

BEIRUT URBAN LAB - MARCH 2021

# AN URBAN RECOVERY STRATEGY FOR POST-BLAST KARANTINA

## DESCRIPTIVE MEMORY

### RESEARCH PROJECT TEAM

#### **Beirut Urban Lab Team:**

*Lead: Professor Howayda Al-Harithy*

*Coordinator: Batoul Yassine*

*Research Team: Mariam Bazzi, Abir Cheaitli, Mohamad El Chamaa, Ali Ghaddar, Wiaam Haddad*

*GIS Support Team: Chaza El-Jazzar, Sharif Tarhini*

*Research Interns: Cristina Gosen, Rami Shayya*

#### **Citizen Scientists:**

*Hasan Al-Aswad, Hala Al-Saeed, Wael Al-Saeed, Yehya Al-Ahmad Al-Saeed,*

*Mohammad Al-Sattouf, Mohammad Amsha, Wafqa El-Chehade, Carmen Jabboury,*

*Danielle Khadra, Michelle Khadra, George Tatarian*

#### **Editor:**

*Abir El-Tayeb*



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BEIRUT URBAN LAB 2020-2022

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# INTRODUCTION

On the 4th of August 2020, Beirut experienced one of the largest non-nuclear explosions, whose epicenter was at the Port of Beirut. 2,750 tons of high-grade ammonium nitrate which were stored in warehouse number 12 since 2013, exploded, killing around 200 people and leaving more than 6,500 people injured. Approximately 300,000 people were also displaced from the neighborhoods that were impacted by the blast, including Gemmayze, Mar Mikhael, Geitawi, and Karantina.

These neighborhoods suffered extensive damage and a substantial loss of both tangible and intangible heritage. Shared community spaces and sites of collective memory were crippled, thus, causing a rupture in the socio-cultural practices of the residents.

It was clear from the outset that Lebanon was not prepared for such a disaster. This is due to the absence of a holistic strategy for urban recovery, the shortage of data, ad-hoc decision making, and lack of coordination between different actors on the ground. Informal mechanisms for the restoration of demolished houses and businesses were based on individual negotiations and were not guided by technical standards. Many stakeholders mobilized to respond to the urgent needs of people after the port blast, including local and international Non-governmental Organizations (NGOs), humanitarian agencies, public institutions, professional groups, civil society organizations, and diasporic actors. While it was immediate and engaged, the work of these stakeholders was not properly coordinated, thus, overlapped at many instances. Real-estate profiteers were also looking to invest in the impacted neighborhoods, projecting a future of private-led developments that cater to an exclusive class of wealthy people at the expense of returning the displaced residents.

Most of the stakeholders adopted a short-term emergency response to reconstruction. This approach did not acknowledge the challenges that were posed by the absence of a state as a custodian of the public shared good nor the need for a long-term holistic urban recovery; one that goes beyond the physical to offer a multilayered participatory process that addresses social, cultural, and economic factors.







## 2020 Beirut explosion

# 200

people  
killed

# 6,500

and more  
injured people

# 300,000

people displaced from  
neighborhoods

## The Position of The Beirut Urban Lab on Urban Recovery

The Beirut Urban Lab (BUL) at the American University of Beirut mobilized to advocate for and to propose a long-term, holistic, and participatory recovery. The BUL conceives of urban recovery as a process that is triggered by different acts of rupture and erasure. Such acts impact both the tangible and the intangible elements of the city and include occupation, unjust development planning, economic decline, conflicts, and natural disasters. Urban recovery is therefore neither a post-conflict or disaster condition nor a physically bounded process. It is intertwined with processes of displacement, politics, and power relations across temporal and geographic moments. In its extreme form, it is a process of reconfiguration that responds to all urban vulnerabilities and injustices.

Building on its previous experiences and research on urban recovery, the BUL is well-positioned to challenge government frameworks for post-blast reconstruction by proposing a more holistic and inclusive approach to urban recovery that is people-centered, participatory, socially-just, and heritage-led. Urban recovery, in this case, is understood as a process that restores social and economic networks and recovers spaces of shared memories and social significance to reconstitute both the built and the socio-cultural fabrics of neighborhoods.

## Urban Recovery at the Scale of the Neighborhood: Karantina

Part of the efforts of BUL in response to the blast was to propose an urban recovery strategy for Karantina. Karantina is the area in Beirut that is bounded by three infrastructural and natural elements: the Port of Beirut from the north and west, the Beirut River from the east, and the Charles Helou Highway from the south. Administratively, it is part of the Medawar neighborhood and includes parts of three administrative sectors: Mar Mikhael, Khodor, and Jiser (Figure 1).

It is a particularly vulnerable area and the site of multiple traumas that is now struggling to cope with the aftermath of the port blast. It has an approximate population of 2500 people and a total area of less than one square kilometer. It has a long history of welcoming low-income residents and vulnerable groups of people like refugees and migrant workers.



### Karantina



600ms from the  
epicenter of the blast



approximate  
population  
of 2500 people



total area of less  
than 1 km<sup>2</sup>

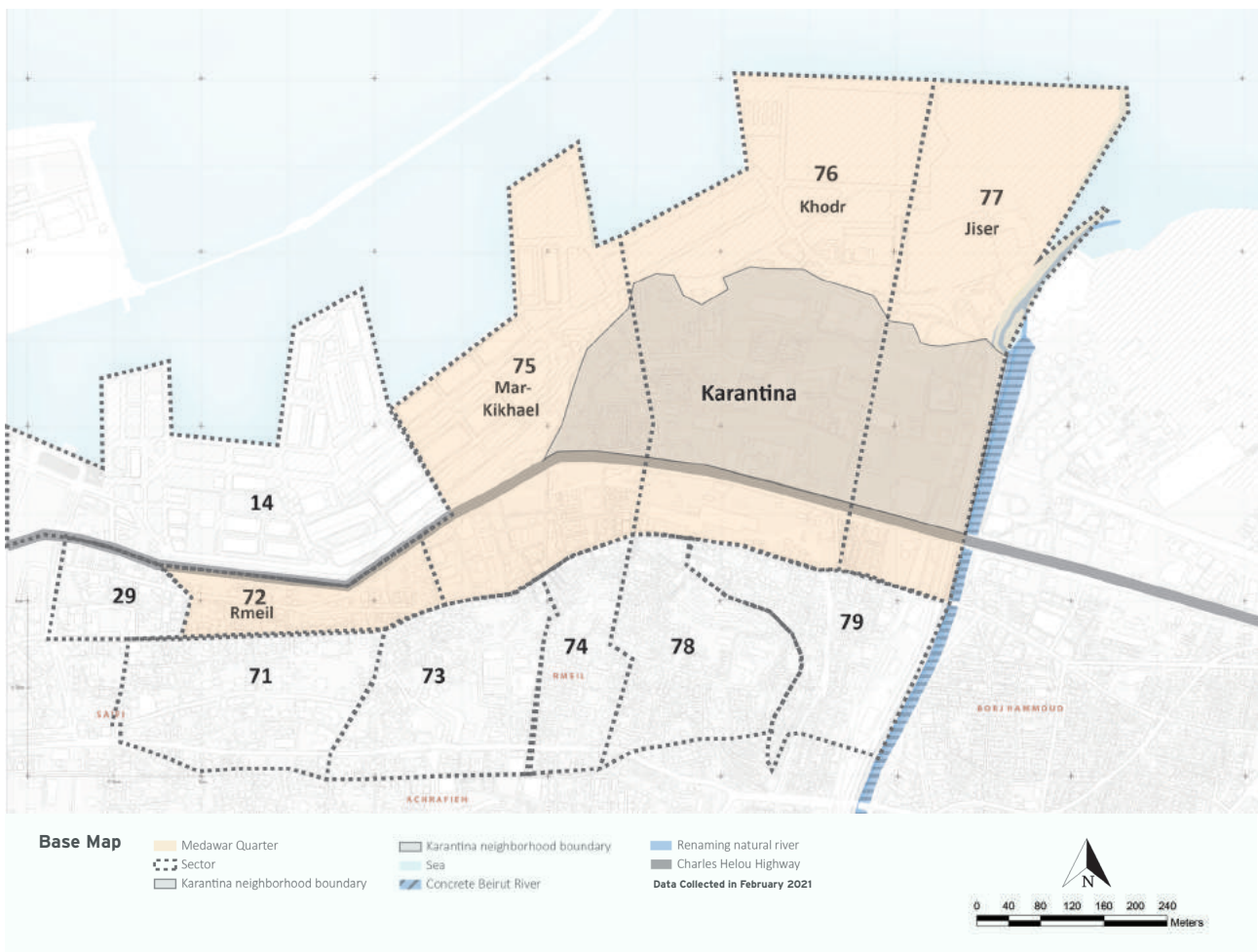


Figure 1: A map that shows the boundaries of Karantina. Source: The Beirut Urban Lab, 2021.

Karantina, which is approximately 600 meters away from the port, was heavily damaged by the blast. Most NGOs, INGOs, civil society initiatives, and media outlets initially focused their efforts and resources on Gemmayze and Mar Mikhael. Therefore, the BUL prioritized Karantina when it mobilized to assist in the urban recovery of the areas that were impacted by the port blast. Karantina is considered the most neglected and marginalized area in Beirut and received little aid and exposure during the first days following the port blast.

Immediately after the port blast, the urban recovery team at the BUL initiated its field reconnaissance phase in Karantina to assess the level of damage (Figures 2 and 3), identify the actors on the ground, record early impressions, and conduct informal conversations with the inhabitants. The team further sought to coordinate with the involved actors on the ground to set a plan that ensures the fair and equal distribution of aid and efforts across Karantina and discuss data sharing and tools of coordination. For that purpose, the team organized the first coordination meeting on 17 August 2020 at the Karantina Public Park and invited the active actors in Karantina. The meeting was then managed by the different actors (Figures 4 and 5). The team identified 73 active actors in Karantina and classified their efforts into short- to long-term interventions that are categorized into four sectors: 1) shelter and reconstruction, 2) cash assistance, 3) food distribution, and 4) medical and mental health aid. In parallel, the team sought to identify entry points to the community to establish a solid network of key community members and representatives. The aim was to build trust with the different community groups, facilitate data collection, and pave the way for potential design interventions in Karantina.



**Figure 2.** Rescue efforts in a collapsed building in Karantina. Source: Hayfaa Abou Ibrahim, 2020.



**Figure 3.** A damaged building in Karantina. Source: Batoul Yassine, 2020.



**Figure 4.** The first coordination meeting in Karantina hosted by The Beirut Urban Lab on 17 August 2020. Source: Mona Fawaz, 2020.



**Figure 5.** Discussions among the actors during the coordination meeting. Source: Batoul Yassine, 2020.

## Project Approach And Methodology

The BUL team approached urban recovery in Karantina as a holistic and participatory process that can redress socio-economic inequalities and contribute to the creation of a more inclusive, just, and viable neighborhood for the people.

This approach to urban recovery was conceptualized and advanced through empowering local communities, driving and disseminating knowledge on local and global scales, building local capacities, providing consultations, and implementing localized design interventions. Ultimately, the aim was to develop a strategy for urban recovery that is people centered, socially just, and place specific.

Toward that end of the research process, the BUL team adopted the CDS model (City Development Strategy), also known as USDS (Urban Sustainable Development Strategy), and adapted it to the scale of the neighborhood in Karantina and to the context of post-blast Lebanon. Furthermore, the BUL team combined the CDS with the Citizen Scientist (CS) model. Both models were selected because they are participatory in nature and can create multi-faceted community engagement. The citizen scientist model aims to train members of the local community and to empower them with the relevant data, research methods, and skills. The result was an active partnership between the BUL team and the different community groups across the different stages of the urban recovery strategy.

The CDS model has five methodological steps, from profiling to designing action plans and indicator systems. Although sequential, the research team kept the process cyclical and reflective.



## THIS REPORT ELABORATES ON THE 5 STEPS OF THE URBAN RECOVERY STRATEGY FOR POST-BLAST KARANTINA.

### 1. BUILD THE NEIGHBORHOOD PROFILE (DESCRIPTIVE MEMORY)

towards identifying the key transversal issues across spatial, social, economic, and cultural factors.

### 2. CONDUCT A STRATEGIC DIAGNOSIS

and develop a comprehensive analysis of the identified transversal issues that are generated from the descriptive memory of Karantina and craft a vision with the community towards setting strategic goals.

### 3. DEVELOP THE STRATEGIC FRAMEWORK

based on the results of the diagnosis and the vision statement to propose a set of strategies. The strategies will inform the content of the action plans. The cross-cutting approach to the diagnosis allows the research team to consider each strategy within one comprehensive framework and pursue value-adding and complementary objectives that are related to the different sectors in Karantina.

### 4. ARTICULATE ACTION PLANS

that lead to the implementation of interventions on different levels and identify key partners.

### 5. DESIGN THE INDICATOR SYSTEM

to monitor, assess, adjust, and update the framework as necessary by reflecting on the process that is iterative; and handover to delegated community groups in partnership with public authorities and private actors as needed.





Figure 6. Phases of the City Development Strategy model. Source: The Beirut Urban Lab, 2021.

Report 01

# DESCRIPTIVE MEMORY

The descriptive memory report was the first step in initiating the urban recovery strategy for Karantina. It provided a general profile of Karantina that informed the next phase of the research; it also identified five key transversal issues in Karantina for diagnosis and analysis. The next phase of the research required collecting detailed data for the analysis of the transversal issues, and the data was verified as the research process unfolded. The research team at The Beirut Urban Lab approached the work as a cyclical process that can integrate new findings as data emerges; the cyclical process also allowed the research team to update the objectives, positions, and initial readings of the study to respond to the new data. The data was also validated by the observations of the research team on the ground and the input from local experts, residents, and citizen scientists.



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Stein-Semler Gallery

Mujtashfa  
Lubiani

The Grand Factory

Sukomi Warehouse

Ago Restaurant

Vclub



# INTRODUCTION

On 4 August 2020, the Port area of Beirut was rocked by a massive explosion, killing over 200 people and wounding more than 6,000<sup>1</sup>. Buildings were destroyed or damaged within a 10 km area around the port, including an estimated 70,000 apartments and nearly 40,000 residential or commercial spaces.

UNHCR partnered with four international organizations (MEDAIR, ACTED, Save the Children, and Intersos) to rehabilitate shelters, restore shared spaces, and introduce the upgrading of selected neighborhood-level communal spaces in six neighborhoods that were severely affected by the blast: Karantina, Mar Mikhael, Geitawi, Badawi, Bachoura, and Karm el-Zeitoun (Figure 1).

In this framework, ACTED and the Beirut Urban Lab at the Maroun Semaan Faculty of Engineering and Architecture (MSFEA) at the American University of Beirut (AUB), partnered to develop an assessment meant to support the effort of locating the recovery efforts within an urban-scale approach in each of the above-mentioned neighborhoods.

This report is one of the six Urban Snapshots conceived by The Beirut Urban Lab (BUL) in partnership with ACTED and funded by UNHCR in Fall/Winter 2020-2021.

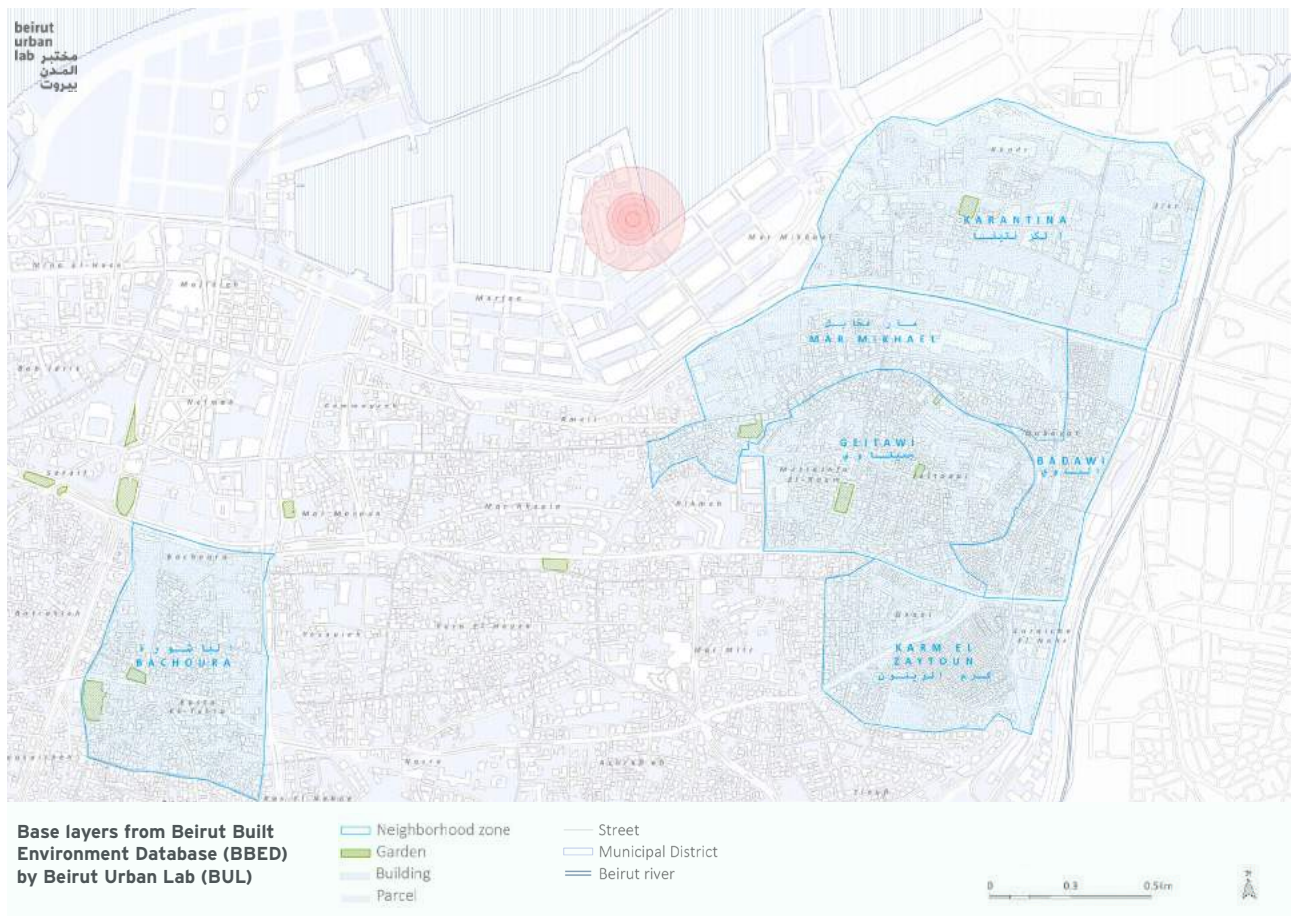


Figure 1: Zone Limits in Selected Neighborhoods. Source: The Beirut Urban Lab, 2020.

## The reports are designed to:

- a)** Inform the understanding of each of the four INGOs and UNHCR about the urban processes underway in each of the neighborhood prior to the port blast, focusing on those processes that are likely to slow-down or threaten the return of residents and the recovery of the neighborhood
- b)** Whenever possible, point the INGOs in each of the neighborhood towards potential communal projects of important social relevance.

Further, the Urban Snapshots have the potential to support the work of the community of social workers, city planners, urban designers, researchers, activists, and others who are intervening with relief, repair, and recovery in short, medium, or long term development in Beirut in response to the 4 August 2020 port blast.

The assessment built on the knowledge and research of The Beirut Urban Lab about each of the six neighborhood's history and urban conditions. Additional fieldwork was conducted by a team of field researchers to gather the needed information from neighborhood-level interviews and discussions with residents, NGOs, etc.

Each of the reports locates the effects of the explosion within the larger urban trends that have influenced the studied neighborhood over the past three decades. It does so by providing a preliminary urban documentation and analysis of the neighborhood conditions, including a brief historical overview, insights about contextual urban trends, profiles of influential stakeholders, and a brief review of socio-spatial conditions. To the extent possible, the reports thus cover both urban trends and recovery efforts at the household (e.g., resident, business-owner), building, and neighborhood scales (e.g., shared space, road, recycling).

Each report further unravels some of the critical threats that are likely to undermine the recovery of each neighborhood, including dwellers' return, the rehabilitation of shared spaces and amenities, the reignition of economic activities, and the restoration of tangible and intangible heritage.

The reports are not conceived as exhaustive surveys. Rather, they are snapshots, taken at a specific moment (i.e. November-December 2020), yet located within a solid understanding of the economic, social, and political forces that influence Beirut's ongoing urbanization. Indeed, they build, as outlined thoroughly in the methodological section, on pre-existing knowledge of the neighborhood developed at the BUL and complemented by data gathered during November and December 2020 directly in the neighborhoods.

# METHODOLOGY

The selection of neighborhoods and the delineation of their boundaries were proposed by UNHCR, reflecting its areas of intervention. In order to improve the coherence of the study and its recommendations, the BUL research team introduced mild modifications in delineating neighborhoods to account for the internal characteristics of the neighborhood, particularly lot morphologies, building typologies, and population profiles. Neighborhood boundaries do not coincide to official administrative boundaries.

The reports are the result of the work of six field researchers, one reporting officer and one research team coordinator hired by ACTED who were trained by The Beirut Urban Lab (BUL) team and worked under its supervision from October to December 2020. The positions were filled through a transparent and competitive process that put the emphasis on previous experience and methodological trainings; three of the six fieldworkers had worked for The Beirut Urban Lab before, and another was a recent graduate of the Master in Urban Design program at AUB.

The production of this report relied on case-study research methods of data collection as defined by Yin.<sup>2</sup> In essence, Yin sees the goal of case studies as understanding complex social phenomena, relating data to propositions and aiming at analytical generalization as if they were an experiment. By nature, case-study research is qualitative as it seeks to provide in-depth evidence in lieu of quantitative data. Case-study research typically uses multiple methods to collect different kinds of evidence (e.g. documents and archival records; interviews; direct and participant observation; physical artifacts; surveys), as this insures the triangulation and cross-checking of evidence, and hence more rigorous and valid data analysis.

## **For this report, BUL relied on five data sources collected through:**

- (i)** desk reviews of available publications, technical reports, records and other documents;
- (ii)** field observations (direct and participant)
- (iii)** qualitative semi-structured interviews with key informants (e.g. mukhtar(a), NGOs' representatives) according to protocols described below, as well as informal conversations with residents and business-owners;
- (iv)** data from the shelter technical assessment collected by INGOs intervening in the area and provided by UNHCR in December 2020;
- (v)** surveys and maps compiled by the BUL's researchers about Beirut's built environment in the context of the Beirut Built Environment Database (BBED)<sup>3</sup>.

<sup>2</sup> See Yin R.K, Case-Study Research: Design and Methods (2014) London: Sage.

<sup>3</sup> The Beirut Built Environment database is an online GIS platform developed by The Beirut Urban Lab at the American University of Beirut. The initiative brings together a collection of maps, documents, and surveyed indicators about actors as well as spatial and environmental characteristics that can inform ongoing research, public policy making, and advocacy about the city. It also relies on a database of building permits dating back to 1996.

## **(i) Documents and Records (Desk review)**

Data analysis relies on the review of several gray reports<sup>4</sup>, academic research, and references available about the neighborhood. They are listed as footnotes throughout each report whenever they were used as evidence for the documentation and analysis of some of the neighborhood's urban trends.

## **(ii) Field Observations**

The researchers conducted fieldwork for about 12 full days in the neighborhood (1.5 day per week for a duration of 8 weeks, on the average), observing directly the built environment, documenting damaged constructions and processes of physical repair in residences and businesses, as well as noting the following: shops' activity/closure; buildings' quality and condition; abandoned/dilapidated buildings; clusters of impoverishment; construction activity; heritage buildings; the use of open/public spaces by the community and presence of greenery; infrastructure conditions (access to water and electricity, traffic congestion, conditions of streets, sidewalks and stairs); options for waste disposal.

The researchers also observed social interactions in the neighborhood, when they occurred and documented them, including groups of migrant workers and refugees. They were tasked to also document key landmarks in the neighborhood (educational, religious, cultural, corporate), and to report visible political sites and signs (flags, icons, posters, markings on walls). These observations were recorded as field notes and mapped, when relevant, serving as evidence that substantiates several claims made in this report, as indicated in the text.

## **(iii) Qualitative semi-structured Interviews and Conversations with key informants**

The field researchers were trained to conduct semi-structured qualitative interviews with key actors in the neighborhood they were able to reach out to amidst the difficult working conditions posed by the COVID-19 pandemic. In each of the neighborhoods, researchers interviewed the elected: local representative (mukhtar(a)), NGOs' representatives, as well as dwellers and business-owners who stayed and are engaged in the repair process. The interviews' questions were organized in three broad categories: (a) Awareness about the actors in charge of repair (do they know who is in charge, who visited them, who returned, what support were they provided with thus far); (b) Respondent's tenure status (do they own or do they rent, do they pay in real or Lebanese dollars or in LBP, how precarious is their tenure situation, do they get any support from family abroad, what are their future plans: are they staying or leaving, and why?); (c) Processes of repair (did they receive support, for what, from who, where is the process at, what is still to be done, are damaged common spaces fixed?). In addition to formal interviews, researchers also held informal conversations with residents and business-owners, on selected sections of the interview guide.

All interviews and conversations were conducted after securing verbal consent and according to ethical standards of social research. Cited interviews and conversations have been anonymized and personal identifiers removed to protect interlocutors.

Field observations and qualitative interviews were documented by field researchers through pictures and detailed notes, geo-referencing the location wherever possible. They then reported the interviews and developed fact sheets that were discussed with the rest of the team.

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<sup>4</sup> Gray literature is produced outside of the traditional commercial or academic publishing and distribution channels and typically includes reports, working papers, government documents, white papers and evaluations. Organizations that produce grey literature include government departments and agencies, civil society or non-governmental organizations, academic centres and departments, and private companies and consultants.

#### **(iv) Quantitative Technical Assessment Data collected by INGOs operating in the area under UNHCR funding**

Qualitative findings are complemented by an analysis of technical assessment data shared by UNHCR, providing technical assessment of a prioritized number of damaged houses in the six neighborhoods (according to criteria set by UNHCR), conducted in Fall/Winter 2020 by its INGO implementing partners (one per neighborhood). BUL researchers analyzed this dataset and extracted statistical information from it, which is referred to in the other six reports. It should be noted that the technical assessments were conducted in specific targeted areas of each neighborhood as part of the shelter response implementation, therefore not resorting to any type of probability sampling.

Furthermore, the data used as part of this research originates from UNHCR partners only, thereby not taking into account any other technical assessment data that may potentially have been collected by other actors in the area. As such, corresponding findings may not be extrapolated to the entire neighborhood, but rather interpreted as a useful triangulation source for the findings deriving from qualitative data sources. The total number of surveyed units in the 6 neighborhoods amount to 5316, including only 3 in Karantina. Given the very small number of assessments led in Karantina, quantitative data was deemed not statistically representative nor informative, and thus not used in the present report.

#### **(v) Spatial Data and Mapping**

The report relies largely on spatial data compiled within the framework of the BUL's Beirut Built Environment Database (BBED), which has been made available thanks to the MoU agreed upon between ACTED and BUL. This includes data regarding: population size; density; damage assessment; building age; building height; real-estate developers' profiles; vacancy rates; number of loans acquired from the Public Corporation for Housing (PCH); open public spaces and unbuildable lots. Data listed in the BBED is based on official records of filed building permits at the Lebanese Order of Engineers and Architects, official property records from the Land Registry, comprehensive field surveys, and registration records. This information is reported within the text itself, in related sections. It is used as a main source of evidence in the "Urbanization Trends," "Socio-Demographic Profile," "Housing Conditions," and "Quality of Public Spaces" sections of the report.

Readers should acknowledge the fact that the Urban Snapshots were not designed following a Neighborhood Profile approach, which would have required more time and resources. The Urban Snapshots were developed in the aftermath of the Beirut explosions, during the Fall/winter 2020-2021. BUL relied on the most relevant and up-to-date available data from the sources listed above, while more generally coordinating with the Forward Emergency Room (FER). Figures that relate to emergency response actors' achievements reflect information as collected during the research period. As such, they are not meant to provide an up-to-date nor comprehensive overview of all achievements as of end of December 2020. No systematic and comprehensive surveys of damaged housing and business units were made available, with detailed datasets regarding associated tenure, socio-economic, infrastructure and other variables, which would have allowed us to derive more precise patterns and urban trends associated to the Blast.

The health situation in the country also constrained BUL from conducting a larger number of interviews with dwellers, business-owners, and stakeholders to profile in more depth and with more rigor the modalities of repair in the neighborhood, the governance of actors, and inscribe recommendations for community-based projects in a sound analysis of power groups and opportunities and challenges for intervention. Yet, BUL believes this report successfully points towards potential communal projects of important social relevance, paves the way for this work to be further developed out by actors working on the Port Blast recovery, and presents productive avenues for future research projects and community-level initiatives.



# What is unique about Karantina?

This report covers the neighborhood of Karantina (Figure 2). Of the six neighborhoods included in this project, Karantina stands out as being “outside” the city. Indeed, the neighborhood historically the city’s quarantine. This position was exacerbated over the years by the development of the main Beirut-Tripoli highway that separated the neighborhood from the rest of Beirut and placed it in a permanent state of exception. This state of exception is rendered acute by the legacy of the civil war and the continued militarization of the neighborhood.

Due to the close proximity of Karantina to the blast’s epicenter and the deteriorated physical conditions of its residential fabric, the area suffered severe damage. Repair is also slow in areas where structural damage was induced since NGOs have been unable to address this category of damage.

Fieldwork for Karantina was conducted as part of the larger team of The Beirut Urban Lab that has established a bottom-up research unit in the neighborhood in partnership with UNDP. Field Researcher Abir Cheaitli joined the team to collect information needed for this report and bridge between the ACTED-UNHCR team and the BUL-UNDP teams. It is noteworthy that the structure of this report defers a little from the other five reports due to the choice that was made to participate with the team on the ground from the BUL for the study.



Figure 2. Boundaries of Karantina. Source: The Beirut Urban Lab, 2020.

# I. NEIGHBORHOOD CHARACTERISTICS

## 01. Area of Study

### A. Geographic context Neighborhood Definition

For this study, the BUL defined the neighborhood of Karantina as extending over the entire area of Municipal Beirut that falls North of the Charles Helou highway and east of the port, within the Medawar neighborhood. As such, the neighborhood is confined by hard borders that separate it from the rest of the city. These include natural edges, like the Beirut River and physical infrastructure, like port and highway.

One could assume that this entire area is one neighborhood. However, Karantina includes many different zones, as will be described in the Land Use, Zoning, and Density section. It also holds heavy burdens that stand powerfully in the way of making this area a livable neighborhood, as will be described fully in the report.

These include militarization, the close proximity to the port, large-scale infrastructure causing pollution, as well as the legacy of the Lebanese Civil War that made the area largely undesirable for residential functions and increased the attraction of small and medium-sized industries.

As a result, rupture, religious/political divisions, isolation, and severe disconnection from the rest of the city are characteristics that describe this neighborhood; and recent processes of reconstruction and recovery exacerbated on those patterns.

## 2. Historical Overview

Historically, the neighborhood was the site of the city's quarantine. Built in 1834-5 during the brief period of Egyptian rule by Mohamad Ali Pasha through his son Ibrahim Pasha, the quarantine would serve for decades as the site of isolation that protected the city from diseases brought by outsiders. At the turn of the 20<sup>th</sup> century, Karantina began to consistently house impoverished communities, beginning with Armenian refugees fleeing the massacres in Anatolia and extending eventually to include Kurdish refugees, Palestinian refugees, and poor rural migrants from Lebanon's most deprived neighborhoods (Kassir, 2003 and Fawaz & Peillin, 2003) (Figure 3). As such, population displacements have always had significant historical, political, social, and cultural effects on Karantina's population. The neighborhood served eventually as a reservoir of cheap labor for the nearby port and industries, but also as a hotbed of mobilization in the early years of the Lebanese Civil War in 1975 (Massabni, 1977)(Figure 4).

Aside from the poverty of its dwellers and its consistently deficient infrastructure, the neighborhood's isolation was exacerbated by the passage of the Charles Helou highway in the late 1950s, which severed it from nearby Mar Mikhael, effectively shaping it physically as the backyard of the city. As such, although the quarantine was closed around a century ago, the neighborhood's name continues to reflect, and rightfully so, its isolated condition.<sup>5</sup>



In 1972, a study of the neighborhood estimated the population of Karantina at about 12,600 living in about 2,540 houses with an assumed average of 5.5 persons per household (Take, 1974). At the time, Lebanese nationals constituted 29.6% of the population while Syrian, Palestinian, Iraqi, and Armenians constituted 70.6%. Shortly after, the neighborhood witnessed one of the worst massacres and entirely changed the population of the neighborhood.

In 1976, during the Lebanese Civil War, Karantina was a site of notorious massacres that decimated much of its Muslim population (Massabni, 1977). Since the end of the Lebanese Civil War (1990), Karantina has gradually housed waves of poor families, including Lebanese and Syrian. Karantina is also the site of numerous public infrastructures, including the city's (now-closed) slaughterhouse, flour mills and the main headquarters of the waste management facilities. In the few years before the blast, Karantina witnessed an influx of higher-end economic activities as well, as will be outlined in the trends below.

## Karantina History



Built in 1834-5 during the brief period of Egyptian rule



the quarantine served for decades as the site of isolation that protected the city from diseases

### 1972



estimated population of 12,600 people living in about 2,540 houses



Lebanese Nationals: 29.6% of the population



Syrian, Palestinian, Iraqi, and Armenians: 70.6% of the population



**Figure 3.** Refugee camp in Karantina in the 1920s. Source: George Grantham Bain Collection, Library of Congress.

### 1975



Notorious massacres decimated much of its Muslim population



**Figure 4.** Photograph by Françoise Demulder during the Karantina eviction of Palestinian occupants (1976). Source: <https://www.worldpressphoto.org/collection/photo-contest/1977/françoise-demulder/1>.

<sup>5</sup> It is noteworthy that there is no study of the impacts of the highway. It is however sufficient to look at aerial photographs to assess it.

## 03. Planning Parameters

### Neighborhood Reading

Karantina includes several zones and functions. Field visits, interviews, and gray literature reviews show complex land use patterns in the area (Figure 5). These uses include residential (of multiple national and religious denominations), industrial, recreational (e.g., bars, nightclub), cultural, military, public (e.g., municipal parking areas, hospital) as well as an industrial zone and a cluster of businesses.

Based on the history of settlements and political and religious alliances, the residential neighborhoods of Karantina can roughly be described as three: Al-Saydeh sub-neighborhood (west), Al-Khodor sub-neighborhood (upper northeastern side), and Al-Senegal sub-neighborhood that lies between the two. It is noteworthy that some of the poorest residential settlements of the pre-civil war era have never been rebuilt.

The three residential neighborhoods differ considerably. Aerial photographs indicate that Al-Saydeh sub-neighborhood was historically directly connected to Mar Mikhael, a reality confirmed by residents of the neighborhoods.<sup>6</sup> Named after Al-Saydeh Church, the neighborhood maintains some of the historical/religious and social allegiances with the area including its predominantly Christian population and an affiliation to the Lebanese Forces and Kataeb, two Lebanese Christian parties.<sup>7</sup> Al-Senegal sub-neighborhood serves as the transition between the two other sub-neighborhoods.

The passage of the highway severed the neighborhood and created a separate entity. However, the urban fabric maintains a relatively similar quality of consolidated physical structures, residential buildings, etc. Conversely, Al-Khodor sub-neighborhood is a mixture of Lebanese and Syrian Sunni Muslims.<sup>8</sup> In line with Al-Saydeh sub-neighborhood, the cluster owes its name to Al-Khodor mosque nearby, on the other side of the highway, from which they were severed in the 1950s. However, given their historical nomadic trajectory and their old settlement by the nearby slaughterhouse, they are often referred to as "Arab al-Maslakh" (Arabs of the Slaughterhouse) - a term they consider derogatory.

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<sup>6</sup> Aerial photographs from the personal collections of researchers in The Beirut Urban Lab.

<sup>7</sup> Information about the naming of the neighborhood was widely reported among its current residents and confirmed by the existence of the church in the neighborhood. The two parties have offices in the neighborhood.

<sup>8</sup> Based on a full survey of the neighborhood conducted by the BUL-UNDP joint teams. For more, please see [www.beiruturbanlab.com](http://www.beiruturbanlab.com)

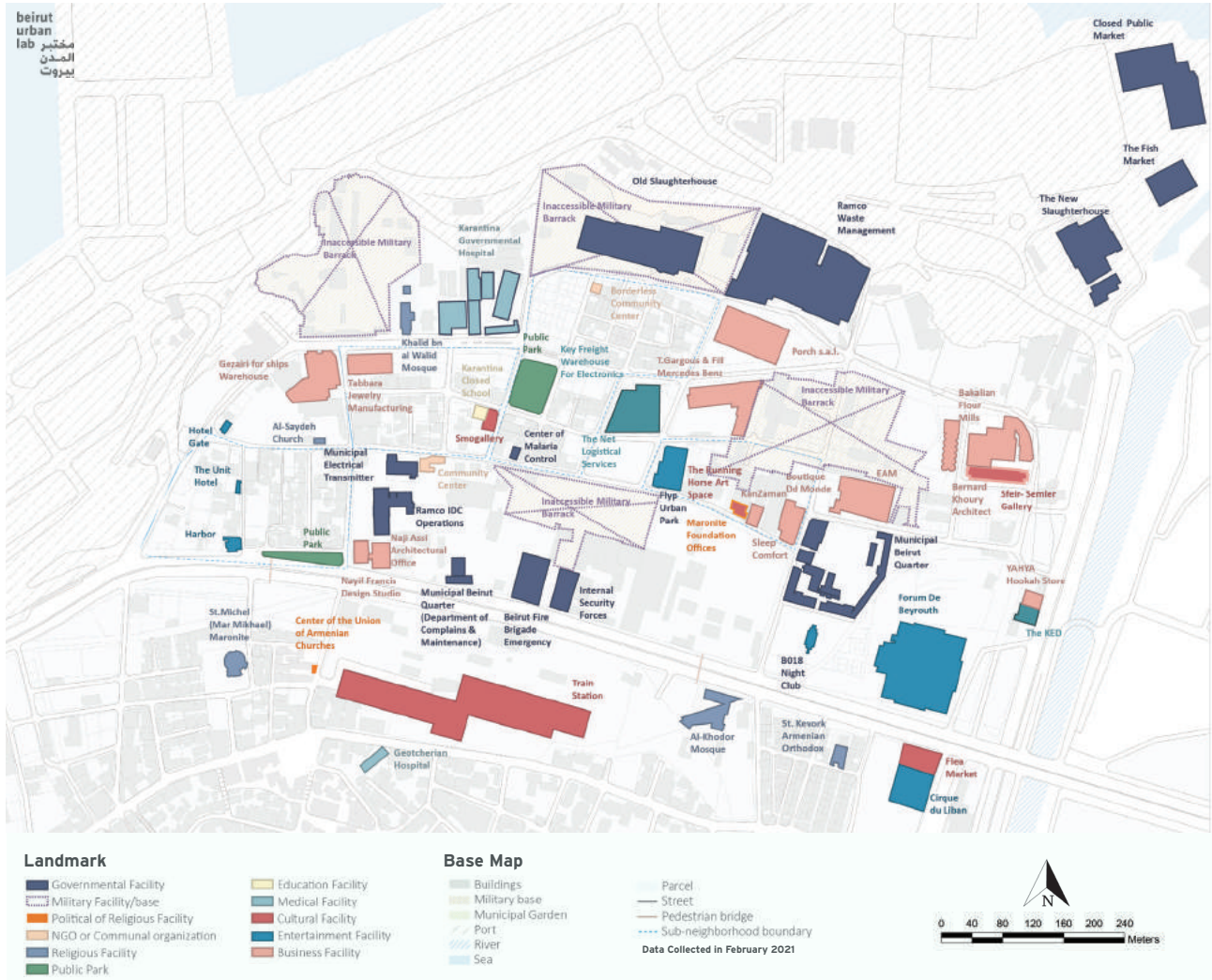


Figure 5. Neighborhood Landmarks in Karantina. Source: the Beirut Urban Lab, 2020



## Land Use, Zoning, and Density

A figure ground map (Figure 6) revealed interesting information about the physical environment of Karantina. The map shows that the physical built-up area in Karantina is approximately 30%. According to data gathered from the BBED, Karantina has an area of 645,126 sq. m, and holds 364 buildings with a total footprint of 160,817 sq. m. This is likely the lowest density in Beirut after Downtown. The relationship between the built and unbuilt spaces, which imposes low density, is mainly due to the history of the area, the local zoning, land-use regulations, and the militarization of the area.

Furthermore, this scattered configuration is the result of Karantina's complex historical patterns. The Civil War brought Karantina's informal settlements to the ground on 18 January 1976, leaving most of its inhabitants displaced. After the war was over, many residents came back. Some were able to rebuild what was destroyed while others were surprised to find their land occupied by the military (ARIJ, 2013).

## ArcGIS Web Map

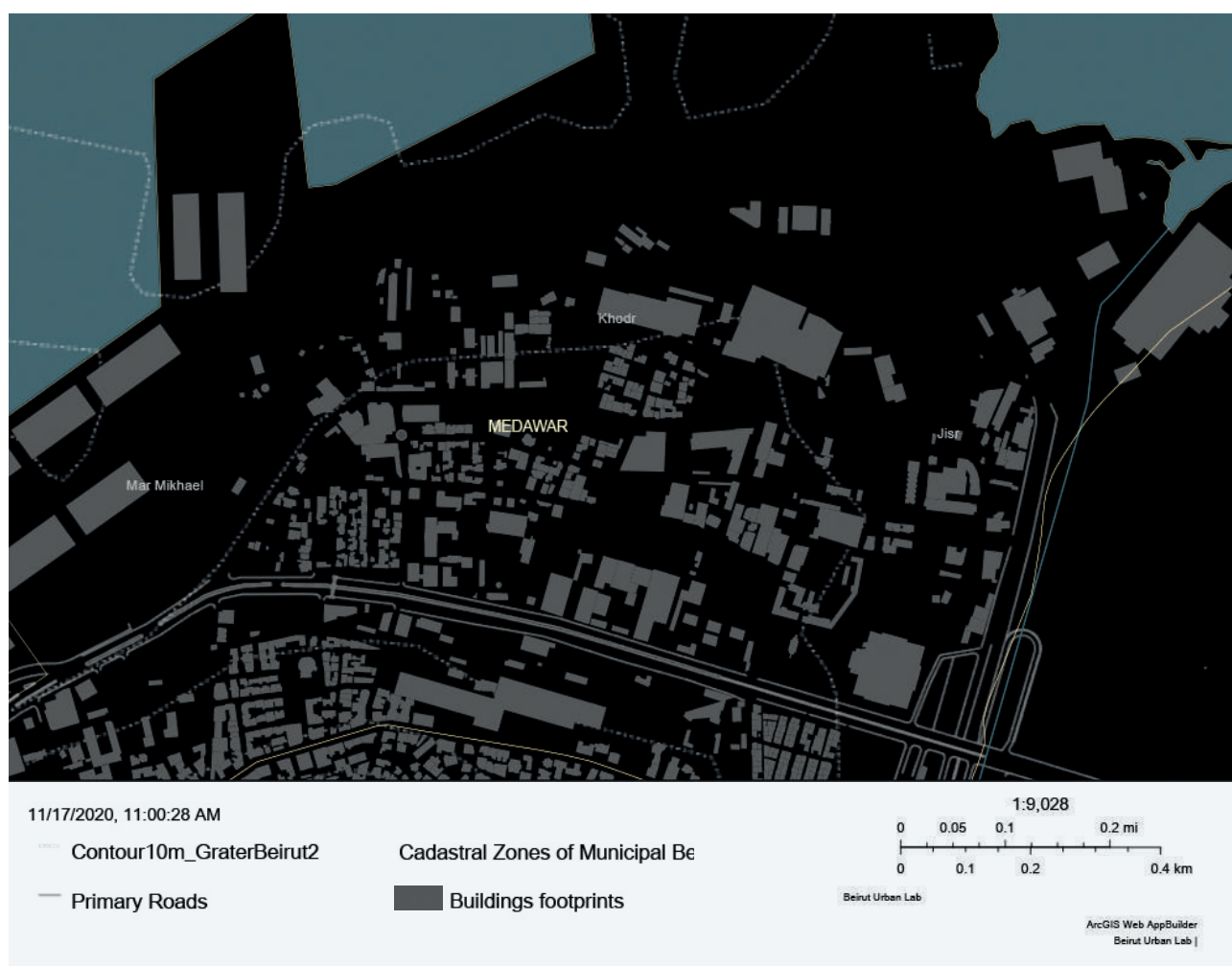


Figure 6. Figure ground map of Karantina, Medawar (built-up area vs. empty spaces). Source: BBED, Beirut Urban Lab, 2020

## 04. Main Urbanization Trends Influencing the Neighborhood at the Time of the Blast

The analysis of the socio-spatial and socio-economic patterns of development revealed trends of urbanization in Karantina. The aim of this analysis was to understand the urban fabric and highlight current challenges that impact connectivity, inclusivity, and livability of its residents and Karantina as whole neighborhood. These trends, in turn, should inform the approach of repair and reconstruction.

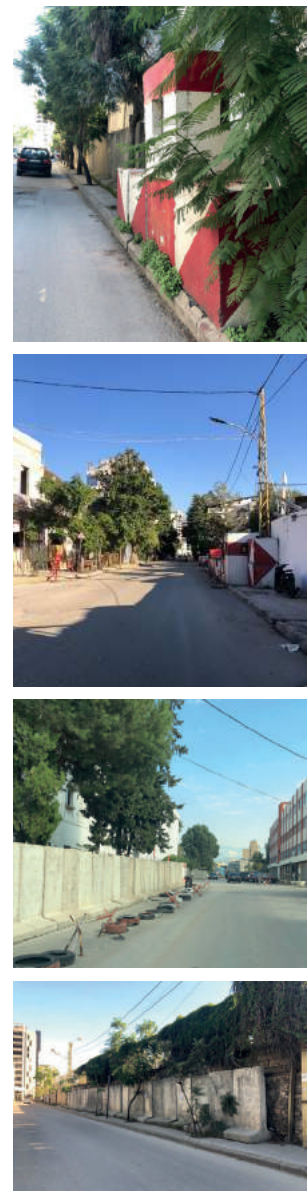
### A. MILITARIZATION

Militarized security is a defining aspect of Beirut's public and shared spaces. A 2010 study conducted by Mona Fawaz, Mona Harb, and Ahmad Gharbieh shows that this security substantially influences everyday life, reorganizes the city's multiple publics, and enforces numerous forms of restrictions on some of the city's users, while facilitating the fluid circulation of others.

If Beirut is heavily militarized, Karantina presents an extreme case. Military security elements are observed everywhere during fieldwork in Fall 2020: on the streets, sidewalks, and in open public spaces. Many sidewalks and streets have been encroached on by physical security elements, such as cement barriers, metal meshes, signs, and speed bumps. In many places, sidewalks and streets are completely blocked and the flow of public circulation is interrupted. Some of these physical elements seem to be laid out haphazardly and forgotten (Figure 7).

The history of militarization of Karantina dates back to at least 1975 and the beginning of the Lebanese Civil War. As noted above, the neighborhood was a site of intense fighting and was identified by powerful militias at the time as a site of threat housing undesirable populations. The area was then bulldozed (Battah, 2016). Eventually, the Lebanese Army replaced the militias' headquarters and militarized the area completely. This militarization was further reinforced post-9/11 when security around main infrastructures, such as the port, was globally enhanced.<sup>9</sup> As a result, to-date, four military bases are distributed at the peripheries of Karantina. During interviews with residents, several claimed that one of the military bases, Site #2 shown in (Figure 5), is situated on private lots still claimed by their owners who had fled their homes during the Civil War.<sup>10</sup>

Some of the residents interviewed about the heavy presence of the Army in the area showed resentment. Among them, a few claimed that they were the owners of properties squatted by the Army and currently live in Karantina in rental houses. They expressed strong frustration and mentioned that they would be able to address their current financial distress only if their properties were returned to them so that they could sell them. Other resident-interviewees claimed that the existence of military bases keeps the area safe from potential security threats.



**Figure 7.** Encroachments of military security elements on public spaces (sidewalks and streets). Source: Abir Cheaitli, 2020.

<sup>9</sup> For rising port security globally, see, for example, Faist, T. (2004) The migration-security nexus. International migration and security before and after 9/11. Malmö University Electronic Publishing

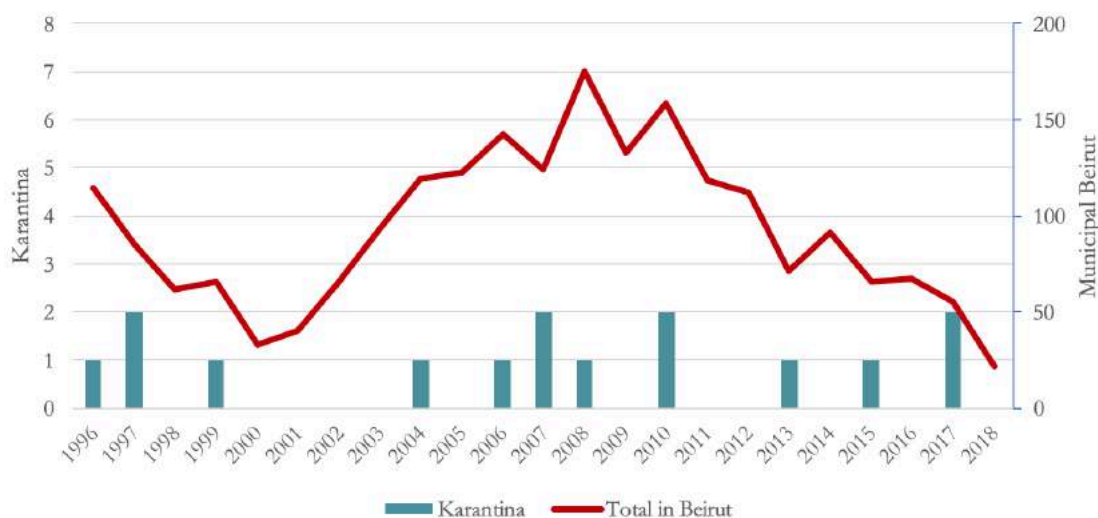
<sup>10</sup> Researchers from The Beirut Urban Lab were able to verify the private ownership of the lot but not the trajectory of the residents.

## B. INCREASING TYPE OF FUNCTIONS (POTENTIAL GENTRIFICATION)

Establishment of various industrial and cultural activities along the eastern edge of the neighborhood were showing their very early marks at the time of the blast. They were denounced by a few journalists and researchers who noted the arrival of artists, designers, and club owners, many of whom were attracted by the low rent market (Stoughton, 2019). Much of these activities were commercial. Some saw these movements as part of a positive trend since it brought a new wave of youth and engagements of younger generations into the area. Yet, the movement was also seen as a threat to existing locals and their family businesses who saw this as potentially a first wave of displacement and gentrification similar to what has occurred in nearby neighborhoods such as Gemmayzeh and Mar Mikhael.

Nevertheless, in recent times, the once known “isolated Karantina” was revived by the overflow of locals with distinct identities and specialties, introducing a new dimension of land use and user groups. For example, high-end venues opened in old warehouses and factories, such as Forum de Beyrouth, followed by places like Flyp Urban Park, Grand Factory, which was designed to “resemble an abandoned factory being reclaimed by nature,” and Ballroom Blitz, housed in a former Harley Davidson showroom (ibid). Artists were also attracted to the area and opened their own galleries and ateliers, such as the SMO, Karen Chekerdjian, Art Factum, and Sfeir-Semler galleries (Figure 5). These trends had led a few researchers to suspect that some of the trends documented in nearby Mar Mikhael could be repeated here.<sup>11</sup>

Conversely, Karantina has not experienced the type of building development as in all other neighborhoods of the city. As shown in the graph in figure 8, new residential permits and developments have been consistently a small number of the city's total, keeping the influx of new residents to a very low level.<sup>12</sup>



**Figure 8:** Graph of building permits filed in Karantina and Municipal Beirut. Source: Beirut Built Environment Database (BBED), Beirut Urban Lab, 2020. Source: The Beirut Urban Lab, 2020

<sup>11</sup> For a review of property and gentrification in Mar Mikhael, see Fawaz, M., Krijnen, M., & El Samad, D. (2018). A property framework for understanding gentrification: Ownership patterns and the transformations of Mar Mikhael, Beirut. *City*, 22(3), 358-374. For a broader reading of gentrification in Beirut, see Tonkiss, F. (2018). Other gentrifications: Law, capital, and spatial politics in Beirut. *City*, 22(3). <https://doi-org.ezproxy.aub.edu.lb/10.1080/13604813.2018.1484638>. For a broader theorization of the threats of gentrification, see Smith, N. (1987). Gentrification and the Rent Gap. *Annals of the Association of American Geographers*, 77(3), 462-465. JSTOR. <http://www.jstor.org/stable/2563279>

<sup>12</sup> Data about building permits was obtained by The Beirut Urban Lab from the Order of Engineers and Architects in Lebanon in 2019 and all data points were surveyed to double-check their validity. Please check the Methodology section, in the beginning of this report or visit the BBED website for the detailed methodology used to collect and analyze the data.



## C. PUTTING KARANTINA UNDER STUDY AFTER THE PORT BLAST

Some of the buildings in Karantina display elements of the so-called traditional Lebanese houses: high ceilings and arcades, three windows in the shape of arches, and sandstone. Others have a simple modern façade and reflect another important architectural moment<sup>13</sup> (Figure 9).

Unfortunately, many of the buildings identified during fieldwork were either abandoned or deteriorated. They seemed uninhabited since the end of the Civil War. Researchers detected during field visits that many of the buildings' exterior facades were riddled with bullet holes and still bore battle scars (Figure 10). After the blast, some of these buildings were further damaged. A few are in danger of collapsing<sup>14</sup> (Figure 11).

Ironically, this deterioration was sometimes perceived as positive by some of the landlords who were interviewed by the researchers on the team. Some confessed that it was a welcome sign to evict tenants on old rent control. Others also celebrated the collapse of buildings, which they saw as an opportunity to sell the property and gain profit.<sup>15</sup>

In an attempt to minimize the aforementioned risks and threats, the neighborhoods impacted by the port's explosion were put under study by the Directorate General of Urbanism (DGU) to freeze development (selling and demolishing buildings). This will protect the area temporarily for one year.<sup>16</sup>

It is noteworthy that the Directorate General of Antiquity (DGA) underwent a detailed damage assessment of buildings with heritage value in the impacted neighborhoods, one of which is Karantina. In this regard, the DGA had a say in the restoration of some of the damaged buildings especially in Al-Saydeh neighborhood where the main actor (Offre Joie) had to coordinate with them on the details of the restoration process, such as building materials and finishing.<sup>17</sup>



**Figure 9.** Two distinct building typologies  
Source: Abir Cheaitli, 2020.



**Figure 10.** Traces of bullets on buildings.  
Source: Abir Cheaitli, 2020.



**Figure 11.** Abandoned and deteriorated buildings.  
Source: Abir Cheaitli, 2020

<sup>13</sup> Evaluations of the architectural value of these buildings was conducted by the BUL team, among whom we count a renown architectural historian, Dr. Howayda al-Harithy. Unfortunately, we were unable to obtain any correlation of the classification of building from official sources and/or UNHCR technical assessments in this area.

<sup>14</sup> Assessment based on the structural evaluations of the Order of Engineers and Architects in Beirut. The survey was obtained through the partnership between the OEA and the BUL.

<sup>15</sup> For more on the effects of heritage and the tense relations between landlords and tenants, please refer to: Kanafani, S. (2016), *Made to Fall Apart, An Ethnography of Old Houses and Urban Renewal in Beirut*. Ph.D. dissertation in Social Anthropology at the University of Manchester. For more on the issue of the rent gap and the incentives for landlords to demolish their buildings, please see Krijnen, M. (2018), "Gentrification and the creation and formation of rent gaps", *City* 22(3): 437-446.



## D. A RENTAL MARKET TARGETING A VULNERABLE POPULATION

### Loss of Livability & Increased Fragility

Since the end of the Lebanese Civil War, Karantina has hosted a vibrant rental market. Of particular interest is the segment of the market targeting refugees and migrant workers, an expanding informal rental market where tenants suffer from high levels of vulnerability. The expansion of the market is particularly remarkable in Al-Khodor sub-neighborhood. In addition to this flexible market, the neighborhood includes another stable residential rental market that was, until recently, legally protected by the rent control law.<sup>18</sup>

### A Rental Market for Migrant Workers and Refugees

In this market, contractual agreements are oral, flexible, and largely unregulated. The housing units are also flexible, sometimes re-subdivided, rooms are added on roofs, etc. Housing units often accommodate more than one family at a time, allowing households to share rent in times of difficult financial conditions.<sup>19</sup>

Several interviews conducted in Al-Khodor sub-neighborhood showed that many of the apartments are inhabited by two to three Syrian families. One interview showed that there are three families of 12 members in total who are living in a single apartment that consists of one bedroom, one living room, one small kitchen, and one bathroom.

The change in the rental market has triggered a modification in the population profile of Karantina as it increased the presence of Syrian refugees. This change resulted in the influx of foreigners from different nationalities into the area, to the chagrin of Lebanese residents.<sup>20</sup> During interviews conducted in Fall 2020, many long-term residents complained that they have lost the sense of the tight-knit neighborhood, village, or place where everybody knows each other's name. Adding to that, they noted that the current situation has increased a sense of fear and insecurity, while it decreased a sense of belonging and livability. Several Lebanese interviewees pointed out that they are willing to move out of Karantina once it is possible for them, while others stated that they need to stay alert and keep their neighborhood safe.

Another scenario of increasing vulnerability is presented by residents with old rental contracts. Until 2014, residents under rent control were protected by law. However, the lifting of the rent control at the time placed residents in vulnerable conditions.<sup>21</sup> While the law included provisions for a transition, public authorities failed to set it in place, leaving tenants and landlords to contest entitlement in courts. The current legal provision passed in September 2020 to freeze eviction for a year may help the tenants.<sup>22</sup> In practice, however, several tenants face daily pressure by landlords who are delaying or rejecting repair in an attempt to push them away. During interviews, these tenants explained that landlords are using numerous methods to displace them, such as neglecting the buildings' infrastructure, blocking water irrigation systems, and neglecting the building's aesthetic qualities. The purpose is to displace them so they can replace them with tenants signing new rental contracts.

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<sup>16</sup> For more information, check: <https://legal-agenda.com/قانون-الحماية-المناطق-المتضررة-بنتيجة/>

<sup>17</sup> Information collected through NGO volunteers with Offre Joie.

<sup>18</sup> Old renters are tenants who rented under the rent control law. For more, see Public Works (2016). Mapping Beirut Through its Tenants' Stories. Public Works. <https://publicworksstudio.com/en/projects/mapping-beirut-through-its-tenants-stories>

<sup>19</sup> A similar study showing the modality of such markets and their development can be found in: Fawaz, M., Saghieh, N. and Nammour, K. (2014) "Housing, Land and Property, Critical Issues in the Current Syrian Refugee Crisis", co-published by UNHCR and UN-Habitat.

<sup>20</sup> Some community members identify and refer to them as "ghourabah" meaning "stranger" or "outsider" in Arabic. They are perceived as such in their "territory."

## 05. Socio-Economic Population Profile

Karantina has historically attracted various vulnerable population groups (Lteif, 2020). Today, residents are typically classified as Lebanese-Armenians, Arab el-Maslakh (Lebanese Sunni Muslim), Lebanese Christian families (mainly Maronites and Catholics), in addition to Syrian and Iraqi refugees (UNHCR, 2020).

According to the interviews with residents and neighborhood actors, Syrian refugees are concentrated in Al-Khodor sub-neighborhood while Lebanese Christians and a very small number of Armenians are concentrated in Al-Saydeh sub-neighborhood. A report by ACTED estimated that there are 4,638 inhabitants in all of Karantina (Acaps, 2020). However, based on preliminary findings by the BUL research team as well as interviews with community members and the mukhtar between August and October 2020, the total population was estimated to be around 2,500.<sup>23</sup>



ACTED: 4,638 inhabitants in all Karantina.

BUL (preliminary findings): 2,500 inhabitants between August and October

**According to the survey of all population conducted by BUL in Fall 2020, the following population groups were noted in Karantina:**

- 01** Karantina is still dense with Syrian refugees. An interview with a Syrian refugee in Al-Khodor neighborhood estimated that there are approximately 120 Syrian families in Karantina. However, field visits and interviews revealed that the number might have increased after the blast. If BUL assumes that the average household consists of five individuals, this averages to roughly 600 Syrian individuals in Karantina.
- 02** As for Lebanese families, informal conversations with key community members in Al-Khodor neighborhood estimated that there are 179 Lebanese families present. Meanwhile, an Armenian community member from Al-Saydeh neighborhood and former partisan of the Lebanese Forces political party mentioned that there are 200 Lebanese families living in his neighborhood. These numbers were retrieved from the voting lists by the political parties (Future Movement and Lebanese Forces). If BUL assumes that the average household consists of five individuals, this averages to 1,895 Lebanese individuals in Karantina.
- 03** Migrant workers, mostly Ethiopian, also reside in Karantina but their number is more limited. Interviews conducted by the BUL urban recovery team working on Karantina mentioned that there are around 15-20 migrant worker residents who live primarily in Al-Saydeh neighborhood.

<sup>21</sup> For more on rent control, see See Public Works Studio (2016). Mapping Beirut Through its Tenants' Stories. Public Works. <https://publicworksstudio.com/en/projects/mapping-beirut-through-its-tenants-stories>. For residential vulnerability in Karantina, see Star, N. (n.d.). Ruined homes and eviction notices in Beirut's Karantina. The Daily Star. <http://www.dailystar.com.lb/News/Lebanon-News/2020/Sep-11/511542-ruined-homes-and-eviction-notice-in-beirut-karantina.ashx>

<sup>22</sup> Law 194 was passed in September 2020 to organize the post-disaster recovery and included a one-year protection. For more, see [www.legalagenda.com](http://www.legalagenda.com)

<sup>23</sup> BUL's recovery team is still undergoing fieldwork and research and have not published their findings yet.

## 06. Housing Conditions

### A. QUALITY AND CONDITION OF THE HOUSING STOCK

Assessing Karantina revealed a diversity of building typologies. Central hall houses and modern apartment buildings are mainly the typologies found. Most apartment buildings range between one to three floors, and few range between four to seven (Figures 12 and 13), and the area doesn't have residential tower buildings like nearby Mar Mikhael.

Nevertheless, the quality of buildings in Karantina is generally flimsy, reflecting the poverty of the population. Before the blast, most buildings' structure had signs of deterioration reflecting poor maintenance and neglect. Floors, roofs, internal and external walls needed maintenance either through total rebuilding or substantial repair (UN-habitat, 2012).

Several interviews showed that before the blast, houses suffered from humidity and water leakages. These conditions were considerably worsened by the impacts of the August 4 blast. Now, most of the old buildings stand structurally damaged, with internal and external walls and ceilings affected.<sup>24</sup>

The poor conditions of the residential houses are not a surprise since most residential buildings date back to the 40s and 50s (Figure 14), and maintenance of building conditions was not an option for the low-income inhabitants who are mostly renters.



**Figure 12.** New buildings constructed in Karantina.  
Source: Abir Cheaitli, 2020.

At the beginning of the reconstruction processes after the blast, a new layer of distinction between the sub-neighborhoods (Al-Saydeh and Al-Khodor) was added due to the quality of building upgrades. Living conditions were either upgraded or downgraded according to the reconstruction processes. Al-Saydeh was being built in a consolidated housing typology; the exterior and interior structures and materials are durable and of solid quality. While in Al-Khodor sub-neighborhood, which hosts more vulnerable groups, reconstruction was slower, more ad-hoc, and frailer. In-between, around Senegal Street (Figure 5), a pattern of self-repair and private actors' funds were visible.

However, as of December 2020, many housing facilities on Al-Khodor and Senegal are being re-worked and repaired by the Norwegian Refugee Council (NRC) and the United Nations Development Programme (UNDP), who are repeating poor work already done by other NGOs. The NRC and UNDP began physically rehabilitating homes roughly three months after the blast as they were doing a very detailed assessment of the damages.

<sup>24</sup> OEA Survey.





Figure 13. Number of floors per building in Karantina. Source: The Beirut Urban Lab, 2020.

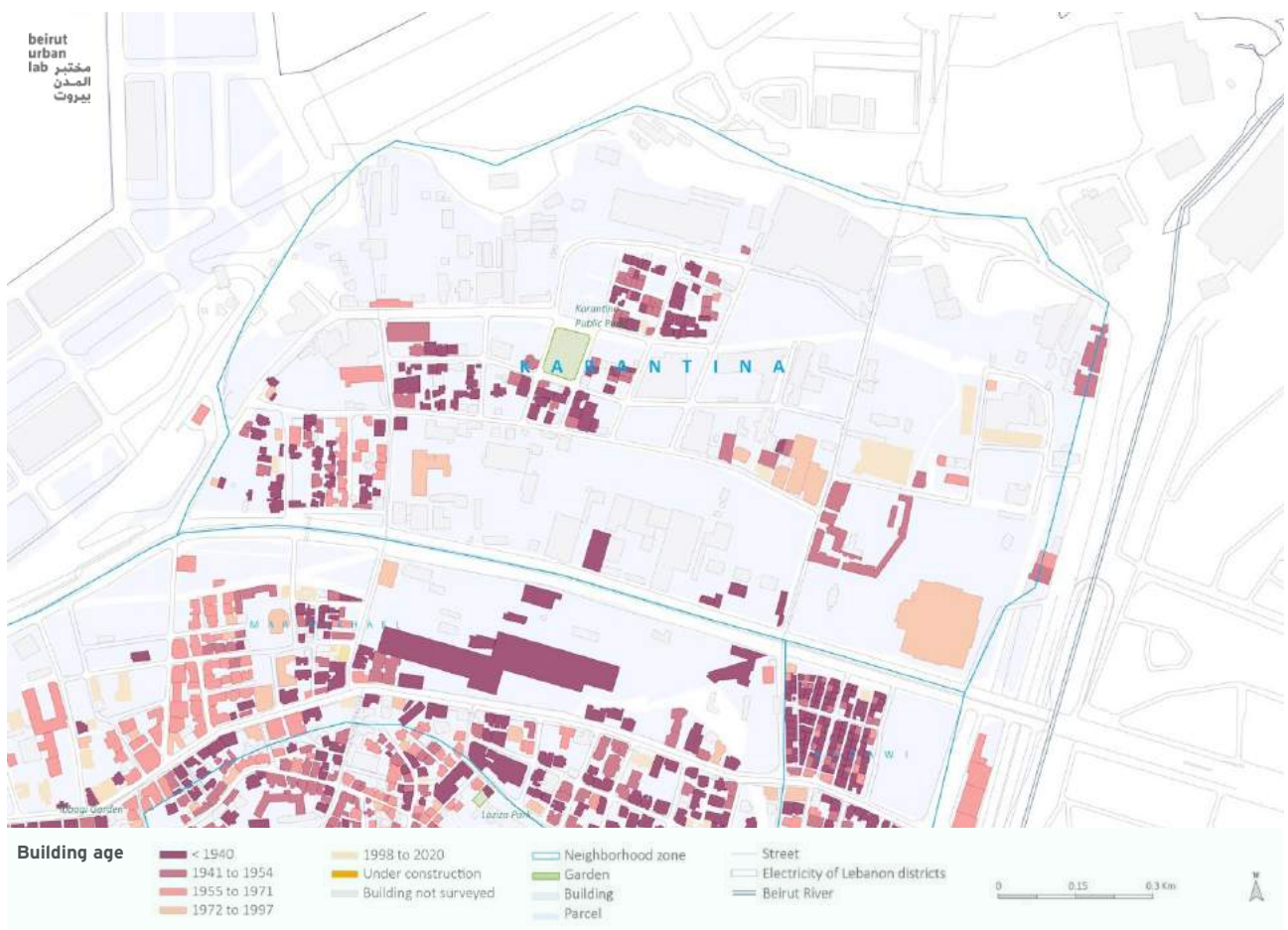


Figure 14. Building age in Karantina. Source: The Beirut Urban Lab, 2020.

## B. TENANCY ARRANGEMENTS

Interviews conducted by BUL recovery team with approximately 60 residents in Karantina between August and November 2020 indicated that access to housing was commonly happening through rentals. These interviews showed the following types of rental arrangements:

- 01 Old rental contracts held by Lebanese families, particularly in the sub-neighborhood of Al-Saydeh, are inhabited mostly by elderly residents;
- 02 New rental contracts;
- 03 Informal temporary agreements typically govern access to housing for Syrian refugees and Ethiopian migrant workers in a compacted crowded condition.

The interviews also showed that there are still old rental contracts in the neighborhood, but new contracts are more frequent. Old tenants' monthly payments range between 500,000 LBP to 1,500,000 LBP per year. Households are typically constituted of nuclear families. However, refugees whose financial means are limited sometimes share the same apartment as mentioned above.

Interviews with residents as well as a review of about 10 property titles from Karantina revealed the multiplicity of ownership as a common pattern in this area. This is an important challenge as many apartments are held in shares by numerous stakeholders, typically multiple heirs. This often entangles building development and/or replacement with conflict among multiple heirs. More generally, land sales are slow in the area with land and apartment prices varying considerably from one area to another: between Al-Saydeh, Al-Khodor, and the Senegal Street stretch.<sup>25</sup>

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## C. HOUSING MARKET CONDITIONS

Karantina does not have an active market of housing and/or property units. Since 1998, very few buildings were constructed. Figure 15 shows that only three construction permits were filed between 1996 till 2018.<sup>26</sup> It is expected that the post-blast classification of buildings undertaken by the Directorate General of Antiquities (DGA) in August and September 2020 will increase restrictions on selling property or developing new buildings. Nonetheless, the area is desirable for developers given the area's strategic location.

To date, property speculation remains limited in the area. The BUL survey showed low vacancy rates: no vacant apartments were detected in the neighborhood, in strong contrast with other areas.<sup>27</sup> On the contrary, overcrowding was observed in several housing units with a large number of occupants/rooms. Another indicator of the slow housing market is the low number of publicly subsidized loans that the BUL allocated in the neighborhood.<sup>28</sup> Only five apartments in three buildings in Al-Saydeh have benefited from the subsidized public loan of the Public Corporation for Housing (PCH) in this neighborhood (Figure 16) since 1997, indicating that few housing transactions are actually occurring on the ownership level.

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25 A resident from Al-Saydeh owns an apartment in a lot that holds two buildings, and the two buildings are owned by 12 individuals related to one family. Each building consists of three apartments. He mentioned that before the blast, there was a plan to sell the lot for 12,000 USD per m<sup>2</sup> and regretted that the contract was canceled after the blast. The buyers changed their mind. Meanwhile, an interview with a resident from Al-Khodor neighborhood mentioned that his parents own an apartment in a three-story building, and the other two floors are owned by his uncles. One month after the blast, a land purchaser offered to buy the parcel for 3,000 USD per m<sup>2</sup>, but the owners refused because they were unwilling to sell at what they deemed a low price.

26 Data about building permits was obtained by The Beirut Urban Lab from the Order of Engineers and Architects in Lebanon in 2019 and all data points were surveyed to double-check their validity. Please check the Methodology section in the beginning of this report or visit the BBED website for the detailed methodology used to collect and analyze the data.

27 Measured by the 2018 BBED survey for all constructions after 1996.

28 Estimate based on the BBED mapping of the publicly subsidized loans of the PCH, Beirut Urban Lab records.



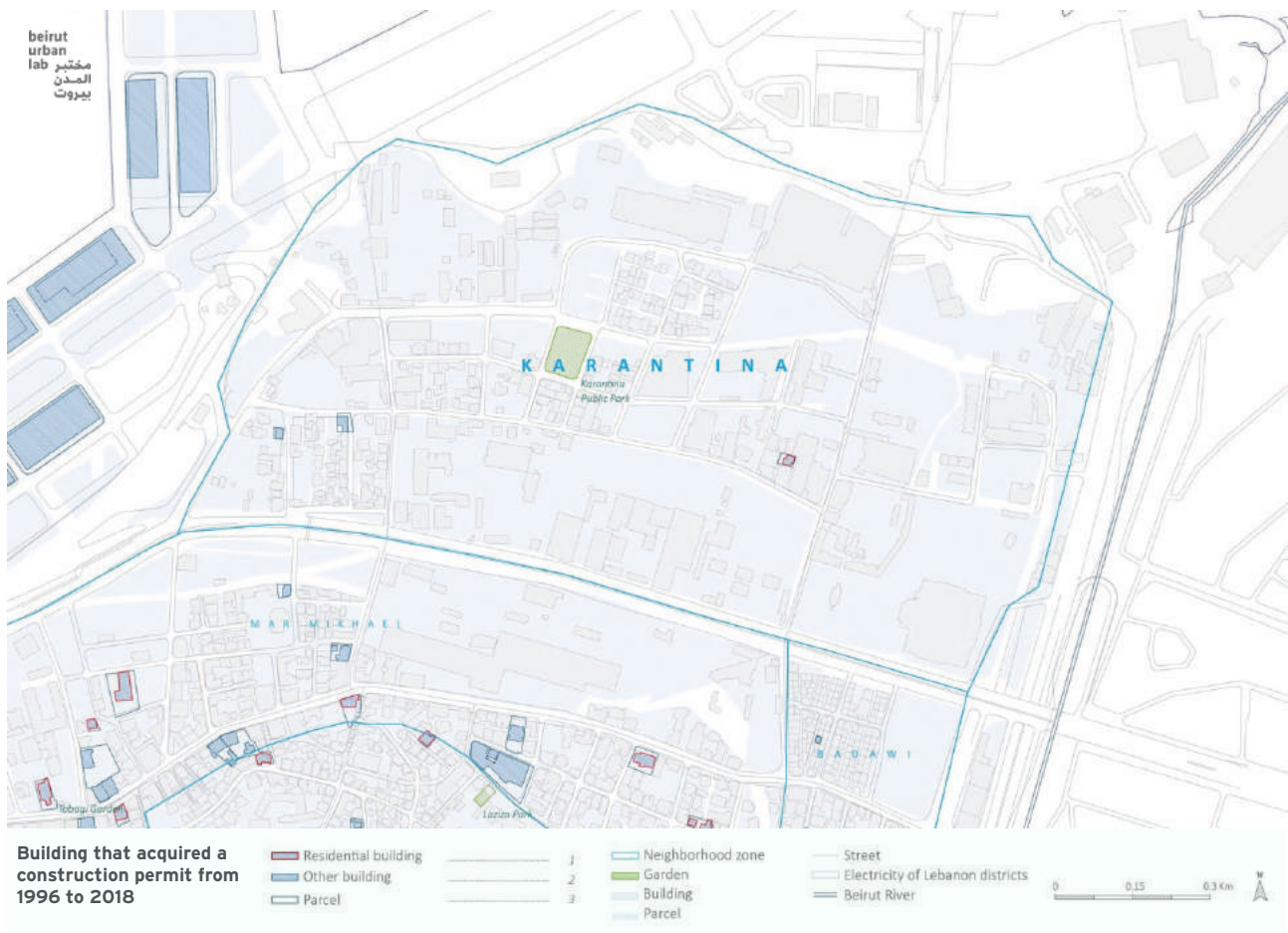


Figure 15. Construction permits issued from 1996 to 2018 in Karantina. Source: The Beirut Urban Lab, 2020.

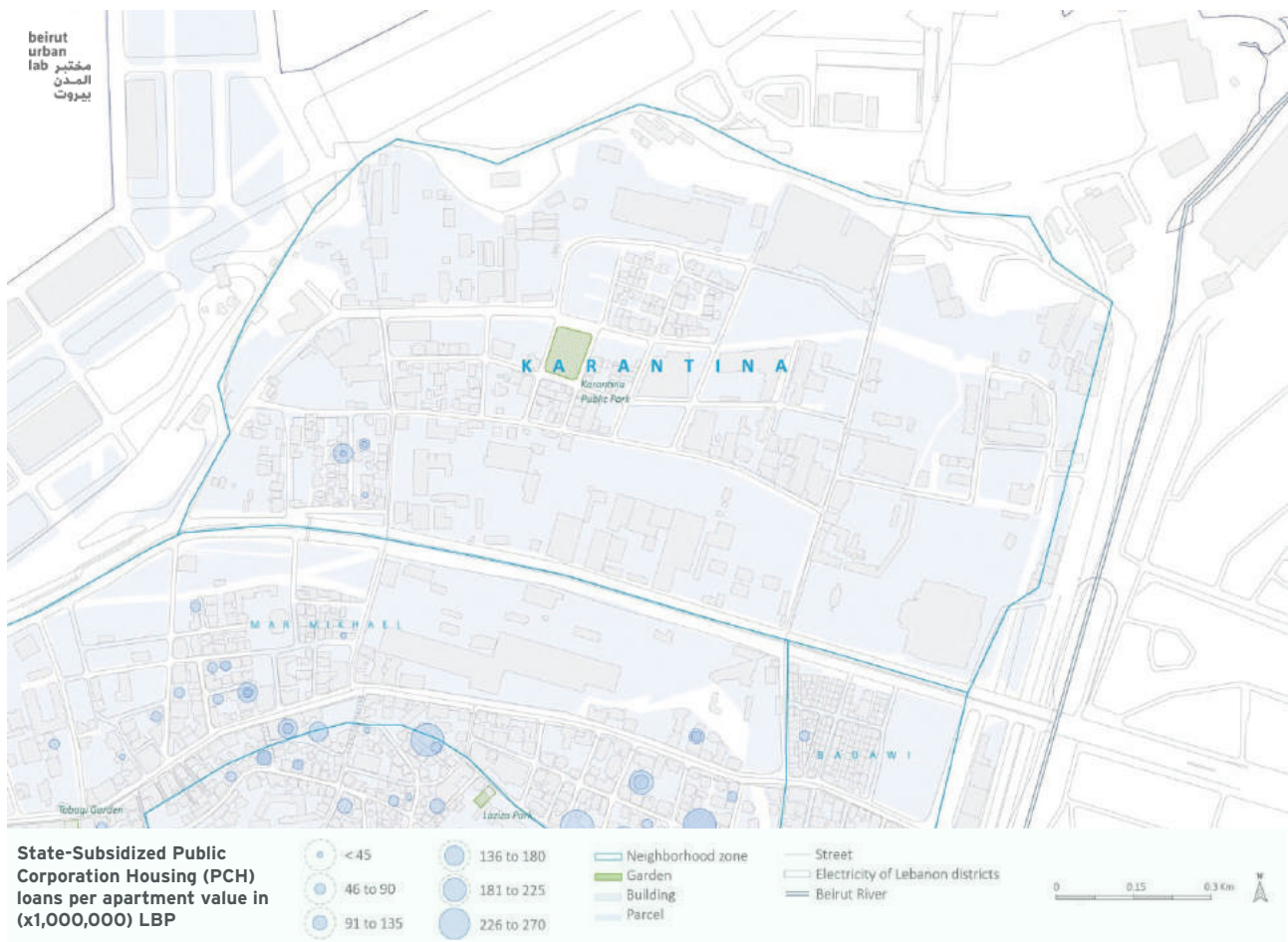


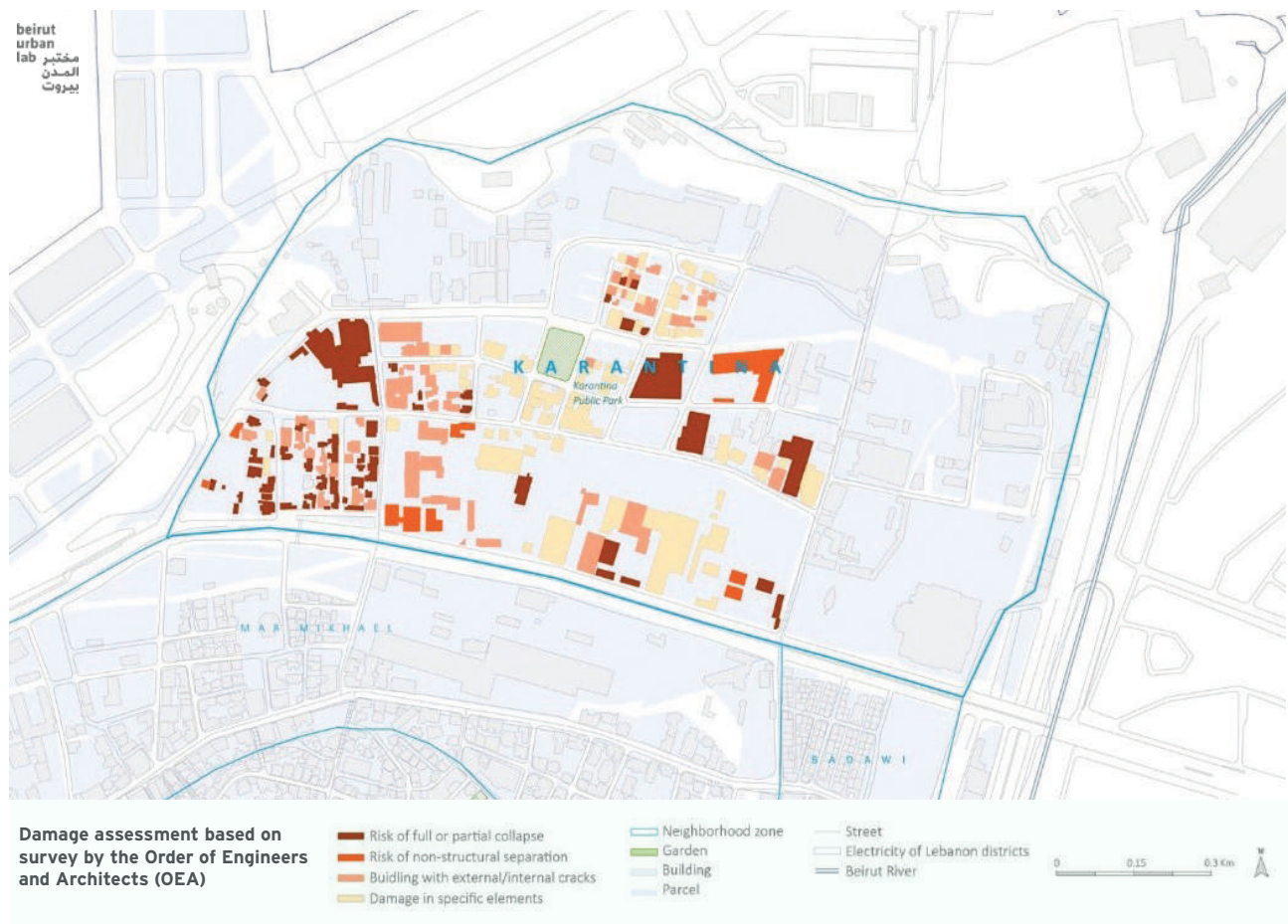
Figure 16. State-subsidized Public Corporation of Housing (PCH) loans in Karantina. Source: The Beirut Urban Lab, 2020.

## 07. Local Economy

Karantina plays a central role as a “backyard” of the city’s economy. Historically and now, the neighborhood serves as a reservoir of labor that supports the nearby port and industries.

Karantina continues to play this role, as well as housing numerous refugees and migrant workers who also conduct domestic work. Karantina also provides the land needed to serve the city. This includes the now-closed slaughterhouse and RAMCO, a waste management treatment facility, parking for the municipal vehicles, the public hospital, Beirut fire brigade, and a flour mill. As mentioned above, the relatively lower price of land has also rendered it desirable for some of the cultural industries and emerging economy that spilled over to Karantina from the Mar Mikhael neighborhood (Figure 17).

Nevertheless, developments in the economy characterized patterns of Karantina did not modify the social status in this community. Karantina’s waves of refugees stigmatized the area as a low-income working-class neighborhood that provides cheap labor to local industries. The interviews conducted in the neighborhood revealed that many residents work in unskilled jobs such as taxi drivers, valet parking attendants, or delivery drivers. Many among them worked in the nearby slaughterhouse, which was closed down in 2014 due to severe health threats posed by the minimal health and hygiene conditions.<sup>29</sup> It is worth remembering that unskilled workers suffer disproportionately from the ongoing financial crisis.



**Figure 17:** Damage assessment in Karantina based on survey by the Order of Engineers and Architects. Source: The Beirut Urban Lab, 2020.

<sup>29</sup> See “The disaster that is the Karantina slaughterhouse”, <https://ecocentra.wordpress.com/2015/01/21/the-disaster-that-is-the-karantina-slaughterhouse/>



## 08. Public Spaces

Unless specified otherwise, all information in this section is based on direct observations in fieldwork conducted in Fall 2020.

### A Municipal Park

Property records indicate that the Karantina park was created in 1956 through the expropriation of a private lot and earmarked as a public park for the community (Figure 18). The Park is strategically located in the middle of the neighborhood. It was rehabilitated in December 2016 after the municipality approached landscapers “Greener on the other side” in 2011. Two landscape architects Zeina Kronfol and Pamela Haydamous redesigned the old Karantina public garden into a place of encounter, and simply named it ‘Karantina play garden’. Greener on the other side also teamed up with “Tandemworks” to launch an open call for artist to develop conceptual proposals for a playful and interactive installation. The winners of the design development and execution of the play items under the bridge were “CatalyticAction”.

CatalyticAction also organized community engagement workshops in collaboration with “The Chain Effect”, “Recycle Lebanon” and “Urban Pins” (Figure 19). A resident mentioned that each Sunday, the priest of Al-Saydeh Church invites children from both neighborhoods to the Karantina garden, to gather, play, and participate in activities. But according to interviews, some Lebanese families avoid sending their kids to play when they know there are Syrian children at the park.

The Park has been closed due to the COVID-19 pandemic. The municipality took this decision because many children had been gathering in the park after school closures, exacerbating the risk of contamination during the pandemic.



Figure 18: Open spaces in Karantina. Source: The Beirut Urban Lab, 2020.







**Figure 20.** Quality of public spaces (streets and sidewalks).  
Source: Abir Cheaitli, 2020.



**Figure 21.** Communal Spaces by Residents.  
Source: Abir Cheaitli, 2020.



**Figure 22.** Interview with a resident in Karantina.  
Source: Abir Cheaitli, 2020.



## 09. Infrastructure and Environment

### Water

On average, almost all household dwellings in Karantina have access to basic sanitary facilities and the area does not suffer from daily shortage of water. Interviews with residents confirmed earlier findings by the BUL research that showed the location of the neighborhood in the city in relation to public networks such as water and electricity. They indicated that water comes almost daily in pipes reaching their houses, and residents do not need to purchase water. They pay a yearly fee of 350,000 LBP to the municipality. In the Medawar region, sewerage and road infrastructures are present but need maintenance (UN-habitat, 2012). Residents from Al-Khodor mentioned that during the winter, the neighborhood is commonly flooded with wastewater. As for electricity, daily power cuts were as common as in any other city in Lebanon. However, as of December 2020, the neighborhood had been receiving continuous service till the time of writing this report.

### Waste Management

In line with the rest of the city, waste management in Karantina is performed by RAMCO company, which is responsible for garbage collection and street cleaning. Sidewalks and streets are partially clean, and residents mentioned that every three days a group of employees wearing RAMCO uniforms come to sweep the streets and collect the garbage, which was indeed observed during fieldwork (Figure 23).

After the blast, local NGO Arcenciel facilitated the collection of all the broken glass from the blast, which has been collected in a vacant lot owned by the Municipality of Beirut in Karantina. The glass is now being relocated to another lot owned by the Port of Beirut, in coordination with the city's governor. As of November 2020, Arcenciel was awaiting the delivery of a glass crusher which will facilitate recycling and reusing the glass.

### Public Transport

The area is not connected to the rest of Beirut through the public transportation system; even informal transportation systems do not go inside the neighborhood. These services pass along the Charles Helou highway which bounds Karantina from the South. Public transports pick up or drop off passengers along their routes of transport.

### Social Facilities

The area hosts the Karantina governmental hospital, but it lacks affordable medical clinics; and residents are not able to benefit from the hospital's services due to their financial situations. Additionally, there are no educational facilities such as a school or learning centers.



**Figure 23:** An employee wearing a RAMCO uniform and cleaning one of the streets in Karantina. **Figure 14b.** Waste collection bins. Source: Abir Cheaitli, 2020.

## 10. Environmental Conditions

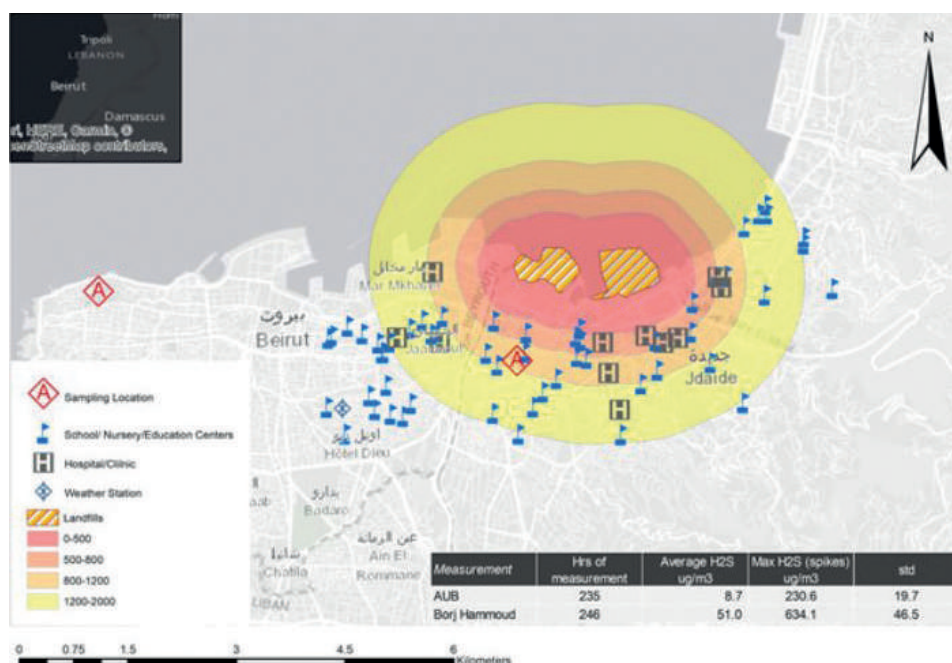
In general, the Medawar area faces severe environmental pollution related to air, noise, and odor. A study by Greenpeace International that dates back to 2004 showed that Karantina was among the most polluted neighborhoods in Beirut and the major factors were the old slaughterhouse, the port, and the solid waste management plant (Chahine, 2004). It is likely that things have improved with the slaughterhouse closed.

Another poor environmental factor is the stench generated by the Beirut River that borders Karantina to the East. The river passes across several municipalities and no public institution has taken any action to protect the river area from encroachments and pollution.

According to a 2004 study, once the water reaches the city limits of Greater Beirut, it brings sources of pollution such as industrial waste from various factories along the strip, and is then contaminated from sewage and waste from the slaughterhouses across the river (Youssef & Abou Ali, 2017). During summer, due to low water levels in the river, certain kinds of organic waste decomposes, thus intensifying the putrid smell and negatively affecting the levels of environmental air quality.

The absence of wastewater management and sewage runoff on the river surface decreases the environmental air quality of the surrounding areas (Figure 24). According to Maged Youssef and Bashir Abou Ali, altering the natural morphology of the river, removing green areas, diminishing natural spaces, and transforming it into a concrete block in 1968, created an abnormal air quality causing serious health problems (Baaklini, 2019).

Moreover, the landfill in Bourj Hammoud has major consequences on the environmental air quality of Bourj Hammoud and consequently Karantina. Hydrogen Sulfide is a dangerous gas that emanates from landfills and its heavy concentrations near Bourj Hammoud can reach 51 micrograms per cubic meter which is a relatively dangerous rate. This results in a weakened immunity and deterioration of respiratory function among residents in the surrounding area.



**Figure 24.** Map by the Center for Nature Conservation at the American University of Beirut, showing the number of schools and hospitals exposed to Hydrogen Sulfide in Bourj Hammoud-Jdiedeh. Source: L'Orient le Jour, 2019.



## II. STAKEHOLDERS IN THE NEIGHBORHOOD

Unlike most other areas of Beirut, the heavy presence of the Army in the neighborhood has rendered the presence of other actors more subdued. This includes public agencies, such as the Municipality of Beirut, publicly elected officials as the mukhtar, or others.

Political parties are also relatively subdued despite the presence of offices and popular support. Thus, walking the streets of Karantina, one does not sense the typical territorialization of other urban sectors materialized in flags, posters, or banners. Only the Kataeb party's political headquarters is seen in Al-Saydeh.

Major landowners in Karantina include the Maronite Waqf, municipal and governmental where several military zones are placed. The Maronite monasteries are considered important landowners, and key players in the area. The army is also a strong and visible actor.

### Political Actors

Two political parties have visible presence in the neighborhood, namely the Lebanese Forces and the Future Movement. Both were visible in the immediate aftermath of the blast, distributing services and cleaning streets. Each party's local jurisdiction extends over one neighborhood, as pointed above, in line with religious and sectarian affiliations. Thus, Al-Saydeh is mostly affiliated with the Lebanese Forces while Al-Khodor is mostly affiliated with the Future Movement. Al-Saydeh also counts as a local office for Kataeb. The area in between, surrounding the Senegal Street stretch, is a mixed composition that combines patterns from the two neighborhoods (religion, nationality, political affiliations).

### Religious Institutions

The religious division of the neighborhood is paralleled in institutions and religious organizations whereby one can speak of two areas: the church and the mosque. Karantina holds one church called Al-Saydeh Maronite Church, one mosque inside Karantina called Khaled Ibn al-Walid mosque, and one on its outer peripheries called Al-Khodor mosque. As mentioned before, some residential clusters and streets have been named after the religious institutions. On one hand, this indicates the religious representation of the cluster, and on the other hand, the political.

### Religious-based NGOs

The Mar Mansour Association and Mar Mikhael NGO provide necessary social, health, and educational services to Christian residents primarily, including migrant workers (Ethiopians). They provide social services such as organizing recreational activities for children and elderly, free health examinations, and low-cost medication (UN-habitat, 2012).

In Al-Khodor, interviews with community members indicated that they get support, food aid, and donations from NGOs related to the Future Movement such as Ahlak w Nasak, Beirut for Social Development, and al-Itihad al-Islami, all of which are Muslim-Sunni charitable organizations. During a field visit in Al-Khodor neighborhood, a group of men wearing Al-Itihad Al-Islami slogan, were distributing t-shirts holding Al-Itihad Al-Islami slogan, candies, and chocolates to children.



**Figure 25.** The previous tent for the Borderless NGO before moving to their new headquarters. Source: Abir Cheaitli, 2020.

## NGOs establishing headquarters after the blast

In Zone 7, there has been enforcement on providing psycho-social support for kids and women affected by the port blast. Tents for the Borderless and International Doctor Corps NGOs are also located in Zone 7, Al-Khodor sub-neighborhood (Figure 25). An interview with an active member from Borderless mentioned that they started with the intention to repair 16 houses, but after realizing the number of children in Karantina, they changed their strategy from fixing homes to providing psycho-social support and organizing activities. The NGO reached out to 300 children (60% Syrian and 40% Lebanese). Borderless started with a temporary plan to stay in Karantina, but after recognizing the urgent need for the foundation's services in the area, they decided to stay permanently. With the help of an anonymous donor, the NGO got funds to rent an apartment with a three-year contract, and the apartment is being renovated to function as a community center. The UNDP also recently opened a headquarter in Al-Khodor neighborhood as well as Médecins du Monde on Senegal street.

## Landowners

The neighborhood has one operating community space owned by the Municipality of Beirut, the Karantina public park. The municipality also owns a significant number of lots that include facilities such as the Karantina governmental hospital, previous Sukleen and Sukomi, and military bases. The Maronite Waqf owns a fair number of properties.

Some properties have buildings inhabited by residents with old rent contracts, and other properties that are vacant/abandoned. Meanwhile, lots that hold private developments and industries did not show a pattern of domination by singular shareholders as typically seen in nearby neighborhoods.

# III. RECOVERY STATUS

## 1. Overview of the Damage Assessment in Karantina

Damage from the blast was equally visible in all three zones (Figure 26). Nevertheless, the rebuilding work appeared to be unevenly distributed between the different zones initially. This was confirmed by fieldwork and qualitative interviews with Karantina residents from both communities: Al-Saydeh, Al-Khodor, and the areas in between. Some streets were full of volunteers and NGOs working intensely on repairing homes, while other streets appeared empty.

Narratives collected among residents indicated that numerous NGOs came to the area immediately after the blast. Some offered fast emergency repairs (windows and doors), and their names were largely forgotten by the residents. The Lebanese Army was among the remembered organizations who distributed food aid, undertook damage assessment, and provided 400,000 LBP compensation for urgent repairs to all the residents. Other NGO names such as Offre Joie were remembered vividly due to the high quality of their work. Offre Joie, Association for Collaboration Unified Aids (ACUA) (Zone 8), Ahlak w Nasak, and Loyac (Zone 7) immediately began reconstruction processes in Karantina per zone divisions. Others formed partnerships, including the NRC and UNDP, who joined the reconstruction processes at a later stage (Figure 26).

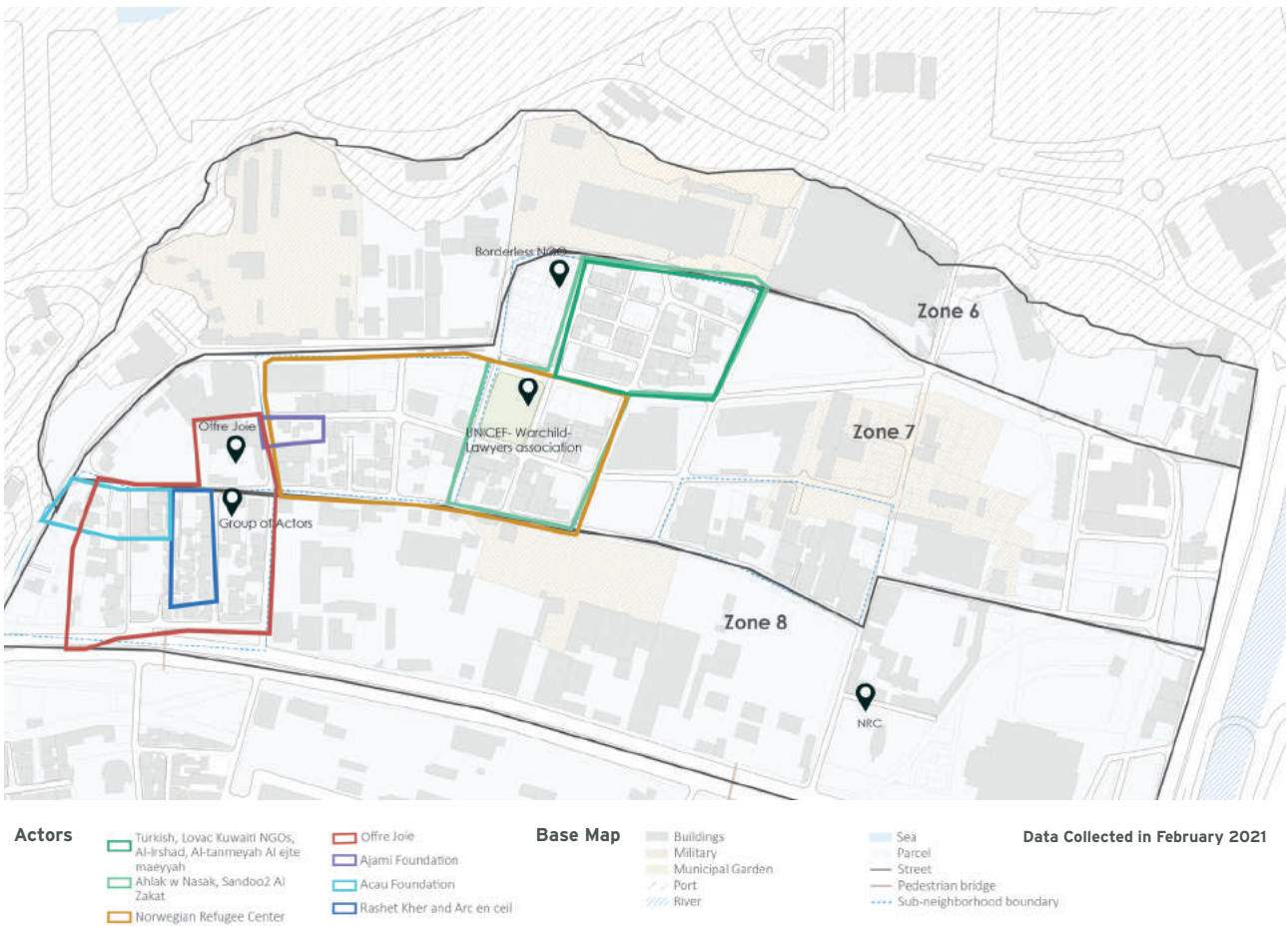


Figure 26: Presence of the actors in Karantina in November 2020. Source: Beirut Urban Lab's Karantina urban recovery team, 2020.

## 2. Overview of Actors Involved in the Recovery Response

In Zone 7, the area where Al-Khodor cluster is located, the reconstruction works were observed as minimal as emergency interventions at the beginning. The scope of work covered by NGOs on this zone mainly included replacing broken windows and doors and painting interior walls. Still, the homes' quality conditions needed a more consolidated reconstruction process. Many houses suffered from water leakages. Residents pointed to cracked walls and ceilings, as well as the poor quality of the repair works performed. Interviews showed a high level of disappointment. However, as mentioned previously, a more comprehensive reconstruction and restoration processes of damaged houses began as of November 2020 in this cluster and the Senegal cluster by the NRC and UNDP. According to an interview with an emergency response project manager at NRC, the NGO arrived to Karantina immediately after the blast, and started with the physical reconstruction phase in November. In addition to the physical reconstruction, the NGO provides educational and health services, a cash-for-rent modality, and legal protection through a platform known as "Information, Counseling and Legal Assistance" (ICLA).

In Zone 8, especially in Al-Saydeh sub-neighborhood, NGOs responsible for renovation have conducted solid work starting immediately after the port blast. Offre Joie is renovating 34 buildings in Al-Saydeh, in addition to the renovation of Al-Saydeh Church. Interviews with residents revealed their satisfaction towards the services offered by Offre Joie. The scope of work included the exterior and the interior parts of each house: structural enhancement, wall restorations, tiling, painting, sanitary fixtures, and electrical reparations.

Another NGO repairing homes in Zone 8, also in Al-Saydeh is ACUA. The scope of work for this NGO is also considered by residents at the same level of professionalism as Offre Joie. The NGO started work instantly after the blast and is renovating four buildings. An interview with the project manager responsible for reconstruction processes showed his interest in implementing Lebanese heritage architectural features on the interior and exterior facades. When asked if any level of coordination is happening between ACUA and Offre Joie, he said that each NGO is working alone.

### Beyond Physical Repair

A team of researchers from the BUL at the American University of Beirut, led by Professor Howayda Al-Harithy, is adopting a bottom-up participatory approach to propose a people-centered, long-term recovery framework. The BUL's objective is to promote a recovery agenda through the empowerment of local residents, identifying transversal issues, and developing a strategic framework for recovery of the neighborhood. The team is partnering with UNDP to set in place a long-term process through which it can guide physical, social and economic recovery.



### 3. Overview of Modalities of Aid, including Repair & Reconstruction

Five modalities of intervention that combine private and public actors have been identified in Karantina:

#### Modality 1 Humanitarian and Immediate Emergency Aid

Humanitarian relief was among the first forms of intervention. Food provision, psychosocial support, medical and health care were services provided instantly after the port blast for all residents of Karantina. Today, some of these services continue from Borderless, International Medical Corps, and Médecins Du Monde.

#### Modality 2 Short Term Building Repairs

Numerous NGOs, volunteers, private donors, and institutions offered short-term emergency repairs to people after the blast. The purpose of these quick repairs was to alleviate residents' displacement. Some windows and doors were covered with plastic sheets, while other repairs showed more solid forms by replacing broken windows and doors with new ones.

#### Modality 3 Zone Recovery Interventions

As mentioned previously, Offre Joie is conducting reconstruction in Zone 8/Al-Saydeh sub-neighborhood, and as of December 2020, they were almost done with repairs. Other NGOs are working on segments of Zone 7 and 8, such as the NRC and UNDP who started at a later stage.

#### Modality 4 Long-Term Recovery Interventions

In partnership with UNDP, the BUL is working on a neighborhood scale. As mentioned previously, BUL is adopting a multi-disciplinary approach to propose a community-led, long-term physical, social, political, legal, and economic recovery.

#### Modality 5 Small-scale Punctual Intervention

Small-scale punctual interventions on publicly owned or abandoned lots are being implemented, and other sites are being studied for small interventions as well. Currently, UNICEF is partnering with the charity CatalyticAction to rehabilitate Karantina's public park. The Rashet Kheir NGO rehabilitated a wall stretch in Al-Saydeh. Ten local artists were recruited by the NGO to paint the wall with the participation of residents, particularly children (Figure 27). In addition, the BUL recovery team is willing to implement three small scale tactical community interventions to activate public spaces that are currently used as gathering spaces but need enhancements.

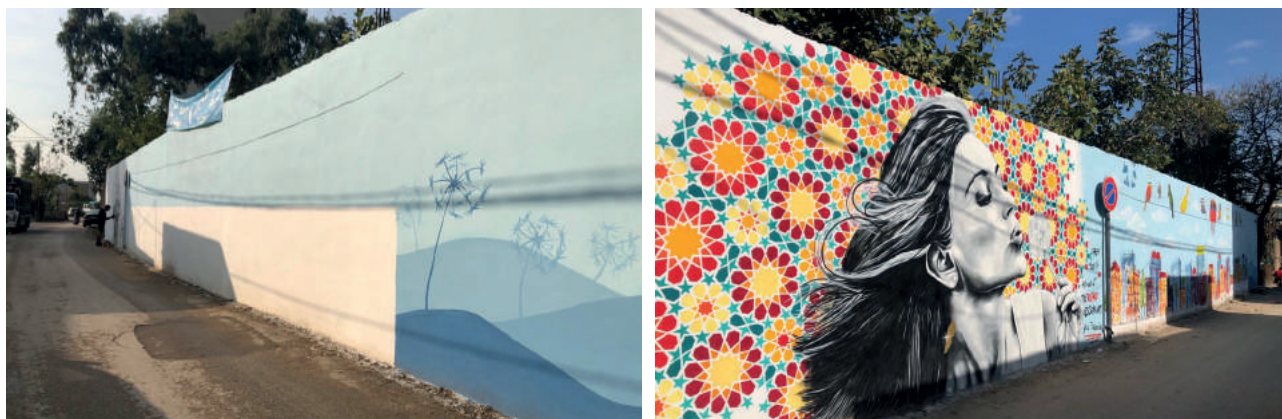


Figure 27. The wall before and after it was painted by Lebanese artists and locals in collaboration with Rashet Kheir. Source: Abir Cheaitli, 2020.

# IV. IDENTIFIED TRANSVERSAL ISSUES

Five transversal issues were identified in the descriptive memory report. These issues are diagnosed and studied in-depth in the strategic diagnosis step. The five issues are:



## I. Affordable Housing and Social Inclusion

Due to the evictions and disruptive actions by landlords after the blast, there is a threat of losing the social diversity and the housing affordability in the neighborhood.



## II. Spatial, Economic and Social Connectivity

The multi-layered social, physical, and spatial divide/segregation is isolating the area from the rest of the city yet has safeguarded the neighborhood from development.



## III. Cultural and Economic Vitality of Karantina

Karantina has experienced a threatened economic activity after the blast. The area hosts businesses that are directly connected to the port, and active industries whose activity and/or presence was impacted by the blast.



## IV. Inclusive and Sustainable Development

Karantina has suffered restricted access to development by local landlords due to militarization, planning regulations, and suspended projects (LINOR) since the civil war.



## V. Quality of the Urban Environment

A degraded, intimidating, and unwelcoming urban environment due to the presence of the military, garbage dumps, and unregulated industries, and underserved public and shared spaces.

# LIST OF REFERENCES

Acaps. (2020, August 12). Emergency Operations Centre Beirut Assessment & Analysis Cell. [https://reliefweb.int/sites/reliefweb.int/files/resources/20200812\\_acaps\\_secondary\\_data\\_review\\_beirut\\_explosion\\_0.pdf](https://reliefweb.int/sites/reliefweb.int/files/resources/20200812_acaps_secondary_data_review_beirut_explosion_0.pdf)

ARIJ. (2013, June 6). Karantina's Displaced: From Palaces to Basements. <https://en.arij.net/investigation/karantinas-displaced-from-palaces-to-basements/>

Baaklini, S. (2019, June 13). Beirut stinks: When will the root of the problem be tackled? L'Orient Le Jour. <https://today.lorientlejour.com/article/1174582/beirut-stinks-when-will-the-root-of-the-problem-be-tackled>

Battah, H. (2016, Jan 20). Remembering Karantina... who does? Beirut Report. <http://www.beirutreport.com/2016/01/remembering-karantina-who-does.html>

Chahine, J. (2004, November 2). Beirut River retains 'honor' of being among most polluted. The Daily Star. <http://www.dailystar.com.lb/ArticlePrint.aspx?id=3839>

Fawaz, M., Harb, M., & Gharbieh, A. (2012). Living Beirut's security zones: An investigation of the modalities and practice of urban security. *City & Society*, 24(2), 173-195.

Fawaz, M., & Peillen, I. (2003). *The Case of Beirut, Lebanon. Understanding Slums: Case studies for the global report on human settlements*. UN-HABITAT. London: University College London.

Kassir, S. (2003). *Histoire de Beyrouth*. Paris: Fayard.

Lteif, D. (2020, August 17). Change for Beirut must start in the oppressed neighborhood of Karantina. Toronto Star. <https://www.thestar.com/opinion/contributors/2020/08/17/change-for-beirut-must-start-in-the-oppressed-neighbourhood-of-karantina.html>

Massabni, M (1977) 'Contradictions Urbaines et Guerre Civile : La Destruction de la Quarantaine à Beyrouth' In: International Journal of Urban and Regional Research 1(1), Edward Arnold, 132-144.

Stoughton, I. (2019, May 09). The SoHo of Beirut: Why Karantina is now attracting designers, artists and DJs. The National. <https://www.thenationalnews.com/arts-culture/the-soho-of-beirut-why-karantina-is-now-attracting-designers-artists-and-djs-1.858540>

Take, O. A. (1974). Urban dwelling environments: Beirut, Lebanon; case studies: Mkalles Housing Project (24904091) [Doctoral dissertation, Massachusetts Institute of Technology]. <http://hdl.handle.net/1721.1/78396>.

UNHCR. (2020, September 30). Operational Portal: Refugee Situations. <https://data2.unhcr.org/en/situations/syria/location/83>

UN-habitat. (2012, July 12). Rapid Profiling of Seven Poor Neighborhoods in Beirut City. <https://unhabitat.org/sites/default/files/download-manager-files/Rapid%20Profiling%20final.pdf>

Yin R.K. (2014). Case-Study Research: Design and Methods. London: Sage.

Youssef, M and Abou Ali, B. (2017). Revival of Forgotten Rivers Through Recreating the Cultural Promenade: A Case Study of the Revival of Beirut River, Lebanon. WIT Transactions on Ecology and the Environment, 226, 725-737. 10.2495/SDP170631





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