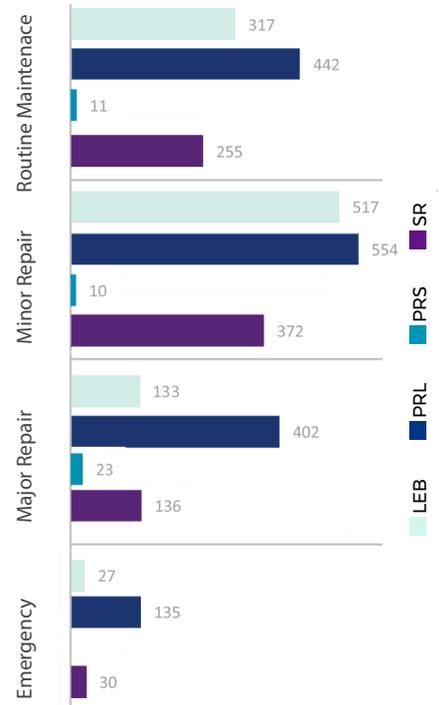
of residents live in buildings with exteriors that need minor repair



of residents live in buildings with exteriors that need major repair



of residents live in buildings with exteriors that need emergency intervention



COMMON BUILDING AREAS

Means of Exit | Entrances | Lighting | Provisions for people with disabilities

BUILDINGS:



Good - Routine Maintenance:
of buildings have functional communal spaces with gated entrances, lighting provided in all areas, and easily accessible exit doors and staircases.



Fair - Minor Repair:
of buildings have minor defects in the communal spaces such as minor problems in entrance gates.

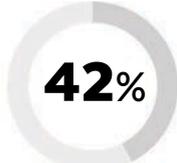


Substandard - Major Repair:
of buildings have serious defects in the communal spaces including malfunctioning gates, electrical wiring problems, and blocked staircases by obstructions that can be removed.

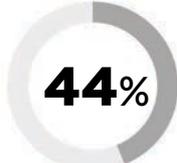


Critical - Emergency Intervention:
of buildings have no and/or damaged gates or lighting at the entrances with significant obstructions to staircases that can't be easily removed in case of emergencies.

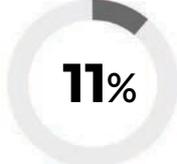
RESIDENTS:



of residents live in buildings with common areas that need routine maintenance



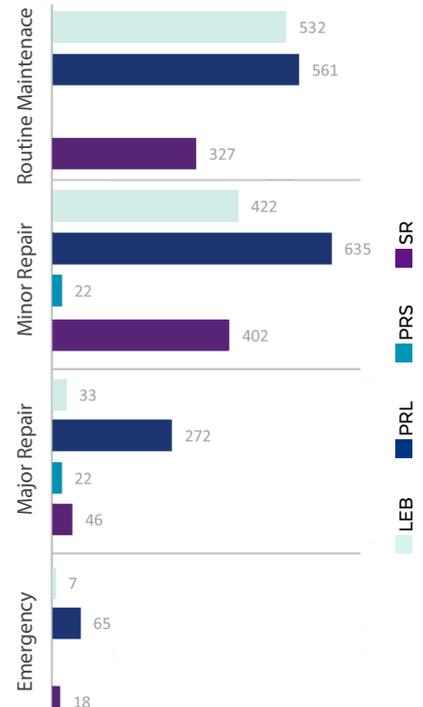
of residents live in buildings with common areas that need minor repair



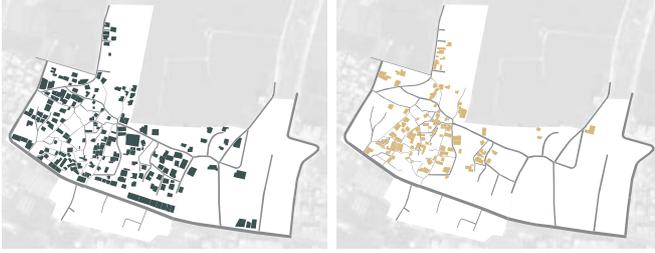
of residents live in buildings with common areas that need major repair



of residents live in buildings with common areas that need emergency intervention



Building Material



Concrete

Concrete with steel additions

Structural Condition



Routine Maintenance

Minor Repair

Major Repair

Emergency Intervention

Exterior Building Condition



Routine Maintenance

Minor Repair

Major Repair

Emergency Intervention

Communal Spaces



Routine Maintenance

Minor Repair

Major Repair

Emergency Intervention

Figure 12 Building Conditions.



BASIC URBAN SERVICES

POTABLE WATER

Potable water is available, every day of the week, to a great part of the neighbourhood, but the piping system is in need of rehabilitation to reduce leakages and water losses.

- Water quality is poor and not suitable for drinking.
- Water supply is continuous and mostly meets the domestic water needs.
- There is a lack of water treatment for lime scale, in addition to proper chlorination.

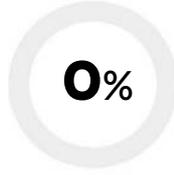
 BUILDINGS:



Functional:
of residential buildings are connected to water supply network with good quality pipes and no leakages.



Malfunctional / connected:
of buildings are connected to the water supply network but with minor leakages and/or inappropriate installation of water pumps.

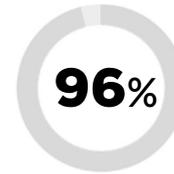


Serious defect / connected:
of buildings are connected to the network but pipes have major leakages and are at the end of their lifecycle.



Missing / Not connected:
of buildings are not connected to water supply network, requires immediate attention

 RESIDENTS:



of residents live in buildings with a functional potable water network



of residents live in buildings with a malfunctioned yet connected potable water network



of residents live in buildings with serious defected yet connected potable water network



of residents live in buildings with no access to a water supply network



Figure 13 Buildings connection to potable water network

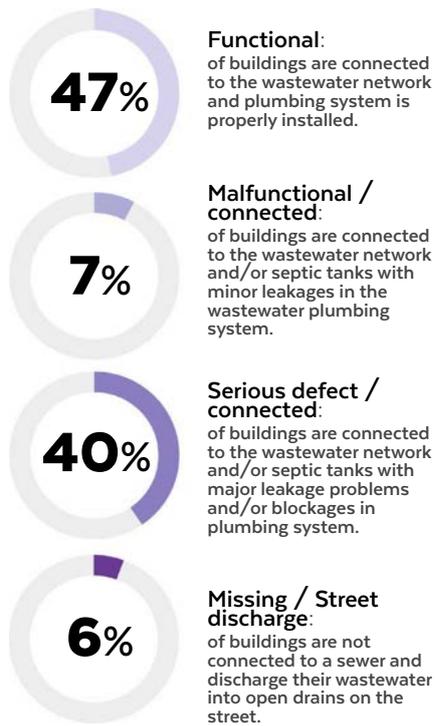


Figure 14 Potable water street mapping

WASTEWATER

- Wastewater sewers are partly clogged in many parts of the neighbourhood, reducing the capacity of the pipes to an overloaded network.
- 34% of the sewage network is malfunctioning which is causing environmental risks and health problems among neighbourhood residents.
- Interdependency of stormwater and wastewater networks result in flooding of sewage during heavy rainfall, especially in the west part of the neighbourhood.
- During peak discharge, wastewater overflow through manholes is likely caused by solid waste disposed in sewers leading to blocking of sewage network.
- Many badly constructed septic tanks are leaking and connections to the main line are minimal to non-existent. Additional maintenance costs are associated with desludging septic tanks.
- Most defected building connections to the network occur in the central historic zone on the hill generating a flood-prone area on its outskirts.

BUILDINGS:



RESIDENTS:

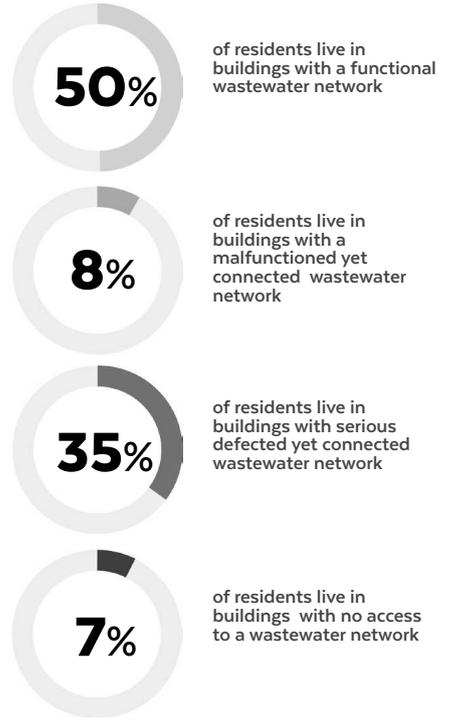


Figure 15 Buildings connection to wastewater network



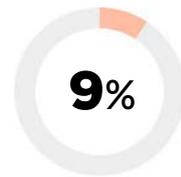
Figure 16 Wastewater street mapping

STORMWATER

- The neighbourhood has inadequate or non-existent stormwater networks, 72% of the streets lack gullies and any mean of drainage, causing localised flooding during rainfall especially in the bottom of the slopes to the hill.
- 91% of buildings have malfunctioning/missing connections to the stormwater network, contributing to drainage problems including street stormwater runoff.
- Drainage channels are either narrow or partially to completely blocked.
- Flooding and inadequate drainage of stormwater is causing structural damage to the roads and buildings.
- Key informants note that poor drainage has a significant impact on the prevalence of vector-borne diseases among neighbourhood residents and widespread infections.
- A clear relation is observed between functionality of the network and neighbourhood zones.



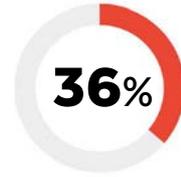
BUILDINGS:



Functional:
of buildings are connected to the network. Stormwater pipes are properly installed and functional.



Malfunctioning / connected:
of buildings are not connected to the network. Stormwater pipes are properly installed on external walls but discharge on street.



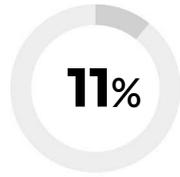
Serious defect / connected:
of buildings are not connected to the network. Stormwater pipes are installed but have serious defects, leaking and/or blocked, and discharge on street.



Missing / Street discharge:
of buildings are not connected to the municipal network and/or have missing/blocked stormwater roof gutters or drains. No stormwater pipes installed and rainwater is leaking on external walls.



RESIDENTS:



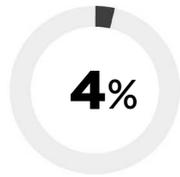
of residents live in buildings with a functional stormwater network



of residents live in buildings with a malfunctioned yet connected stormwater network



of residents live in buildings with serious defected yet connected stormwater network



of residents live in buildings with no access to a stormwater network

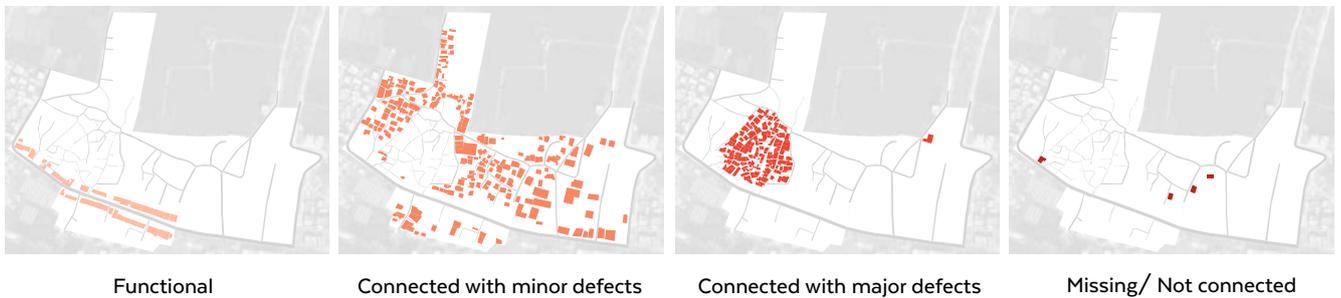


Figure 17 Buildings connection to stormwater network

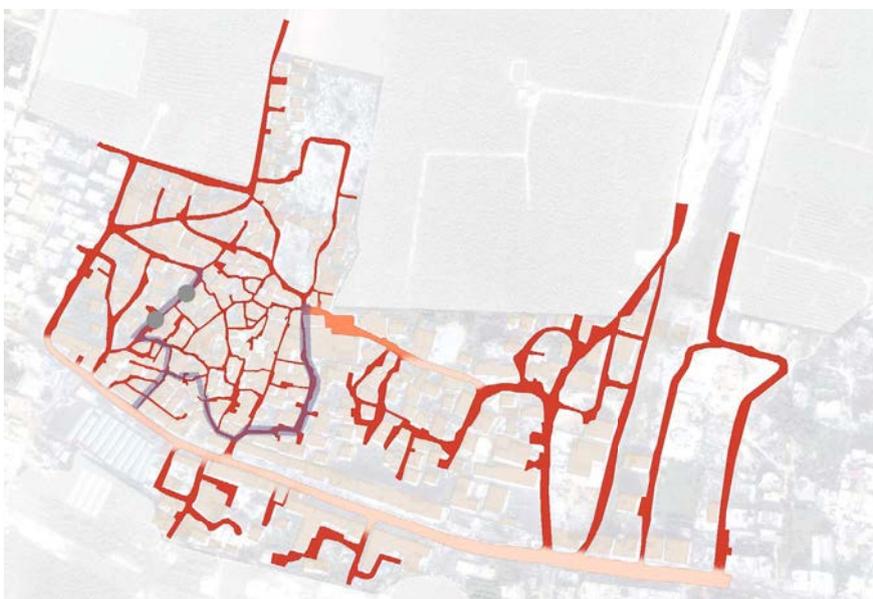
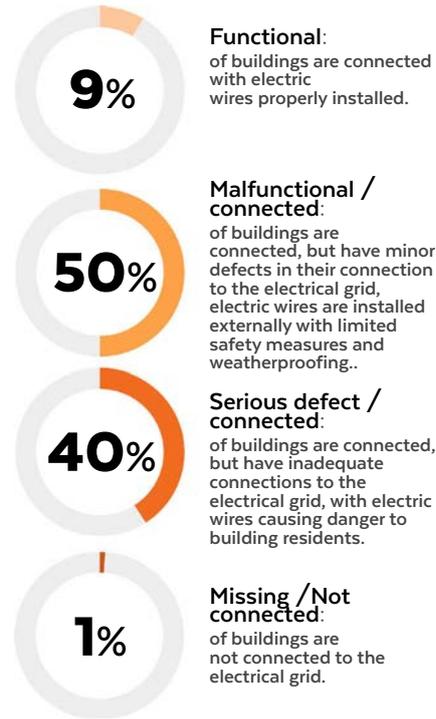


Figure 18 Stormwater street mapping.

ELECTRICITY

- Electrical infrastructure is often dilapidated and dangerous where electric hazards and tangled overhead wires are common.
- Electricity supply is inadequate to meet the demands of the residents where they receive 4 - 6 hours of electrical supply per day.
- Residents depend on privately owned power generators to supply the remaining hours of electricity per day. The monthly charge for generator subscription is around 120,000LBP for 5 Amperes.
- The increasing use of power generators is not being regulated, resulting in additional air and noise pollution.
- Street lights are non-functional when the main public power supply is down.
- Use of renewable energy is minimal (solar panels, lighting, water heating).

BUILDINGS:



RESIDENTS:

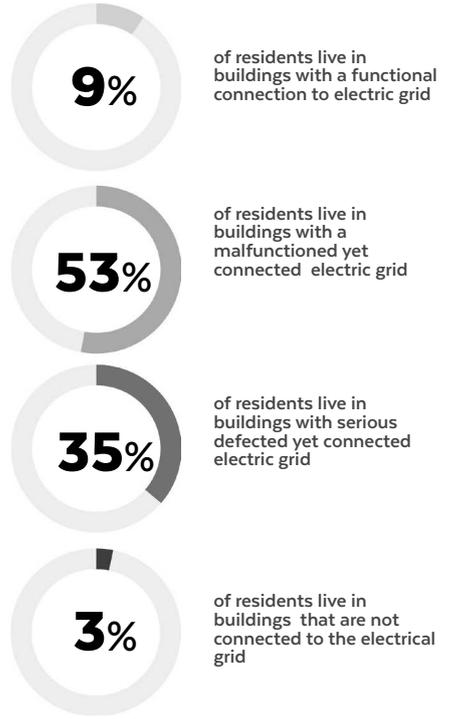


Figure 19 Buildings connection to electric network



Figure 20 Electricity street mapping.



- No Street Lighting
- Functional Street Lighting

Figure 21 Street lighting mapping

*This map is representative only when public electricity is available. When the power is down, the area is completely dark.

SOLID WASTE

The municipality and the Popular Committee has created a well-structured collaborative effort for solid waste management in successful formal/informal system. The Popular Committee is responsible for collecting the solid waste on a daily basis using their own pick-up truck. The waste collected is then dumped in the solid waste treatment plant in Ain Baal.

- There are no bins for the litter or the generated garbage bags in the whole neighbourhood.
- There is a lack of awareness and bad habits among some residents.
- Rampant dumping of garbage on two empty lands leading to the formation of informal dumpsites, induction of environmental degradation, attraction of insects and rodents, and increasing risk of vector-borne diseases.
- There is an absence of recycling and sorting waste facilities.



© UN-Habitat (2016)



- ▲ On street Disposal
- Dumpster
- Uncontrolled Dump Site
- Effective Garbage Collection
- Ineffective Garbage Collection

Figure 22 Solid waste street mapping.



ROAD

The road networks in the neighbourhood are in a dilapidated state where 82% of the roads / pathways are showing major and/or minor signs of deterioration.

- The southern main road is the only road in a good condition.
- 18% of buildings have no direct access to a vehicular road network and are only accessible via a pedestrian network of stairs and alleys.
- Community members reported a high number of injuries, especially among children and elderly, due to the bad condition of pedestrian walkways.

- 31% of the buildings are not directly linked to an emergency vehicle road network and thus no access for fire trucks and no alternative fire hydrants or similar.
- The condition of the roads is exacerbated by the low width of streets, turning radius, and poor quality of road surface.
- There is a high frequency of car and motorcycle accidents.

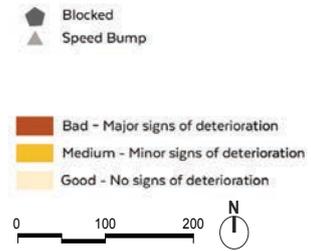


Figure 23 Road condition mapping

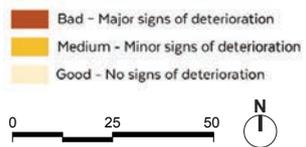
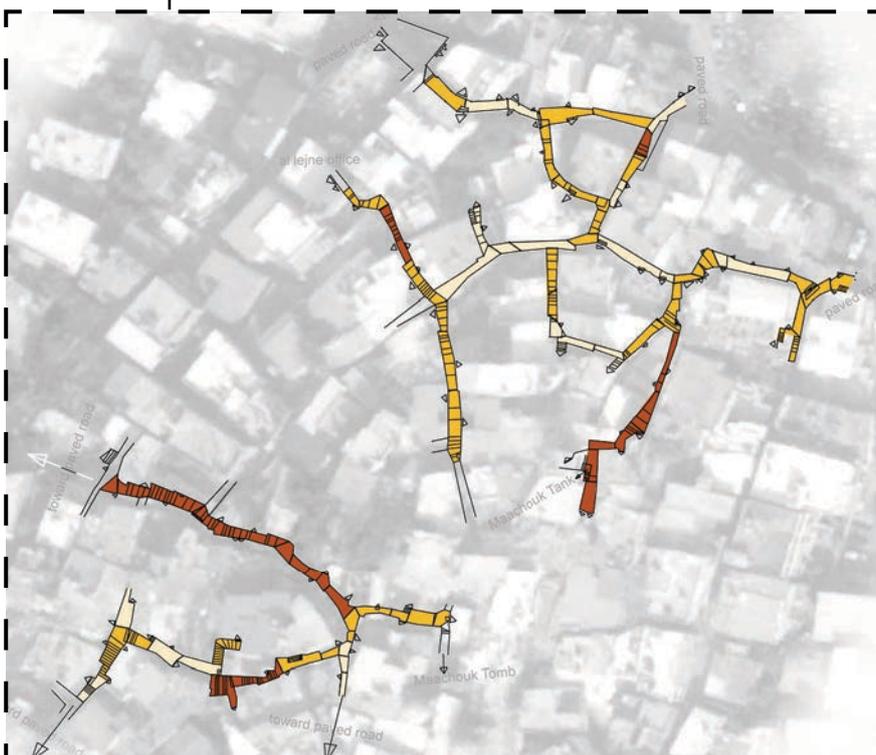
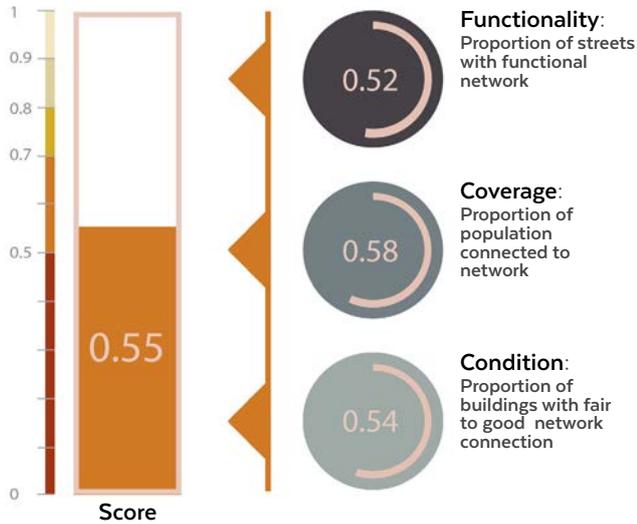


Figure 24 Stairs and alleys mapping.

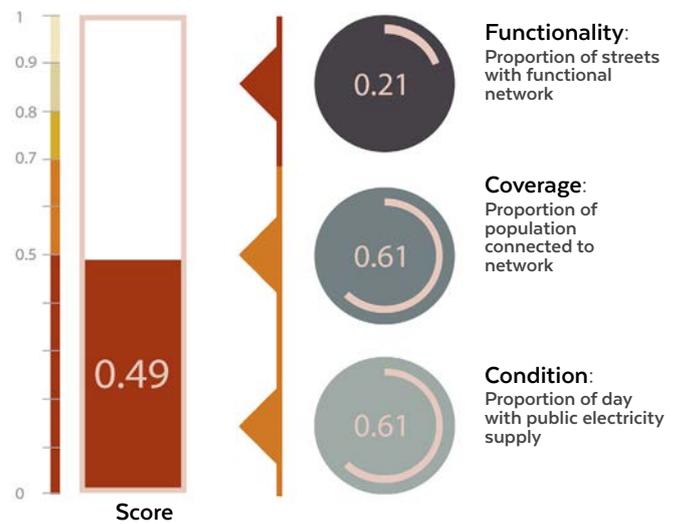
INFRASTRUCTURE PERFORMANCE

The measures used to determine infrastructure performance are the three broad dimensions of functionality, coverage and condition. These categories are evaluated based on a scoring criteria weighted to reflect their relative importance. The scoring criteria is the following: inadequate (0-0.49), poor (0.49-0.69), fair (0.69-0.79), good (0.79-0.89), and very good (0.89-1).

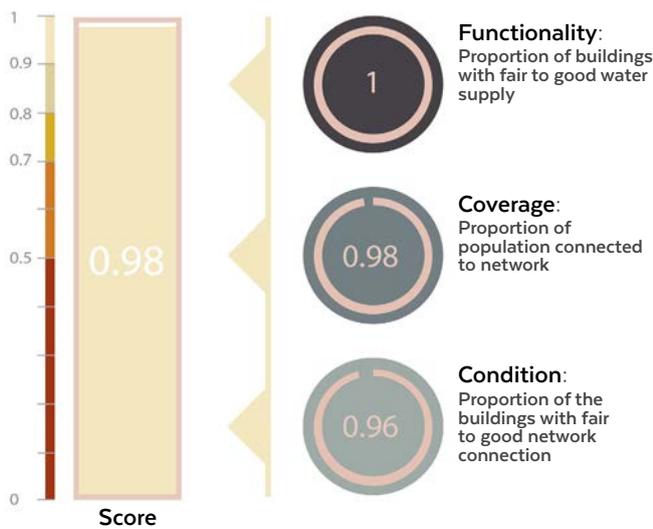
Waste Water



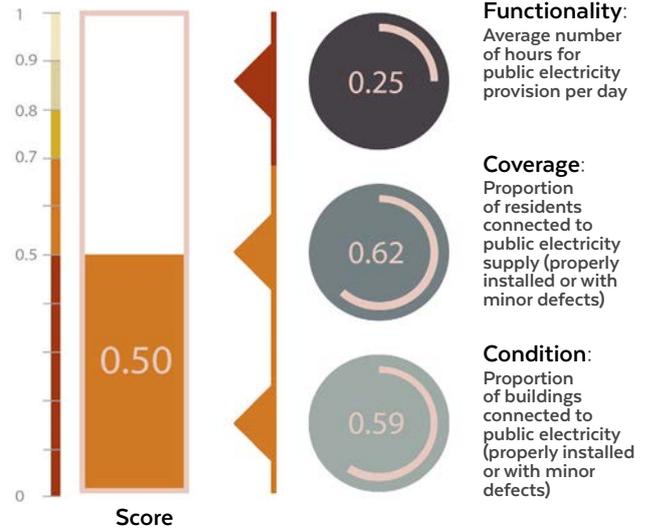
Storm Water



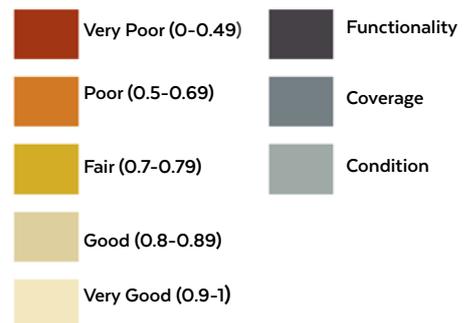
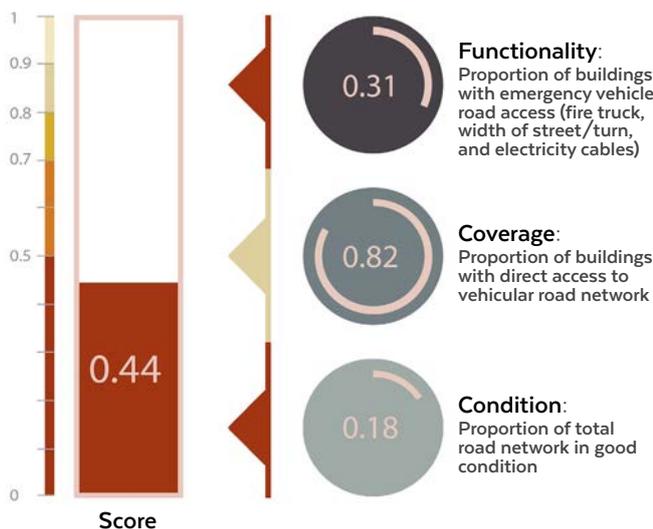
Potable Water



Electricity



Access & Mobility



A narrow alleyway between buildings. On the left, a wall is made of stacked black plastic crates. To the right, a plain, light-colored wall features a doorway leading to a set of concrete stairs. The scene is cluttered with various items, including a wooden structure and tangled wires on the left side.

PART 2. NEIGHBOURHOOD STRATEGY



SOCIAL STABILITY

Maachouk neighbourhood is home to multiple nationalities, with 45% Palestinian refugees from Lebanon, 29% Lebanese nationals, 24% Syrian refugees and 2% Palestinian refugees from Syria (UN-Habitat 2016). The proposed community development process aims at reinforcing social stability, enabling access to livelihoods, empowering women and youth, protecting children, and mobilising the community to take collective action on - and generate solutions to - shared social and economic problems.



PROMOTE SOCIAL COHESION

Enhance social integration and inclusion within the neighbourhood and its surroundings and promote the participation of people in social, cultural and political life.



DEVELOP LOCAL ECONOMY

Promote livelihoods by sustaining existing local market and building entrepreneurial behaviour.



PROTECTIVE ENVIRONMENT FOR CHILDREN

Address child protection issues and promote safe spaces.



EMPOWER WOMEN AND YOUTH

Promote gender equality and empower the role of youth and women in society and economy.

SAFETY & SECURITY

Reinforcing safety and security within Maachouk neighbourhood requires a collaborative system between Sour Municipality, Popular Committee and stakeholders to support sustainable social stability initiatives that address social and economic issues. The framework would encompass mechanisms to address physical and non-physical obstacles to social integration and inclusion, promoting participation in social life regardless of nationality, gender and age, accessing safe spaces and enhancing social interaction through dialogue between refugees and host communities within the neighbourhood and with its surroundings.



Figure 25 Narrow streets & unlit areas

-  Unlit streets
-  Narrow alleys area



Gathering area adjacent to Popular Committee office



Open space of proposed project



Abandoned structure of proposed community centre

SHORT TERM RESPONSE 12 months

- Build the Popular Committee's capacity to establish a system that enables community involvement in decision-making (e.g. focus groups discussions) to address social stability challenges and solutions through a participatory approach.
- Address issues related to insecure zones specifically highlighted by insecurity or social tensions (e.g. narrow alleys, unlit areas) (see Urban Upgrading section).
- Leverage the municipality to address security concerns related to drug and alcohol abuse close to adjacent agricultural fields (i.e. Green Plan).
- Raise awareness of the need for safe and accessible streets where harassment (of females) happens through community campaigns and activities.
- Address lack of means to organise private events (e.g. condolences) and social gatherings by establishing a community centre and football field/multipurpose space in the abandoned open land north of the neighbourhood (see Figure 25). Rehabilitate/expand the abandoned structure to be a community centre which addresses social/recreational needs and reinforces social integration by targeting different cohorts, gender and age groups (ongoing project by UN-Habitat).
- Help increase social cohesion within the family-based neighbourhood through family oriented activities (e.g. recreational/sports events, awareness-raising campaigns etc.) at the community centre or sports field space.
- Train youth playmaker/sports mobilisers to facilitate weekly activity programme (across cohorts) at the sports fields to activate kids and youth from the neighbourhood in sportsmanship activities and mitigate tensions.



LIVELIHOODS

Enabling livelihood opportunities is critical to mitigate increased vulnerabilities amongst the residents in Maachouk. Strengthening the local market includes sustaining existing market street and support entrepreneurship (including women and youth). Livelihood opportunities rely on creating income-generating opportunities within the area's economy and agriculture as well as the neighbourhood's proposed solid waste management plan.



Figure 26 Metropolitan Tyre Land use
 - - - Tyre Urban Area
 Agricultural
 Commercial
 Industrial
 Harbor
 Tyre Old city
 → Planned Beirut/Sour highway extension



Courtyards adjacent to buildings

SHORT TERM RESPONSE 12 months

- Conduct an analysis focused on the capacities and employability of vulnerable youth, obstacles facing major sectors, market opportunities and recreational needs within the neighbourhood to derive context-sensitive economic empowerment interventions.
- Capitalise on design and management of small businesses trainings that UNDP has organized in the Gatherings of Tyre⁸. Support consumer goods enterprises with retail best practices (marketing, food safety, quality control, accounting and technical skills) to maximise consumer experience and sales uplifts.
- Promote urban agriculture at houses' yards (hawakeer) as an alternative to purchasing food. Following a planting training, initiate a distribution plan for edible seed/seedling to designated houses. Harvest can be used for a household's local use (i.e. cost efficiency) or local/regional market selling (i.e. income generation).
- Develop a support system for renewable energy provision for workshops not able to operate due to electricity cuts and high generator prices.

MID TERM RESPONSE 2 years

- Establish a value chain project on proposed solid waste management plan (see Figure 27).

The project would in the first phase promote sorting waste by source at home by introducing wheelies for organic and recyclables at every other area (see Solid Waste Management section).

In parallel, establish a sorting/composting facility at the community space project north Maachouk (see Figure 32 and 47) which can be a source of income to workers (and craftswomen) and generate revenue to be used by Popular Committee for sustaining infrastructure services. The facility can capitalise on solid waste generated by the neighbourhood and neighbouring areas as well. Furthermore it would help reduce Maachouk's waste transportation cost and daily waste of 3.5 tons sent to Ain Baal sorting centre. In addition to profiting from the 55% organic and 35% recyclable waste as follows: Composting organic waste at the facility to be sold to farmers. Selling recyclable waste to recycling suppliers as stacks or up-cycling it to crafts (to be sold or exhibited at the community centre).

- In line with the economic development plan of the Strategic Sustainable Regional Development Plan for the Caza Of Tyre⁹, several livelihood opportunities arise for Maachouk inhabitants in the city pertaining to:
 - The large exploitations of banana plantations, where owners contract to lease the parcel (planting, tending, harvesting etc.), as well as banana fermenting plants.
 - Citrus has been reported to comprise 25% of the agricultural land in Tyre; however, 20% of its harvest is wasted annually (neither exported nor consumed nationally). Hence small-scale business or household-based food processing opportunities can be seized from the surplus yield.
 - Olive trees comprise 38% of Tyre's agricultural land, yet the olive/olive

⁸ UNDP Quarterly Briefing - Issue 8

⁹ CRI - Habib Debs - ECODIT - IAURIF (2015), Sustainable Regional Development Plan for the Caza of Tyre



Urban agriculture

oil sector was reported to lag on its marketing strategy (common packaging, labelling and distribution) which suggests various packaging and sales related work opportunities.

- Tobacco's highly labour-intensive agriculture typically provides family-based job opportunities with guaranteed income.
- Animal farming in the caza (506 small scale farms) is an undersized industry which doesn't meet domestic demands for dairy and meat product. The report highlights investment prospects in the vast lands/potential grazing areas in the caza's southern part.

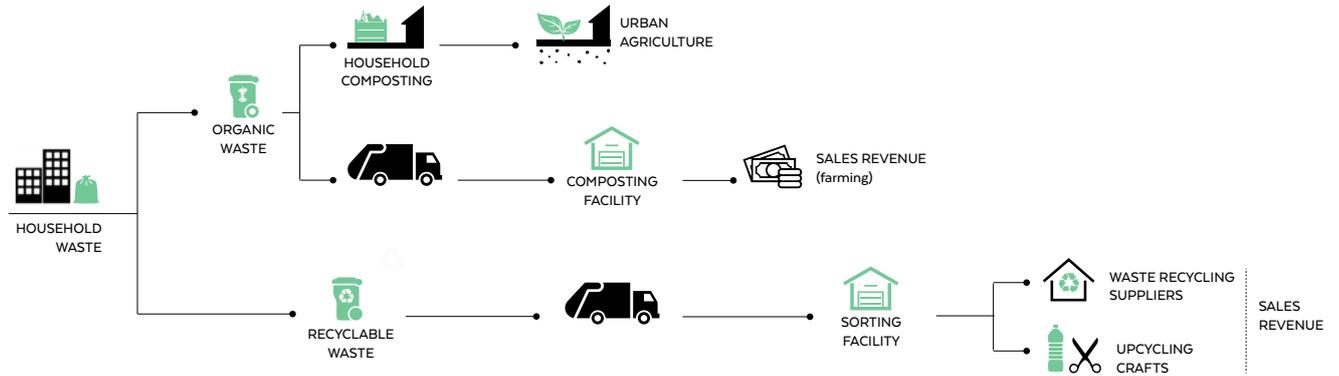


Figure 27 Value chain based on solid waste management proposed plan

A PROTECTIVE ENVIRONMENT FOR CHILDREN

High poverty and social stability concerns within the neighbourhood can possibly generate child protection risks. Empowering key actors from the municipality and police, in addition to engaging vulnerable families to address child protection issues such as labour, dropping out of school, exploitation, violence, and abuse is key to creating a protective environment for children of Maachouk.



Floor game

© UN-Habitat (2017)

IMMEDIATE RESPONSE 6 months

- Assess threats to the safety of children's environments by further studying their social well-being and access to social services (health & education) within Maachouk and surrounding area.
- Build capacity of the municipality/RTO to ensure advocacy for child protection and strengthen the collaboration between the Popular Committee and the Social Development Centre (SDC) to ensure advocacy for child protection principles.

SHORT TERM RESPONSE 12 months

- Conduct door-to-door campaigns, school activities and/or community events for caregivers/educators to raise awareness on child education and labour, best practices and rights of the child (e.g. movie-making workshop, puppet show production, parent-child events at the community centre).
- Address children's difficulty walking to middle/secondary UNRWA/public schools, all of which are outside the neighbourhood at an average of 2km walk back and forth by rehabilitating the roads or sidewalks which hinder the children's safe pedestrian journey. Alternatively, study the possibility of providing a bus for taking the children from/to the neighbourhood.
- Support NRC's after-school learning support programme (subjects of English, Arabic and Math) at Maachouk's UNRWA school to sustain its programme.
- Support NRC's children trips to surrounding areas given the lack of amenity spaces within the neighbourhood.

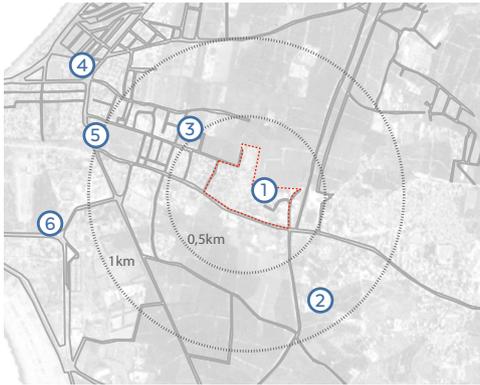
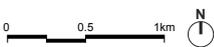


Figure 28 Nearby public and UNRWA schools

- ① Tantoura school (UNRWA)
- ② Burj El-Chamali school
- ③ Al Masaken public school
- ④ Sour public secondary school
- ⑤ Al Chajra school (UNRWA)
- ⑥ Deir Yassine (UNRWA)



MID TERM RESPONSE 2 years

- Tackle children’s common activity of spending leisure time playing in narrow allies by creating safe public spaces:
 - Utilise the community centre for children related activities (e.g. storytelling, summer camps, crafts making, sport initiatives, music choir etc.) (See Figure 32)
 - Organise recreational activities by (I)NGOs at UNRWA school playground in afternoons/weekends
 - Organise sport competitions/tournaments at the proposed football field project
 - Create pocket playgrounds with alternative uses for horizontal and vertical surfaces, located at left-over spaces within allies (e.g. floor-marked themed games)

WOMEN EMPOWERMENT

The empowerment of women and girls in Maachouk lies in addressing key challenges they face such as illiteracy, limited access to the job market, participation in decision making, and their personal safety and security in public spaces appropriated by males.



IMMEDIATE RESPONSE 6 months

- Strengthen women’s decision making by ensuring their representation within Popular Committee acting in Maachouk.
- Leverage the RTO to capitalise on women empowerment trainings on neighbourhood problem identification and solutions previously conducted by PARD. Integrate gender equality through establishing and implementing monitoring of women protection issues in collaboration with the municipality and interested stakeholders.

SHORT TERM RESPONSE 12 months

- Promote attitudes and practices which are empowering and protective of women through conducting capacity building trainings and awareness-raising sessions at the community centre. (See Figure 32)
- Promote livelihood opportunities for women (e.g. food processing) by training women at the community centre on storage, processing, marketing and distribution of food in accordance with consumer/market needs. Create an agriculture cooperative (taawneye) to facilitate efficient post-harvesting, production, branding and distribution and ensure profit making and sustainability.



Recycling crafts

Food processing

MID TERM RESPONSE 2 years

- Support and sustain PARD’s previously delivered programme for female literacy at Maachouk.
- Support skilled women to exhibit/sell their up-cycling crafts, artisan work and organic products etc. in a local market at the football field/community centre or at regional markets.

YOUTH EMPOWERMENT

High rates of unemployed youth with low completion of school and higher education learning are reported in Maachouk given scarcity and competition on job opportunities. In addition, drug and alcohol abuse was stated, during focus groups meetings, to be common and visible. This strategy promotes addressing young females and males as change agents by enabling their civic, economic and social participation at individual and organisational levels, through addressing their skills development, access to resources, critical awareness, and leadership skills.



Community centre



Open land current status



Proposed Football Field

SHORT TERM RESPONSE 12 months

- Establish a youth council comprising of elected youth aged 15-25 to represent the views of young people in their area to the Popular Committee, local authorities and organisations.
- Strengthen Social Development Centre to develop out-reach programmes to include youth participation in the development and roll out of local programmes (e.g. collaborate with the youth council to sustain basic urban services, organise substance abuse school awareness campaigns or sports tournaments etc.).
- Establish mechanisms for strengthening social stability, promoting co-existence and enhancing social interaction. Organise youth training events or initiatives on engaged citizenship, successful problem-solving, and peace building activities (e.g. drama therapy workshops, youth entrepreneurs' competition, art workshops/events, music club or choir etc.) at the community centre. (See Figure 29 to 32)
- Foster youth initiatives such as sports tournaments for local youth to engage in sportsmanship at the football field project¹⁰ (on going by UN-Habitat). Train female and male youth to be playmakers by which they can coach and manage sport competitions (piloted by GAME & UN-Habitat in March 2017).
- Capitalise on NRC's vocational training for youth conducted in Maachouk by following up on generated livelihood opportunities, and replicating the trainings within a sustainable economic framework. Establish apprentice opportunities between local artisans and local youth seeking vocational training.

MID TERM RESPONSE 2 years

- Address existing drug and alcohol abuse and juvenile delinquency by promoting collaborations with early intervention and prevention programmes, and highlighting youth's active role within society. The involvement of youth in participatory decision-making and development processes is also important to achieving sustainable development.
- Assess and support the capacity of the Social Development Centers to address and respond to drug abuse in Maachouk neighbourhood.

¹⁰ Football field project first phase comprises of ensuring field's ground compacting, lining and goals and mobile benches installation. The project's second phase (pending funding) comprises of installing artificial turf, stadiums, and light projectors for night games.

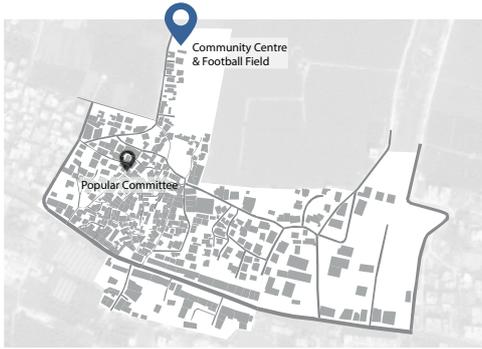


Figure 29 Proposed location for Community Centre and football field



Project illustration

© UN-Habitat (2017)

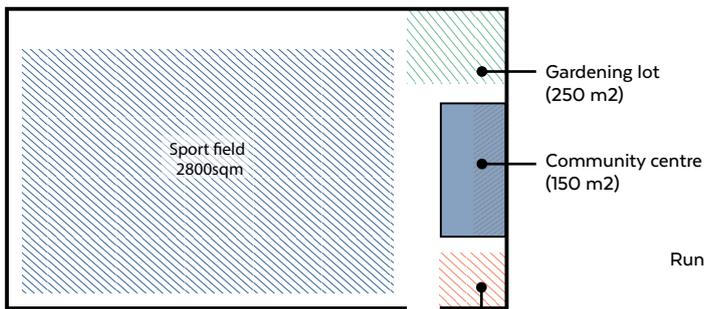


Figure 30 Proposed space programme (phase 1)

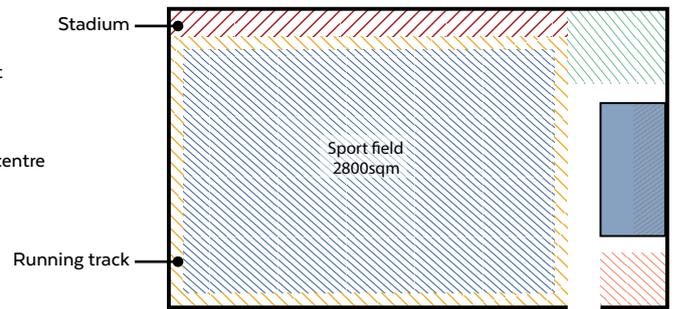
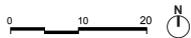
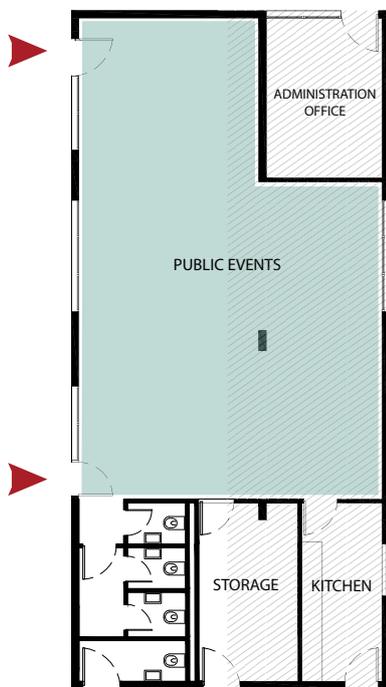
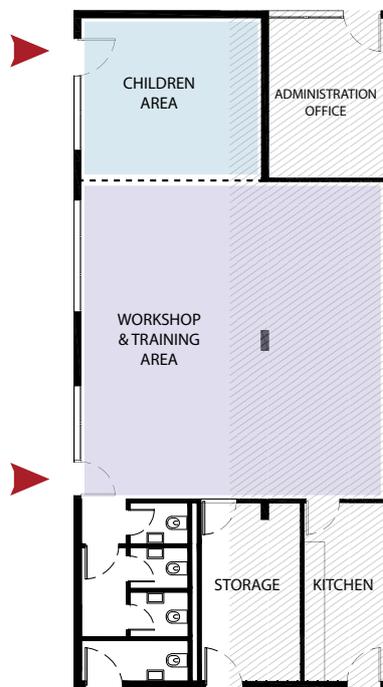


Figure 31 Potential space programme (phase 2)



Scheme 1



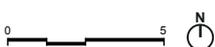
Scheme 2



Scheme 3

Figure 32 Community Centre multi-purpose space use

- Accesses
- Existing



URBAN UPGRADING

The proposed urban upgrading aims to mitigate deterioration of the built environment and basic urban services and improve living conditions in an integrated manner, through joint efforts by local authorities, community and other stakeholders.

The building conditions assessment revealed need for immediate in depth assessments and interventions in the zones 1 and 3. The waste- and stormwater networks needs attention, especially in zone 1, by promoting a low-cost integrated design for stormwater collection and connecting buildings to the sewage network. Potable water is well distributed after a recent upgrading project by UNDP . Moreover, road conditions are deteriorated with asphalt settling and cracking, and stairways and alleys – also in zone 1 - are in poor conditions hindering the residents’ accessibility. UN-Habitat has initiated improvement of some staircases in the pedestrian hill area (zone 1), yet further interventions are recommended. Electricity and Solid Waste management are not found to be in critical condition, yet there is an underutilised potential to enhance solid waste management through recycling, and mitigate dumping in the peripheries of the neighbourhood, and introducing renewable energy solutions.

The planned extension of the main highway from Beirut to Tyre/South (See Figure 26) will pass through the eastern side of Maachouk with parts of the industrial area expropriated. This will give the neighbourhood a high development potential that will have major implications for Maachouk and the region as a whole.

Projects mentioned are detailed in terms of number of buildings impacted (🏠), number of residents and beneficiaries (👤) which directly benefit from the interventions and estimated project costs (USD\$).



ENHANCE BUILDING CONDITION & SERVICES

Enhance building structural condition and improve building connections to infrastructure services.



IMPROVE WASTE WATER MANAGEMENT

Upgrade/separate/extend waste and storm water networks to mitigate flooding and enhance public health.



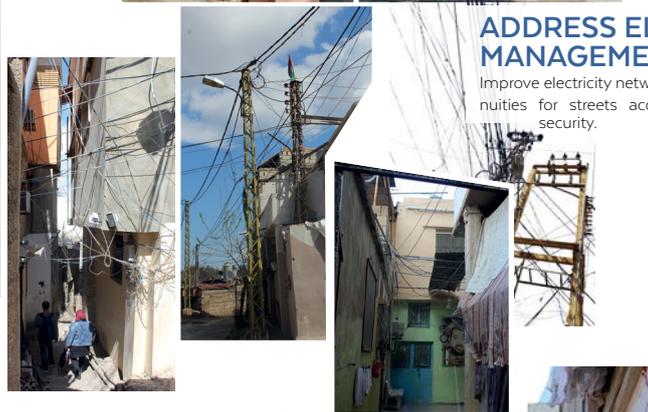
PROMOTE SOLID WASTE MANAGEMENT

Meet solid waste collection needs, systematise its disposal and resolve informal dumping site



ADDRESS ELECTRICITY MANAGEMENT

Improve electricity networks and supply continuities for streets accessibility, safety and security.



FACILITATE CIRCULATION

Enhance the neighbourhood’s accessibility by addressing roads and sidewalks, and its connectivity to its surrounding.



HOUSING

As mentioned in the profile section of this report, Maachouk’s residential areas are composed of one to three storey buildings, where 66% were built mostly between 1944 and 1975. Following the Palestinian refugee displacement and the recent influx of refugees from Syria, the fluctuation triggered the development of poor quality housing conditions and a maintenance unaffordability.

Most buildings in Maachouk are at risk of collapse during an earthquake due to the fact that they were built using substandard construction methods with inadequate structural support. Buildings in zones 1 and 3 are evidently damaged and need major repairs. On average, 25% of the buildings constitute visible structural problems that fall within substandard and critical repairs. Buildings in Zone 2 show subsidiary structural damage and slight exterior conditions that need minor repairs. Lastly, common building areas are mainly in good conditions and well maintained and mostly only entail routine maintenance or minor repair, mainly related to entrance gates (88%) and lighting fixtures (90%).

BUILDING STRUCTURAL CONDITIONS

Structural supporting elements | Beams | Columns

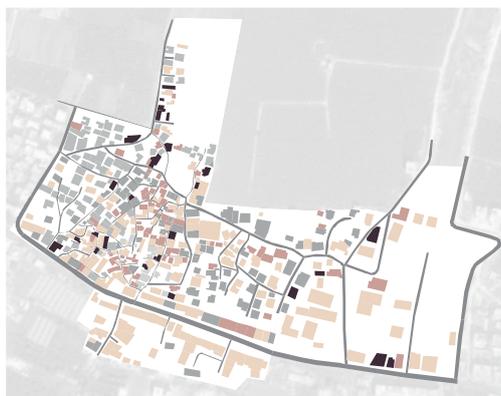


Figure 33 Building structural conditions (phased response)

- Severe structural problems
- Substandard structural conditions
- Fair structural conditions

IMMEDIATE RESPONSE 6 months

- Structurally reinforce failed or severely damaged elements (foundations, columns, load-bearing walls, beams or slabs).
- Establish a mechanism between the municipality, RTO technical teams and the Popular Committee to monitor structural problems of buildings, liaise with private owners and follow up on critical hazards.

	
27	294

SHORT TERM RESPONSE 12 months

- Structurally stabilize signs of distress and correct by reinforcing cracks, leaks and visible water penetrations impacting vulnerable households.

75	637
----	-----

MID TERM RESPONSE 2 years

- Perform patch and repair on all minor cracks and potential areas for water penetration impacting vulnerable households.

172	1347
-----	------

EXTERIOR BUILDING CONDITIONS

Exterior walls | Roof | Windows | Balconies



Figure 34 Building exterior conditions (phased response)

- Dilapidated exterior conditions
- Substandard exterior conditions
- Fair exterior conditions

IMMEDIATE RESPONSE 6 months

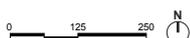
- Repair severely damaged leaking roofs, walls and balconies with extensive failure and/or deflection.
- Repair/replace dilapidated windows and doors, and unstable fixed features (balustrade, handrails). Install doors/windows when it is missing.

	
18	192

SHORT TERM RESPONSE 12 months

- Repair parts/assemblies of roofs, walls and balconies that have started to fail due to infiltration of water and are showing visible signs of deterioration.
- Repair/replace windows and/or doors experiencing problem of operations and water intrusion.
- Repair unstable fixed features (balustrade, handrails).

80	694
----	-----



COMMON BUILDING AREAS

Means of Exit | Entrances | Lighting | Provisions for people with disabilities



Figure 35 Communal spaces conditions (phased response)

- Non existent or damaged gates
- Gates with major defects
- Gates with minor defects

IMMEDIATE RESPONSE 6 months

- Coordinate with building owners to:
 - Remove all physical impediments blocking staircases and exit gates
 - Install or repair entrance gates.
 - Install or repair lighting fixtures at the entrances and in staircases (preferably use solar lighting).

43

463

SHORT TERM RESPONSE 12 months

- Establish building maintenance committees that can ensure minor repair and routine maintenance of building common areas.



WET UTILITIES

Maachouk's wastewater and stormwater networks are combined, overloaded and to a limited degree maintained, which significantly affects resident's health. This further poses stress on building and road structures.

35% of Maachouk's residents live in buildings with serious defects, not connected to the wastewater and stormwater networks, mainly located in the historical congested built-up hill (Zone 1).

On a street level, there is no functional stormwater network, with 72% of the streets lacking gullies or any other mean of drainage, causing severe water ponding during heavy rainfall and especially at the bottom-edge of Zone 1. This is further exacerbated by discharge of stormwater to the street by 91% of the buildings. Moreover, Maachouk's sewage network is partly blocked and overloaded with 34% of the network malfunctioning especially in the central and west part of the neighbourhood (Zones 1, 2 & 3).

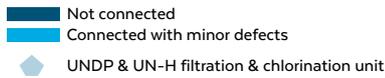
Irrevocably, Maachouk's neighbourhood needs to enhance its wastewater and stormwater networks and in turn connect all its buildings to it. This will help improve the neighbourhood's public health and aids with enhancing the street's accessibility and livelihood activity.

Potable water network has recently been upgraded by UNDP, as it is registered 95% of good quality pipes and devoid of leakages.

BUILDING CONNECTION TO POTABLE WATER SUPPLY



Figure 36 Building connections to the potable water supply (phased response)



IMMEDIATE RESPONSE 6 months

- Connect buildings to potable water supply network for domestic use.
- Address water treatment by implementing a filtration and chlorination unit and replace metal pipes by non-corrosive plastic ones. (Currently being implemented by UNDP & UN-Habitat).

15 79 20,000\$

SHORT TERM RESPONSE 12 months

- Repair or replace potable water building pipes in end of life cycle or with major leakages.

4 54 2,711\$

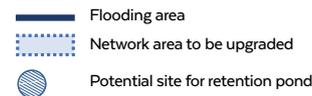
MID TERM RESPONSE 2 years

- Establish a maintenance committee to ensure minor repair and routine maintenance on building pipes.

WASTEWATER & STORMWATER NETWORK



Figure 37 Stormwater and wastewater networks response plan



IMMEDIATE RESPONSE 6 months

- Upgrade wastewater network in the flooding area and separate it from the stormwater network.
- Conduct hygiene awareness-raising in the community and schools.

1171 100,000

SHORT TERM RESPONSE 12 months

- Upgrade wastewater network in the central area of the neighbourhood (Zone 1).
- Upgrade stormwater network on main roads by promoting integrated design and greenery for a passive rainwater harvesting:
 - Increase porous pavement for roads of low traffic and pedestrian stairways to reduce volume of runoff. (See Access & Mobility section)
 - Establish a network of stormwater planters, bioswales, and rain gardens leading to a retention pond to mitigate runoff in the streets. (See Figure 37)

1171 100,000

MID TERM RESPONSE 2 years

- Upgrade wastewater network on the Eastern side and the South of the neighbourhood (Zone 3 & Zone 2).
- Upgrade the principal line of the neighbourhood located on the main road leading to Tyre.
- Initiate a pilot for rainwater collection from the roofs to reduce the volume of runoff and use it for irrigation.
- Develop maintenance plan with the Municipality, the Popular Committee.

529 80,000

3,800 300,000

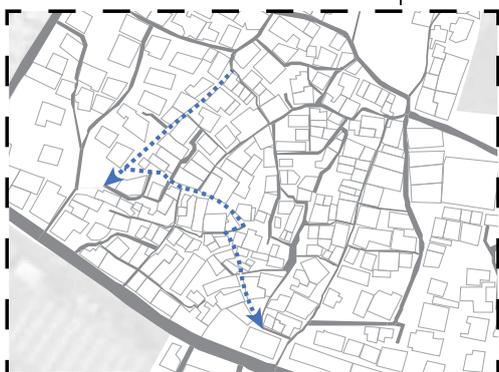
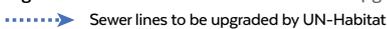


Figure 38 UN-Habitat wastewater network upgrading project



BUILDING CONNECTIONS TO WASTEWATER NETWORK



Figure 39 Building connections to wastewater network (phased response)

- Not connected
- Connected with serious defects
- Connected with minor defects
- Functional

IMMEDIATE RESPONSE 6 months

- Connect buildings of vulnerable households to wastewater network .
- Unclog blocked plumbing system in buildings that are discharging to streets.

SHORT TERM RESPONSE 12 months

- Repair wastewater plumbing system with major leakage problems.
- Remove all septic tanks and connect the buildings to the wastewater network.
- Address all blockages that flood and discharge within the streets.

MID TERM RESPONSE 2 years

- Perform routine maintenance to wastewater plumbing system which is installed internally and/or on external walls and connected to network.

LONG TERM RESPONSE 4 years

- Coordinate and train building owners (& building maintenance committees) to perform routine maintenance to the plumbing system.

Buildings	People	Cost (\$)
25	250	20,000

168	1171	42,000
-----	------	--------

31	279	5,000
----	-----	-------

BUILDING CONNECTIONS TO STORMWATER NETWORK



Figure 40 Building connections to stormwater network (phased response)

- Not connected
- Connected with serious defects
- Connected with minor defects
- Functional

IMMEDIATE RESPONSE 6 months

- Install stormwater pipes in buildings where water is leaking on external walls and penetrates inside.
- Address street discharge and connect it temporarily to existing underground networks.

SHORT TERM RESPONSE 12 months

- Repair installed, yet leaking stormwater pipes.
- Connect pipes to the network and mitigate discharge on street.

MID TERM RESPONSE 2 years

- Establish a mechanism between the municipality's RTO and the Popular Committee to continue assessing and monitoring storm/wastewater network emerging issues.

Buildings	People	Cost (\$)
13	119	5,600\$

160	1186	33,500\$
-----	------	----------

- ① Plants with deep roots that absorb the runoff and pollutants.
- ② Slope and curb cut
- ③ Curb and gutter
- ④ Manhole
- ⑤ Pipes leading to the retention pond

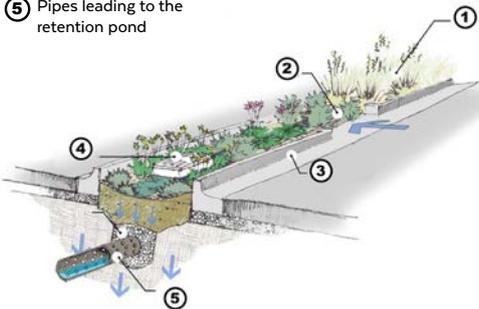


Figure 41 Stormwater planters



Stormwater planters

© UN-Habitat (2017)

ELECTRICITY MANAGEMENT

The tangled power grid in Maachouk faces various challenges in terms of its illegal connections, haphazard wiring and polluting private generators, all of which impact the safety and security of the neighbourhood's residents.

The improvement of Maachouk's electricity management is achieved through addressing the safety of wire arrangements, while avoiding immediate or foreseen dilapidation; and lastly through reducing the dependency on generators by promoting the use of renewable energy to increase hours of reliable energy, reduce energy costs, improve safety by lighting-up the neighbourhood when public power supply is down.

STREET ELECTRICITY



Figure 42 Electricity management (phased response)

- Unlit areas
- Tangled over-head wires
- Private generator
- Electric hazard

IMMEDIATE RESPONSE 6 months

- Rehabilitate/rearrange and repair electric connections (tangled wires, deflected poles etc.) which are dangerous to residents and pedestrians and/or not connected to the network.
- Take measures to address air and noise pollution from private generators (eg filters, silencers for generators, alternative energy etc.)
- Enhance safety through instalment of light fixtures in unlit streets, preferably with solar lighting. (See Figure 42)



495 1,600\$/fx

SHORT TERM RESPONSE 12 months

- Address safety measures pertaining to electric wires that are installed externally with limited safety or weatherproofing measures by planning a rewiring scheme and implementation plan in coordination with stakeholders (local committee, private generators, internet providers & municipality) in collaboration with MOEW & EDL.
- Address power connections with serious defects, in collaboration with MOEW & EDL by establishing a follow-up mechanism with the municipality / RTO and the Popular Committee.

MID TERM RESPONSE 2 years

- Support the Popular Committee in raising awareness on the benefits and local potential for renewable energy.

BUILDING CONNECTION TO PUBLIC/PRIVATE ELECTRICITY

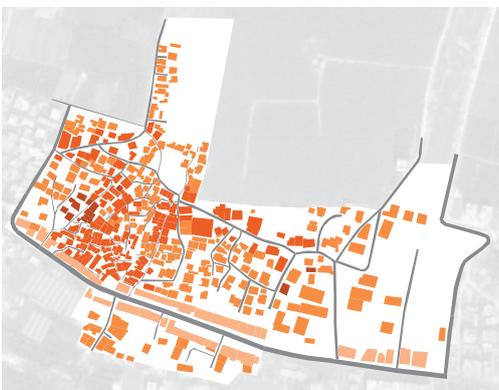


Figure 43 Building connections to electricity (phased response)

- Not connected
- Connected with serious defects
- Connected with minor defects

IMMEDIATE RESPONSE 6 months

- Connect buildings to the electric grid.
- Replace wire connections which are dangerous to building residents and remove unconnected wires.



13 119 31,200\$

SHORT TERM RESPONSE 12 months

- Rearrange and repair electric wire connections with limited safety measures and weatherproofing.

160 1186 144,000\$

MID TERM RESPONSE 2 years

- Initiate a pilot for solar power panels on the rooftop of a public institution/social service building to reduce the dependency on generators¹¹.



¹¹ UNDP is currently implementing a solar panels project to supply water pumps.

ACCESSIBILITY & MOBILITY

Maachouk is easily accessible and well connected to neighbouring areas. It is characterised by its direct connection with the centre of Tyre through the main road. However, within the neighbourhood, branching streets and footpaths are in a poor state, especially in zone 1, hindering safety, and accessibility.

As mentioned in the profile section, 82% of the roads are in a bad or medium condition, while 18% of the buildings (mainly in zone 1) are only accessible by poorly maintained stairways and alleys (narrow alleys, varied step-heights, cracks in surface, missing hand rails etc.) affecting the safety amongst residents, especially elderly and children.

The proposed interventions to improve access and mobility within Maachouk, includes: addressing the conditions of internal roads, alleys and stairways.



Figure 44 Road condition (phased response)

- Deteriorated roads
- Roads with minor signs of deterioration
- Connection to Tyre/Burj El-Chamali

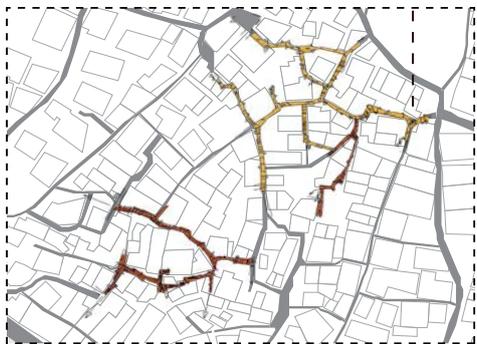


Figure 45 Stairs conditions and on going projects

- UN-Habitat stairs reconfiguration project
- Deteriorated stairways and alleys



Figure 46 Primary roads and main gates of Maachouk

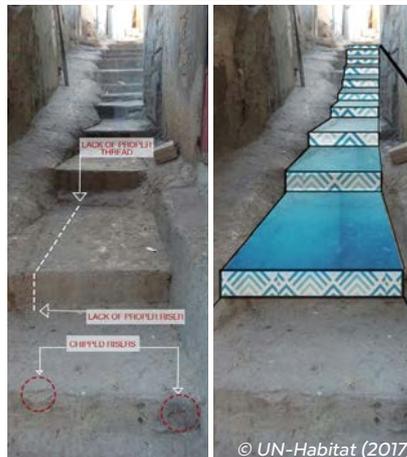
- ▲ Main entrances to Maachouk
- Primary roads

IMMEDIATE RESPONSE 6 months

- Start a street rehabilitation and maintenance program for roads with signs of deterioration (cracks in asphalt, potholes, water ponds etc).
- Rehabilitate alleys and stairways with signs of deterioration:
 - Rearranging and unifying steps height (maximum 20cm).
 - Install handrails in main alleys and stairways to facilitate access for elderly and children.
- Enhance safety through installment of light fixtures in unlit streets (Zone 2 & Zone 4), preferably with solar lighting.

SHORT TERM RESPONSE 12 months

- Enhance Maachouk’s accessibility by widening the access points where possible.



Proposed intervention

SOLID WASTE MANAGEMENT

Capitalizing on the existing collection system, solid waste management would be addressed by systematizing disposal, raising awareness about sustainable waste solutions and supporting local service providers by building up their capacities.

The proposed interventions to improve solid waste management is to raise awareness of inhabitants through education and leadership; and to provide better facilities for garbage collection, disposal and recycling. These interventions would enhance the social stability by enhancing public health and livelihood.



Figure 47 Solid waste management failures

- Ineffective garbage collection system
- ▲ On street disposal
- DS** Uncontrolled dumping site



Food composting

IMMEDIATE RESPONSE 6 months



- Provide a wheelie bin (240L) to each building of the neighbourhood to facilitate the collection system and prevent on street disposal.
- Review the current garbage collection system to consider all part of the neighbourhood. (See Figure 47)
- Clean and rehabilitate the two informal dumping sites in collaboration with RTO / Tyre Union of Municipalities.
- Conduct an awareness-raising campaign in the community to reduce, sort and recycle waste produced by individual households.

SHORT TERM RESPONSE 12 months

- Upgrade the collection system through a well-defined schedule, in coordination with a local service provider.
- Initiate a waste sorting process within Maachouk by providing sorting bins at strategic locations within the neighbourhood and establishing a sorting centre where waste is further sorted and processed before being transported to nearby recycling facilities.¹²

MID TERM RESPONSE 2 years

- Coordinate with Tyre Municipality to develop a waste sorting management plan and establishing a recycling centre to collect sorted waste.
- Initiate a sustainable organic waste collection by establishing a compost site next to the sorting centre. Make use of the compost for:
 - urban agriculture (backyards, gardens, rooftops)
 - distributing/selling it to farmers¹²

¹² For economic and social profits refer to Social Stability section. (See Figure 27)

CONCLUSION

Maachouk, originally established to house Palestinian refugees, has over the past decades and significantly since 2011, seen a growth of residents due to the provision of low cost housing. Residents now include Lebanese and Syrian refugees, with the latter now making up a quarter of the population.

Poor service provision has been exacerbated by this recent influx. When mapping the buildings' connections to infrastructure networks and the varied typological zoning, Maachouk subdivides analogously into four notional areas. The central hill village evidently stands out, with the majority of buildings/streets not connected to sewerage and stormwater networks coupled with connecting pathways in poor conditions. The lack of networks in the central village is inadvertently affecting the areas downhill from the 'village'.

Furthermore, the analysis reveals that there are three key factors exerting pressure on the basic needs of the inhabitants in Maachouk;

First, poor quality housing with inadequate conditions and capacity of the infrastructure services, notably the management of stormwater, wastewater and circulation. Secondly, poor safety and security exacerbated by the shortage of law enforcement, diverse population, poor road conditions, and the absence of safe public spaces for the residents especially women and children. Thirdly, rising socio-economic challenges due to limited access to livelihood opportunities, and increased competition on day-to-day jobs amongst a larger neighbourhood population. The unaffordability of transportation limits both opportunities for livelihoods and education in central Tyre and elsewhere, as well hinders access to other social services.

This profile has identified the relative criticality across space of these interlinked social and physical challenges. This offers a new knowledge baseline, endorsed by the local community and municipality, which can be used to inform interventions and can indeed generate a local authority response in alleviating vulnerabilities in an optimally phased manner.

The neighbourhood approach promotes multi-sectoral objectives integrated within a spatial framework. Figure 49 suggests key interfaces between urban upgrading and community development. Urban upgrading (See Figure 48) can advance agendas related to the concerns of safety and security, public health, accessibility and socio-economic development.

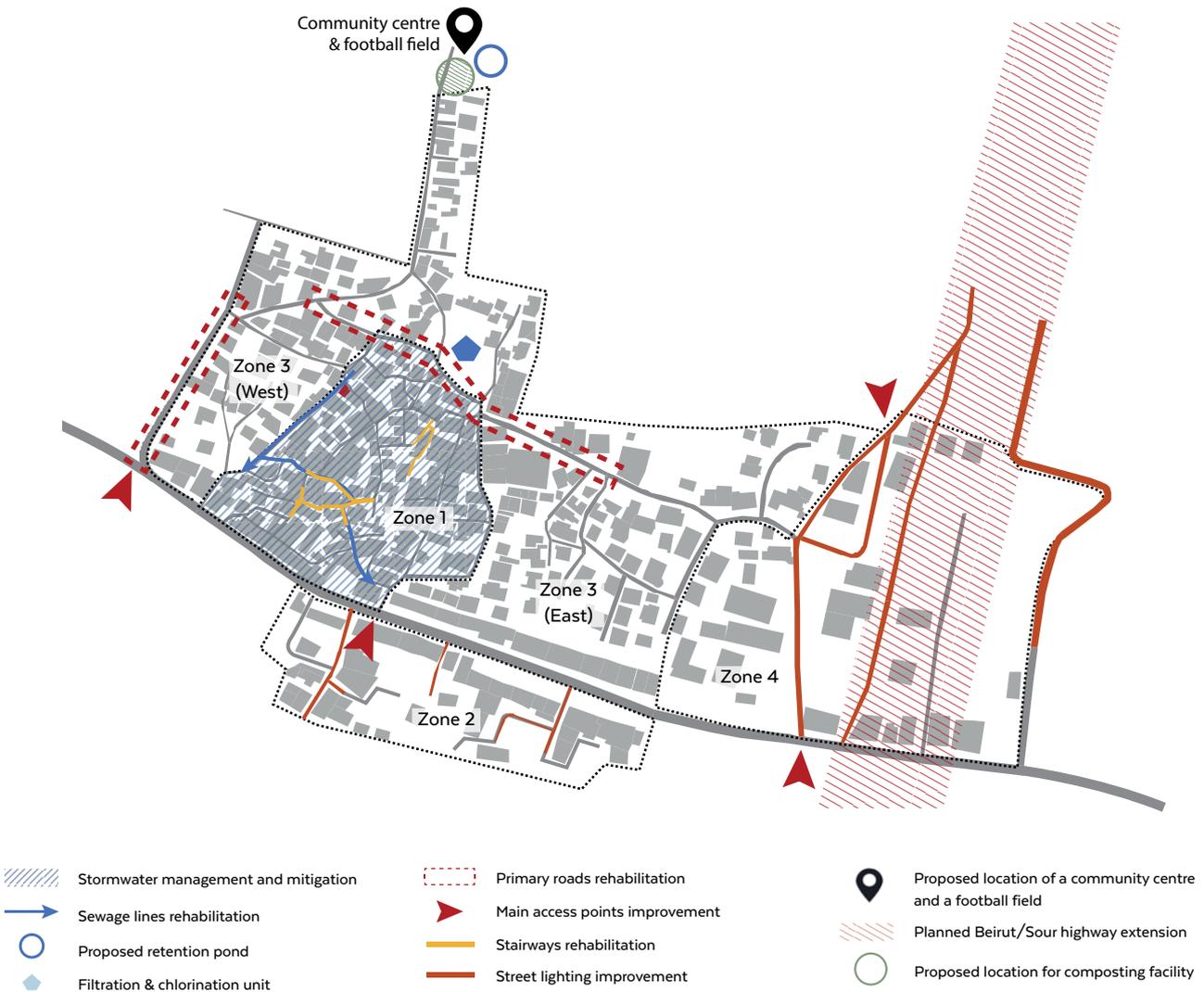
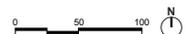


Figure 48 Main upgrading strategies in Maachouk



INTEGRATED APPROACH

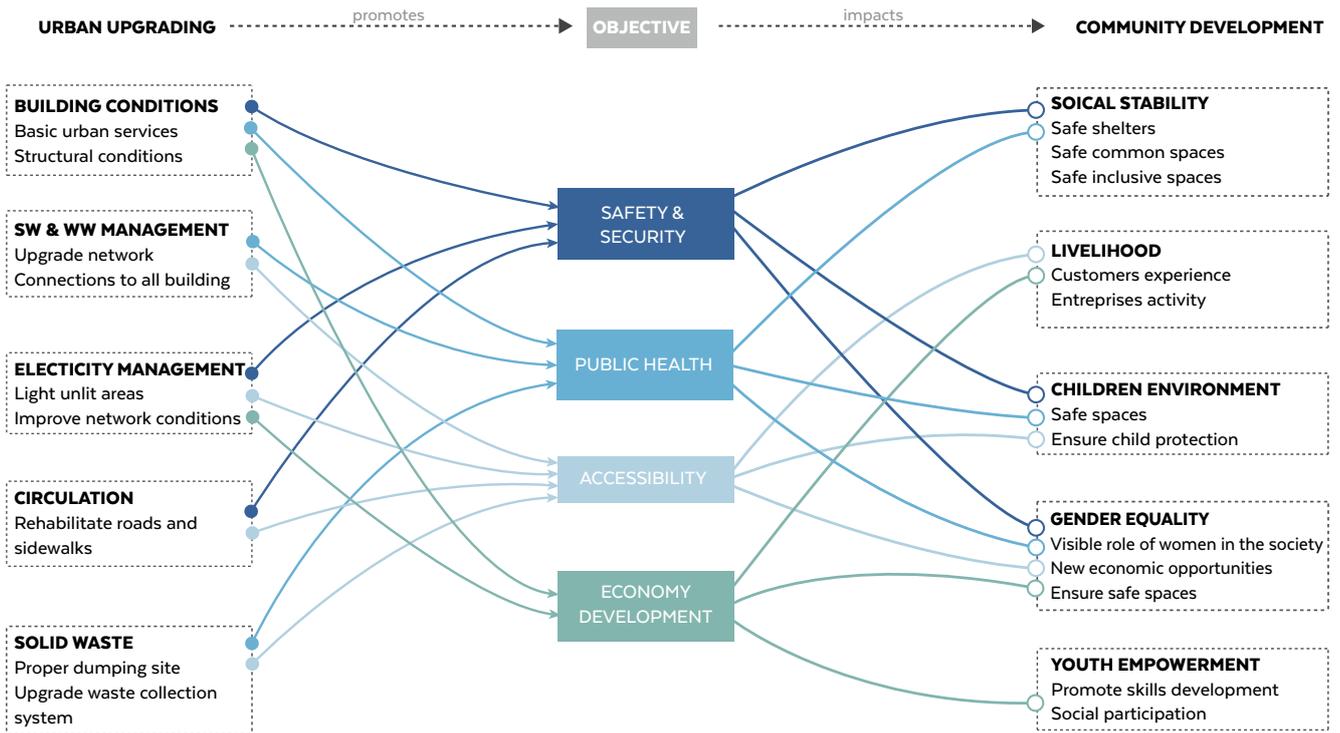


Figure 49 Inter-linkages between urban upgrading interventions and community development responses





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