BEIRUT URBAN LAB - SEPTEMBER 2023

AN URBAN RECOVERY STRATEGY FOR POST-BLAST KARANTINA

MONITORING AND INDICATOR SYSTEMS

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*
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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, Watfa El-Chehade, Carmen Jabboury, Danielle Khadra, Michelle Khadra, George Tatarian

Editor:
Abir El-Tayeb

AMERICAN UNIVERSITY OF BEIRUT

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beirut urban lab مختبر المدن بيروت

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MONITORITNG AND INDICATOR SYSTEMS

The monitoring and indicator systems are the fifth and last component of the urban recovery strategy of Karantina. The purpose of these systems is to observe the overall progress of urban recovery in Karantina and assess alignment with the strategic framework and the vision crafted with the local communities. This report is structured in three main sections. The first section identifies the neighborhood performance indicators. These indicators are formulated against the objectives set in the strategic framework in Report 03. They assess the urban transformation of the neighborhood of Karantina toward the defined recovery objectives and the community vision. In the second section, another set of indicators is developed based on the proposed action plans in Report 04. Finally, to ensure that Karantina is not evaluated in isolation from its urban context, the third section adds indicators that assess its alignment with the larger context of Beirut.

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1. INTRODUCTION

The monitoring and indicator systems are the fifth and last component of the urban recovery strategy for the neighborhood of Karantina in Beirut, one of the neighborhoods that were heavily impacted by the Beirut Port blast on August 4, 2020. The purpose of these systems is to observe the overall progress of urban recovery in Karantina and assess alignment with the strategic framework and the vision crafted with the local communities. In doing so, they aim to monitor the implementation of the action plans formulated in Report 04 and propose modifications to the strategic framework that accommodates changing factors on the ground. However, the success of the implementation and monitoring process is contingent on the presence of a custodian of the urban recovery strategy.

Urban recovery strategies are not part of government planning or response frameworks in Lebanon and Beirut. And post-blast relief efforts by non-government organizations in Karantina were limited to short-term humanitarian aid and repair of damages without a holistic long-term strategy. Therefore, to ensure the sustainable implementation of the urban recovery strategy of Karantina by the Beirut Urban Lab, there is a need for custodianship. In line with the participatory approach adopted in the urban recovery strategy of Karantina, this report proposes a collaborative model that includes four groups of stakeholders: (1) local communities, (2) public agencies, institutions, and municipalities, (3) donors and funding agencies, and (4) experts from academic and research units. This model is not top-heavy or bottom-up but inclusive of the different stakeholders involved in the urban recovery process.

For this purpose, the urban recovery team at the Beirut Urban Lab (BUL) worked to establish a consortium that included representatives of each group of stakeholders. They would serve as the custodians of the strategic framework of Karantina. Toward that end, the team at the BUL contacted all possible actors and donor agencies. Starting with the local communities, the team held a town hall meeting on 29 September 2022 with the residents and businesses owners to collect their feedback and validate the work that was done. The action plans were presented and prioritized according to the needs of the residents and business owners. As per the tasks delegated for the neighborhood committee in Action Plan 04, the committee represented the local communities in the consortium, particularly the citizen scientists who were involved in the project. During the process of presenting and discussing action plans for implementation, the team identified the most active agencies involved in long-term work in Karantina and met with them. These included UN-Habitat, UNDP, and UNOPS. During these meetings held between January and April 2023, the BUL delegated action plans to donor agencies according to their interests and areas of expertise. UNOPS agreed to become part of the consortium. Throughout the process of designing the strategic framework, the BUL was working closely with the Municipality of Beirut represented by Jihad Bikai. The BUL also met with the Governor and Mayor of Beirut and presented the study to form the collaborative consortium. The meetings resulted in the adoption of the strategic framework by the municipal council. The BUL represented the academic and research component of the collaborative network. A memorandum of agreement was signed between the involved stakeholders to guide the work of the consortium. The consortium is mandated to re-write the action plans, secure funds for the implementation of projects, sign memorandums of understanding with relevant actors, and to oversee the overall implementation. Moreover, the consortium is responsible for monitoring the urban recovery process using the monitoring and indicator systems proposed in this report. The consortium members would agree that the Municipality of Beirut will lead the work, while the BUL will coordinate between the members.

This report is structured in three main sections. The first section identifies the neighborhood performance indicators. These indicators are formulated against the objectives set in the strategic framework in Report 03. They assess the urban transformation of the neighborhood of Karantina toward the defined recovery objectives and the community vision. In the second section, another set of indicators is developed based on the proposed action plans in Report 04. Finally, to ensure that Karantina is not evaluated in isolation from its urban context, the third section adds indicators that assess its alignment with the larger context of Beirut. The indicators examine the changes in Karantina's level of alignment with city-scale references. In the absence of a strategy for a city-scale post-blast urban recovery, the report will reference selected professional studies on Beirut.

2. NEIGHBORHOOD PERFORMANCE INDICATORS

This section proposes indicators for monitoring ongoing changes in Karantina in the post-blast urban recovery phase. The aim is to assess the urban transformation of the neighborhood toward the defined urban recovery objectives and the community vision. These indicators respond specifically to the general and strategic objectives formulated in the strategic framework in Report 03. They aim to direct the data collection for monitoring the urban recovery process of Karantina while taking the primary data collected in Report 02 as a benchmark. This section also suggests possible sources of data collection, including public agencies, private institutions, research and statistics centers, and non-governmental organizations.

1 This report depends heavily on the availability of data. As the monitoring process will take place in a data-scarce context, there is a need to provide a wide range of data sources. These sources should not be limited to government institutions but include public agencies, private companies, non-governmental organizations, and research centers. For this purpose, the monitoring phase may also require further fieldwork; therefore, securing funds for the necessary fieldwork and data collection becomes essential.

General Objective A		
Objectives	**Indicators**	**Potential Stakeholders and Sources of Data**
GO A Protect the existing affordable housing units in Karantina and provide a larger stock that is inclusive of a diversity of social and income groups.	• Percentage of affordable housing units in the total housing stock. • Housing price to income ratio. • Rent prices to income ratio. • Housing utility costs to income ratio. • Percentage of rent increase per household. • Number of tenants receiving eviction notices or are threatened with eviction. • Number of tenants who were evicted. • Number and diversity of housing units.	• Public Corporation for Housing in the Ministry of Social Affairs • The Beirut Urban Observatory in the Beirut Urban Lab • The City of Tenants Platform by the Beirut Urban Lab • The Beirut Built Environment Database by the Beirut Urban Lab • The Precarious Lives Platform by the Beirut Urban Lab • The Housing Monitor by Public Works Studio • Non-profit research and advocacy organizations involved in housing rights – for example, Public Works and Legal Agenda • International agencies involved in housing projects – for example, UN-Habitat
SO A1 Protect and expand the existing stock of affordable housing units.	• Percentage of the net monthly expenditure on housing to the total monthly income of households in Karantina. • Number of new affordable housing units. • The implementation of new rent regulations, Including rent controls. • Number of privately owned lots released form the Lebanese Army. • Number of households that own their house.	• Public Corporation for Housing in the Ministry of Social Affairs • The Beirut Urban Observatory in the Beirut Urban Lab • The City of Tenants Platform by the Beirut Urban Lab • The Beirut Built Environment Database by the Beirut Urban Lab • The Precarious Lives Platform by the Beirut Urban Lab • The Housing Monitor by Public Works Studio • Non-profit research and advocacy organizations involved in housing rights – for example, Public Works and Legal Agenda • International agencies involved in housing projects – for example, UN-Habitat

SO A2 Provide job opportunities for the residents of Karantina.	• Employment rate across age and gender groups. • Number of new work opportunities created. • Percentage of employment-related youth emigration outside Karantina. • Number of skilled labor jobs in businesses within Karantina. • Number of capacity-building projects and workshops for the residents of Karantina. • Number of employees in the three economic drivers (the slaughterhouse, the public market, and the fish market). • Total population served by the three economic drivers.	• Central Administration of Statistics; the official Statistics Office of the Lebanese Republic • International agencies involved in social and economic justice – for example, the International Labor Organization • The Ministry of Economy • The Municipality of Beirut. • The Butchers Union and Livestock Traders Syndicate • The Lebanese Meat Traders • Local and international NGOs involved in Karantina – for example, UNDP • The Beirut Urban Observatory in the Beirut Urban Lab
SO A3 Improve the provision of public services in Karantina.	• Number of public services (schools, clinics, and sport facilities) available within walking distance in Karantina. • Area of public open spaces that are public and accessible to the residents of Karantina.	• The Beirut Urban Observatory in the Beirut Urban Lab
SO A4 Provide access to new and inclusive housing units across a diversity of social and income groups.	• Ratio of the under 30 years old average income to the average housing costs. • Percentage of non-Lebanese residents in the three sub-neighborhoods. • Percentage distribution of religious sects among and within the three sub-neighborhoods. • Number of new housing units with diverse typologies (studios, single family apartments, and multi-family apartments). • Number of lots no longer frozen for development or under the control of the Lebanese Army.	• Central Administration of Statistics; the official Statistics Office of the Lebanese Republic • Private research and statistics consultancy firms – for example, Information International SAL and Statistics Lebanon • Local and International NGOs involved in Karantina – for example, UNDP.

SO A5 Ensure that new developments meet inclusivity standards.	• Number of housing units with improved services and facilities for people with special needs (common spaces, accessibility needs).	• The Ministry of Social Affairs • Local NGOs advocating for the rights of the disabled – for example, the Lebanese Union for People with Physical Disabilities • Non-profit research and advocacy organizations involved in housing rights – for example, Public Works and Legal Agenda • The Beirut Urban Observatory in the Beirut Urban Lab • Local and international NGOs involved in Karantina – for example, UNDP
SO A6 Limit the encroachment of the businesses into the residential sub-neighborhoods.	• Number of new businesses replacing residential units in the sub-neighborhoods.	• The Beirut Urban Observatory in the Beirut Urban Lab • Local and international NGOs involved in Karantina – for example, UNDP
SO A7 Decrease the vulnerabilities that are associated with informal practices.	• Proportion of households living in temporary or dilapidated structures. • Number of tenants receiving eviction notices or are threatened with eviction. • Number of tenants who were evicted. • Number of household members per unit.	• The City of Tenants Platform by the Beirut Urban Lab • The Precarious Lives Platform by the Beirut Urban Lab • The Housing Monitor by Public Works Studio
SO A8 Improve the livability and building conditions within the residential clusters.	• Number of household members per unit. • Proportion of households living in temporary or dilapidated structures. • Proportion of households living in buildings which do not comply with the requirements of the Building Law and safety codes. • Number of financial packages offered to landlords to rehabilitate their houses.	• The Municipality of Beirut • The City of Tenants Platform by the Beirut Urban Lab • The Precarious Lives Platform by the Beirut Urban Lab • The Housing Monitor by Public Works Studio • UN-Habitat

General Objective B		
Objectives	**Indicators**	**Potential Stakeholders and Sources of Data**
GO B Strengthen the socio-cultural, economic, and spatial connectivity of Karantina internally and externally with its surroundings.	• Number of city-scale socio-cultural and economic activities that take place in Karantina. • Total population served by the businesses in Karantina. • Number of available and safe pedestrian crossings and connections between Karantina and its surrounding. • Number of public transportation buses that pass through Karantina. • Number of public transportation buses that stop at the edge of Karantina.	• The Ministry of Public Works and Transport • Local and international NGOs involved in Karantina – for example, UNDP
SO B1 Connect Karantina spatially with its surroundings.	• Number of public transportation buses that pass through Karantina. • Number of public transportation buses that stop at the edge of Karantina. • Number of available and safe pedestrian crossings and connections between Karantina and its surrounding. • Number and Area of shared spaces with surrounding neighborhoods or within walking distance. • Number of businesses created around the three economic drivers.	• The Ministry of Public Works and Transport • Local and international NGOs involved in Karantina – for example, UNDP • NGOs involved in local road safety – for example, Yasa and KUNHADI
SO B2 Reconnect Karantina with the sea and the Beirut Central District (BCD)	• The length (in meters) of the implemented coastline corridor that connects Karantina to the BCD. • Number of people commuting daily from Karantina to the BCD.	• The Ministry of Public Works and Transport • Local and international NGOs involved in Karantina – for example, UNDP

	• Number of accessible points to the sea, through the port and within walkable distance from Karantina.	• The Beirut Urban Observatory in the Beirut Urban Lab
SO B3 Integrate Karantina into the city-wide transportation network.	• Number of public transportation buses that pass through Karantina. • Number of public transportation buses that stop at the edge of Karantina. • Number of accessible bus stations and stops for people with reduced physical mobility.	• The Ministry of Public Works and Transport • Local and international NGOs involved in Karantina – for example, UNDP
SO B4 Improve accessibility to the different areas within Karantina and between them.	• Area of soft mobility connections per capita inside Karantina. • New pedestrian-orientated amenities such as bins, lighting, seating, and signage. • Number of shared spaces at the scale of the neighborhood. • An increase in the number of streets that are open to the public and are demilitarized. • The length (in meters) of the implemented coastline corridor that connects Karantina to the BCD. • Number of people commuting daily from Karantina to the BCD.	• The Beirut Urban Observatory by the Beirut Urban Lab • The engineering unit at the Municipality of Beirut • The Beirut Urban Observatory by the Beirut Urban Lab
SO B5 Strengthen the role of economic drivers to connect Karantina to the city-scale economy.	• Number of employees in the three economic drivers (the slaughterhouse, the public market, and the fish market). • Total population served by the three economic drivers. • Number of capacity-building projects and workshops to support port-related.	• The Ministry of Economy and Trade • Private research and statistics consultancy firms – for example, Information International SAL and Statistics Lebanon • Local and international NGOs involved in Karantina – for example, UNDP
SO B6 Provide access to job opportunities in micro, small, and medium businesses.	• Number of people from Karantina hired locally in micro, small, and medium businesses.	• Central Administration of Statistics; the official Statistics Office of the Lebanese Republic

	• Employment rates across age and gender groups. • Number of new opportunities created. • Percentage of employment-related youth emigration outside Karantina. • Number of skilled labor jobs in businesses within Karantina. • Number of capacity-building projects and workshops for the residents of Karantina.	• Private research and statistics consultancy firms – for example, Information International SAL and Statistics Lebanon • Local and international NGOs involved in Karantina – for example, UNDP
SO B7 Connect the different businesses within Karantina.	• Number of new collaborations between businesses within Karantina. • Number of capacity-building projects and workshops to support port-related and other industrial businesses.	• Local and international NGOs involved in Karantina – for example, UNDP
SO A8 Enhance the public realm and provide shared facilities and spaces to promote social connection across the three sub-neighborhoods.	• Number of public spaces, with inclusivity standards, available for social events and gathering. • Percentage of people residing in less than 500 meters from a public space/facility. • Number of social gathering events taking place in Karantina. • Area of public open spaces that are public and accessible to the residents of Karantina.	• The Municipality of Beirut • Local and international NGOs involved in Karantina – for example, UNDP • The Beirut Urban Observatory in the Beirut Urban Lab
General Objective C		
Objectives	**Indicators**	**Potential Stakeholders and Sources of Data**
GO C Support, increase, and sustain cultural and economic vitality in Karantina.	• Number of employees in the three economic drivers (the slaughterhouse, the public market, and the fish market). • Total population served by the three economic drivers. • Number of businesses opening in Karantina.	• The Ministry of Economy and Trade • Private research and statistics consultancy Firms – for example, Information International SAL and Statistics Lebanon. • The Beirut Urban Observatory in the Beirut Urban Lab

	• Employment rate in Karantina. • Number of open spaces that can host occasional, weekly, monthly, and annual cultural and economic festivals. • Number of cultural and economic festivals taking place in Karantina. • Number of design, art, and craft-related businesses operating in Karantina.	• The Ministry of Labor • Central Administration of Statistics; the official Statistics Office of the Lebanese Republic Information • Local and international NGOs involved in Karantina – for example, UNDP
SO C1 Restore and strengthen the role of the key economic drivers in Karantina.	• Number of employees in the three economic drivers (the slaughterhouse, the public market, and the fish market). • Total population served by the three economic drivers. • Number of businesses opening around the economic drivers.	• The Ministry of Economy and Trade • The Butchers Union and Livestock Traders Syndicate • The Lebanese Meat Traders • Private research and statistics consultancy Firms – for example, Information International SAL and Statistics Lebanon • Local and international NGOs involved in Karantina – for example, UNDP • The Beirut Urban Observatory in the Beirut Urban Lab
SO C2 Provide job opportunities for the residents of Karantina.	• Employment rate across age and gender groups. • Number of new work opportunities. • Percentage of employment-related youth emigration outside Karantina. • Number of skilled labor jobs in businesses within Karantina. • Number of capacity-building projects and workshops for the residents of Karantina. • Number of employees in the three economic drivers (the slaughterhouse, the public market, and the fish market). • Total population served by the three economic drivers.	• The Ministry of Education and Higher Education • Private research and statistics consultancy firms – for example, Information International SAL and Statistics Lebanon • Local and international NGOs involved in Karantina – for example, UNDP • The Butchers Union and Livestock Traders Syndicate • The Lebanese Meat Traders • International agencies involved in social and economic justice – for example, International Labor Organization

SO C3 Support the existing micro businesses and sustain their operations in Karantina.	• Number of financial incentives given to existing micro and specialized businesses. • Number of subsidies given to micro and specialized businesses. • Number of micro and specialized businesses owners who have insurance. • Number of business owners that receive assistance, aid, or service after the Beirut Port blast. • Number of micro and specialized businesses provided with adequate access to online platforms and services that can enhance their operations.	• The Ministry of Economy and Trade • The Ministry of Finance • The Chamber of Commerce Industry and Agriculture of Beirut and Mount Lebanon • Local and international NGOs involved in Karantina – for example, UNDP • The Beirut Urban Observatory in the Beirut Urban Lab • Entrepreneurship organizations that support businesses – for example, Berytech
SO C4 Increase the diversity and vitality of the traditional crafts and other manufacturers in Karantina.	• Number of financial incentives given to existing micro and specialized businesses. • Number of subsidies given to micro and specialized businesses. • Number of micro and specialized businesses owners who have insurance. • Number of business owners that receive assistance, aid, or service after the Beirut Port blast. • Number of capacity-building workshops for crafts-related businesses. • Employment rates in the crafts and manufacturing sector in Karantina. • Number of design, art, and craft-related businesses in Karantina.	• The Ministry of Labor • International agencies involved in social and economic justice – for example, International Labor Organization • Local and international NGOs involved in Karantina – for example, UNDP • Entrepreneurship organizations that support businesses – for example, Berytech • NGOs involved in arts and design activities – for example, Haven for Artists
SO C5 Support the growth of port-related businesses.	• Number of yearly registration numbers of port-related companies in Karantina. • Number of capacity-building projects and workshops that can support port-related and other industrial businesses.	• The Ministry of Economy and Trade • Entrepreneurship organizations that support businesses – for example, Berytech

SO C6 Improve cultural vitality and leisure activities in Karantina.	• Number of open spaces that can host occasional, weekly, monthly, and annual cultural and economic festivals. • Number of cultural and economic festivals in Karantina. • Number of artists and designers engaged in working in, networking, and complementing the existing crafts and industries in Karantina.	• The Municipality of Beirut • The Beirut Urban Observatory in the Beirut Urban Lab • NGOs involved in arts and design activities – for example, Haven for Artists
General Objective D		
Objectives	**Indicators**	**Potential Stakeholders and Sources of Data**
GO D Promote a sustainable development strategy that is participatory and phased over a period of time.	• Number of memorandums of understanding for development projects signed with the Municipality of Beirut and the Ministry of Public Works and Transport. • Number of meetings held between different stakeholders and the local communities in Karantina to develop and plan projects.. • Number of approved construction permits by the Municipality of Beirut to development projects. • Total budgets and funds for development projects in Karantina. • Number of public-private partnerships for planning and executing the development projects. • Several lots no longer frozen for development or under the control of the Lebanese Army. • New lots that are available by the Municipality for development. • New government regulations that support development.	• The Municipality of Beirut • The Ministry of Public Works and Transport

SO D1 Advance a development program for Karantina and remove existing obstacles to development.	• Number of lots no longer frozen for development or under the control of the Lebanese Army. • The subdivision of the municipal lot at the southern edge of Karantina. • Number of proposals for the redevelopment of the municipal lot. • Progress in the implementation of a development program. • Total budgets and funds for development projects in Karantina. • Number of newly executed public utility projects. • Number of approved construction permits by the Municipality of Beirut to development projects Number of lots occupied by the Lebanese Army. • Number of unbuildable lots. • Number of physical obstacles removed in the public realm – for example, the removal of fences, checkpoints, and heavy blocks.	• The Municipality of Beirut • The Ministry of Public Works and Transport
SO D2 Safeguard Karantina against the threats of gentrification and displacement.	• Number of businesses still operating in Karantina per year. • Number of high-end businesses opening within the residential clusters. • Number of tenants evicted for building demolition. • Number of issued policies that can regulate development in residential and industrial areas in Karantina.	• The Housing Monitor by Public Works Studio • Local and international NGOs involved in Karantina – for example, UNDP • The Beirut Urban Observatory by the Beirut Urban Lab • The Beirut Built Environment Database by the Beirut Urban Lab
SO D3 Improve the overall quality of the built environment.	• Number of renovated units/ buildings. • Number of buildings in a dilapidated condition.	• The City of Tenants Platform by the Beirut Urban Lab • The Precarious Lives Platform by the Beirut Urban Lab

	• Number of funding channeled through donors to vulnerable landlords for building renovation. • Number of public spaces with inclusive standards available for social events and gathering. • Percentage of people residing in less than 500 meters from a public space/facility.	• The Beirut Urban Observatory by the Beirut Urban Lab • Local and international NGOs involved in Karantina – for example, UNDP
SO D4 Improve the local infrastructural services and amenities.	• Total investment in transport (in US dollars). • Total investment in infrastructural projects (in US dollars). • Number of new public services (schools, clinics, and sport facilities) available within walking distance in Karantina.	• The Ministry of Public Works and Transport • International donors investing in Karantina – for example, UNOPS • The Beirut Urban Observatory in the Beirut Urban Lab
SO D5 Improve connectivity and accessibility to Karantina.	• Number of available and safe pedestrian crossings and connections between Karantina and its surrounding. • Number and area of shared spaces with surrounding neighborhoods or within walking distance. • The length (in meters) of the implemented coastline corridor that connects Karantina to the BCD. • Number of people commuting daily from Karantina to the BCD. • Number of accessible points to the sea, through the port and within walkable distance from Karantina. • Number of public transportation buses that pass through Karantina. • Number of streets that are open to the public and are demilitarized.	• The Beirut Urban Observatory by the Beirut Urban Lab • Local road safety NGOs – for example, Yasa and KUNHADI • The Ministry of Public Works and Transport • The engineering unit at the Municipality of Beirut • Local and international NGOs involved in Karantina – for example, UNDP

	• Area of public open spaces accessible to residents of Karantina. • Number of public transportation buses that stop at the edge of Karantina. Number of accessible stations and stops to people with reduced physical mobility.	
SO D6 Engage the residents of Karantina in local development programs and long-term shared visions.	• Number of town hall meetings and discussions with local communities in Karantina.	• Local and international NGOs involved in Karantina – for example, UNDP
General Objective C		
Objectives	**Indicators**	**Potential Stakeholders and Sources of Data**
GO E Improve the quality of the urban environment in Karantina.	• Percentage of polluting parameters in the air. • Total investment in infrastructural projects (in US dollars). • Length (in meters) of walkable streets across the three sub-neighborhoods. • Number of public spaces, with inclusivity standards, available for social events and gathering. • Area of public open spaces accessible to residents of Karantina.	• Private research centers – for example, the Nature Conservation Center at the American University of Beirut • The Ministry of Environment • The Ministry of Public Health • The Ministry of Public Works and Transportation • The engineering unit at the Municipality of Beirut • The Beirut Urban Observatory in the Beirut Urban Lab
SO E1 Improve the physical quality of the damaged and degraded buildings.	• Number of financial packages offered to landlords to rehabilitate their houses. • Number of funding channeled through donors to vulnerable landlords for building renovation. • Number of renovated units/ buildings. • Number of buildings in a dilapidated condition. • Number of household members per unit.	• International donors investing in Karantina – for example, UNOPS • The Beirut Urban Observatory in the Beirut Urban Lab • The Precarious Lives Platform by the Beirut Urban Lab • The Housing Monitor by Public Works Studio

SO E2 Reduce and contain hazardous wastes and harmful emissions.	• Annual number of inter-municipal meetings to coordinate the management of solid waste and sewage. • Percentage of materials saved from waste disposal – including recycled materials. • Volume of emissions and hazardous wastes. • Number of projects for the rehabilitation of the Beirut River.	• The Municipality of Beirut • Local and international NGOs involved in Karantina – for example, UNDP • Private research Centers – for example, the Nature Conservation Center at the American University of Beirut • The Ministry of Energy and Water
SO E3 Reduce sound and air pollution.	• Percentage of polluting parameters in the air. • Number of households using alternative energy sources. • Sound levels produced by trucks, cars, port, and generators. • Number of trucks entering and/or parking in Karantina daily. • Number of municipal staff trained on the maintenance and operation of spaces in Karantina.	• Private research centers – for example, the Nature Conservation Center at the American University of Beirut • The Ministry of Environment • Local and international NGOs involved in Karantina – for example, UNDP • The Municipality of Beirut
SO E4 Improve the dilapidated water, sewage, and other infrastructural networks.	• Total investment in infrastructural projects (in US dollars).	• The Ministry of Public Works and Transportation
SO E5 Improve the quality and safety of the public domain which supports the existing socio-spatial practices across the three sub-neighborhoods.	• Number of public spaces, with inclusivity standards, available for social events and gathering. • Percentage of population residing in less than 500 meters from a public space/facility. • Number of streets that are open to the public and are demilitarized. • Area of public open spaces accessible to residents of Karantina. • Length (in meters) of walkable streets across the three sub-neighborhoods.	• The Beirut Urban Observatory in the Beirut Urban Lab • Local and international NGOs involved in Karantina – for example, UNDP
SO E6 Protect and maintain the layer of landscape heritage.	• Number of landscape elements classified as landscape heritage.	• Local and international agencies that explore and classify built and landscape heritage – for example, UNESCO

3. PROGRAM INDICATORS

In this section of the report, another set of indicators is developed based on the proposed action plans in Report 04. These indicators respond to the elements of the result chain identified for each action plan. The result chain includes ***activities, outputs, use of outputs, outcomes, and impact***. The ***activities*** identify the actions needed and elaborate on the process toward reaching the ***outputs***. The direct result of the action taken is stated in the ***outputs*** section. The ***use of outputs*** section projects how the direct beneficiaries will use the ***outputs*** to achieve the project objectives. The ***outcomes*** and ***impact identify*** the direct and long-term benefits of the project, respectively.

Like the neighborhood performance indicators, this section also suggests possible stakeholders and sources of data, including public agencies, private institutions, research and statistics centers, and non-governmental organizations. [2]

2 This report depends heavily on the availability of data. As the monitoring process will take place in a data-scarce context, there is a need to provide a wide range of data sources. These sources should not be limited to government institutions but include public agencies, private companies, non-governmental organizations, and research centers. For this purpose, the monitoring phase may also require further fieldwork; therefore, securing funds for the necessary fieldwork and data collection becomes essential.

AP 01 Revise the different rent-related laws in Lebanon to introduce price caps, price adjustments, and mitigating measures that can protect vulnerable tenants who currently pay rent prices below the market rates.		
Contributes to Strategies: • **A1.1** Regulate rents in Karantina.		
Result Chain	**Indicators**	**Potential Stakeholders and Sources of Data**
Activities		
• Draft a proposal to review the different rent laws. • Consult experts on rent-related laws in Lebanon. • Reform the rent laws that cover price caps, price adjustments, and mitigating measures for vulnerable tenants. • Submit a proposal to the Parliamentary Committee for their review and approval.	• Number of meetings held between experts to revise the rent-related laws. • A proposal for a revised rent law. • Revisions to the rent law submitted to the Lebanese Parliamentary Committee. • A Parliamentary Committee meeting held to discuss the reformed law proposal.	• Non-profit research and advocacy organizations involved in housing rights – for example, Public Works and Legal Agenda • The National Committee to Protect the Right to Housing and Tenants Rights • The Beirut Urban Lab • Media outlets
Outputs		
• Reforms in the Lebanese laws to include rent caps and mitigating measures against price adjustments.	• A reformed rent law published in the official Gazette Journal.	• The official Gazette Journal
Use of Outputs		
• Vulnerable tenants are protected from housing rent hikes and evictions. • Rent prices are controlled for affordable units for low-income tenants.	• Number of tenants receiving eviction notices or are threatened with eviction. • Number of tenants who were evicted. • Prices of rent. • Percentage of affordable housing units in the total housing stock.	• The Housing Monitor by Public Works • The City of Tenants Platform by the Beirut Urban Lab • The Precarious Lives Platform by the Beirut Urban Lab
Outcomes/Direct Benefits		
• Low-income residents in Karantina maintaining access to affordable housing units.	• Percentage of affordable housing units in the total housing stock. • Prices of rent. • Number of tenants threatened with eviction. • Number of tenants who were evicted.	• The Housing Monitor by Public Works • The City of Tenants Platform by the Beirut Urban Lab • The Precarious Lives Platform by the Beirut Urban Lab

Impacts/Indirect Benefits		
• Sustain affordable housing in the neighborhood. • Decline in the displacement of people. • Restored property values. • A diversity of household types across income groups.	• Percentage of affordable housing units in the total housing stock • Prices of rent. • Number of tenants threatened with eviction. • Number of tenants who were evicted. • Prices of housing units per square meter. • Number of new housing units with diverse typologies (studios, single family apartments, and multi-family apartments). • Percentage of the net monthly expenditure on housing to the total monthly income of households in Karantina.	• The Housing Monitor by Public Works • The Housing Monitor by Public Works The City of Tenants Platform by the Beirut Urban Lab • The Precarious Lives Platform by the Beirut Urban Lab
AP 02 Establish a housing monitor for formal and informal tenancy agreements with legal counselling support to protect the rights of the tenants.		
Contributes to Strategies: • **A1.1** Regulate rents in Karantina. • **A7.1** Advocate for the rights of tenants to reduce vulnerabilities and improve living conditions.		
Result Chain	**Indicators**	**Potential Stakeholders and Sources of Data**
Activities		
• Form a team of legal experts to establish the housing monitor and a registry that tracks informal rent agreements. • Design a management and operation system for the registry platform.	• A team of experts is formed. • Number of meetings held to design the registry and its management plan. • A management plan of the registry platform is executed.	• The Municipality of Beirut • Non-profit research and advocacy organizations involved in housing rights – for example, Public Works and Legal Agenda • The National Committee to Protect the Right to Housing and Tenants Rights
Outputs		
• A housing monitor and informal registry are established and operated.	• Number of residents who access and use the housing monitor and the registry.	• Non-profit research and advocacy organizations involved in housing rights – for example, Public Works and Legal Agenda • The National Committee to Protect the Right to Housing and Tenants Rights

Use of Outputs		
• Residents in Karantina can register their tenure agreements. • Residents of Karantina can resort to the monitor for legal advice.	• Number of housing agreements that are registered. • Number of legal advice provided to residents. • Number of issues resolved between landlords and tenants.	• The established housing monitor
Outcomes/Direct Benefits		
• A reference point for residents to help them make informed decisions. • Arbitration between landlords and tenants. • Negotiations for better housing security. • Resolved legal disputes around informal tenancy agreements. • Tracking of informal rent agreements. • Knowledge of residents on the normal rent prices that they should pay. • Documentation of cases of overcrowding, evictions, and ad-hoc rent hikes. • Preserved rights of informal tenants.	• Number of issues resolved through the housing monitor. • Prices of rent. • Number of registered informal rent agreements. • Length of the residents' stay in their housing units. • Number of tenants receiving eviction notices or are threatened with eviction. • Number of tenants who were evicted.	• The Municipality of Beirut • Non-profit research and advocacy organizations involved in housing rights – for example, Public Works and Legal Agenda • The City of Tenants Platform by the Beirut Urban Lab • The Precarious Lives Platform by the Beirut Urban Lab • The National Committee to Protect the Right to Housing and Tenants Rights
Impacts/Indirect Benefits		
• Less overcrowding in Karantina. • Tenants protected against eviction. • More transparency on rent prices. • Residents and community groups who are more knowledgeable of the legal aspects of housing. • Less tension between the residents of Karantina. • Empowered residents who are more inclined to stay in Karantina.	• Number of household members per housing unit. • Number of tenants receiving eviction notices or are threatened with eviction. • Number of tenants who were evicted. • Number of disputes between residents on housing issues. • Length of the residents' stay in their housing units.	• The Municipality of Beirut • Non-profit research and advocacy organizations involved in housing rights – for example, Public Works and Legal Agenda • The City of Tenants Platform by the Beirut Urban Lab • The Precarious Lives Platform by the Beirut Urban Lab • The National Committee to Protect the Right to Housing and Tenants Rights

• Secure informal tenure for the residents of Karantina. • A decrease in the overall vacancy rate in housing units in Karantina. • Reformed law on tenancy.	• Number of vacant apartments in Karantina. • Policies drafted and passed to improve tenancy conditions.	• The Beirut Built Environment Database by the Beirut Urban • Lab The official Gazette Journal • Media outlets
AP 03 Conduct a feasibility study of the LINORD Project by a group of local landlords, academics, and professionals to assess its physical and social impact on the residential sub-neighborhoods in Karantina and advocate for the necessary amendments.		
Contributes to Strategies: • **A1.2/A4.2/D1.1:** Release frozen, militarized, and unbuildable privately owned lots, and facilitate the development of new housing units.		
Result Chain	**Indicators**	**Potential Stakeholders and Sources of Data**
Activities		
• Form a group of local landlords, academics, and professionals to conduct a feasibility study of the LINORD project. • Form a consultative committee from the residents of Karantina. • Conduct field surveys to report changes on the ground since the proposed project. • Advocate for amendments to the projects.	• Number of meetings held between the team of experts and the consultative committee. • Number of advocacy events.	• Municipalities involved in the LINORD project • The Council for Development and Reconstruction at the Ministry of Public Works and Transport • The Order of Engineers and Architects in Beirut • The Beirut Urban Lab • Local and international NGOs involved in Karantina – for example, UNDP • Media outlets
Outputs		
• A feasibility study of the LINORD Project.	• A feasibility study of the LINORD Project submitted to the Council for Development and Reconstruction.	• The Council for Development and Reconstruction at the Ministry of Public Works and Transport
Use of Outputs		
• The team can negotiate with the Council for Development and Reconstruction possible amendments or alternative proposals to the LINORD project. • The Council for Development and Reconstruction adopting the alternative proposals. • Implementation of the recommendations in the study.	• Number of meetings held between the team and the Council for Development and Reconstruction.	• The Council for Development and Reconstruction at the Ministry of Public Works and Transport

Outcomes/Direct Benefits		
• Private owners gain access to their lots or are given compensations for their lots. • Less disruption about the social and spatial fabrics already fragmented and vulnerable. • Assessed principles of sustainability in the current proposal. Empowered civil and private institutions. Impacts/ Indirect Benefits • Empowered civil and private institutions.	• Number of discussions and coordination meetings between the residents. • Number of public properties maintained in Karantina. • Number of sustained socio-spatial practices and community spaces.	• Local and international NGOs involved in Karantina – for example, UNDP • The Beirut Built Environment Database by the Beirut Urban Lab
Impacts/Indirect Benefits		
• Empowered community groups in Karantina who can voice their concerns and address common needs and interests.	• Number of residents involved in the consultative activities.	• Local and international NGOs involved in Karantina – for example, UNDP

AP 04 Form a neighborhood committee.

Contributes to Strategies:

- **A1.2/A4.2/D1.1:** Release frozen, militarized, and unbuildable privately owned lots, and facilitate the development of new housing units.
- **B4.1/ D5.6/E5.2:** Remove all access restrictions to the public domain.
- **D6.1:** Empower and strengthen the representation of different community groups in decision-making.

Result Chain	Indicators	Potential Stakeholders and Sources of Data
Activities		
• Conduct meetings between the different community members to form the neighborhood committee. • Train the potential members of the committee in management and communication skills.	• Number of neighborhood committee meetings held in Karantina. • Number of potential members trained in management and communication skills.	• Local and international NGOs involved in Karantina – for example, UNDP
Outputs		
• A neighborhood committee that is ready to convene, take collective decisions, and negotiate issues related to Karantina with other stakeholders.	• Number and diversity of committee members. • Number of committee meetings held in Karantina.	• Local and international NGOs involved in Karantina – for example, UNDP

Use of Outputs		
• Karantina committee members convening to take decisions that affect the different communities. • Negotiating with the Lebanese Army and lobbying with the government's parliamentary representatives to propose legal steps to remove the encroachments on private properties and the public domain, including roads and sidewalks. • Discussing the relevant development projects with the Maronite Waqf and other major stakeholders and providing capacity building workshops and professional support for the different community groups. • Organizing town hall meetings with the different community groups and other relevant stakeholders to discuss plans and potential projects in Karantina. • Utilizing available material resources and the local capacities of people for the benefit of Karantina. • Fund raising for social support and/or small community projects.	• Number of meetings held with the Lebanese Army, parliamentary representatives, the Maronite Waqf, and other stakeholders. • Number of organized workshops and training sessions that provide capacity building to community groups. • Number of organized town hall meetings to discuss plans and projects in Karantina. • Number of resources/capacities in Karantina used by community groups. • Amount of funds raised for social support or community projects (a community fund).	• Local and international NGOs involved in Karantina – for example, UNDP
Outcomes/Direct Benefits		
• Resolving long-standing issues such as the conditions of lots occupied by the Lebanese Army. • Discussing the needs of the neighborhood.	• Number of issues that the neighborhood committee resolves. • Number of proposed projects based on the needs assessment. • Amount of funds raised for community projects in Karantina.	• Local and international NGOs involved in Karantina – for example, UNDP
Impacts/Indirect Benefits		
• Promoting civic engagement and responsible citizenship.	• Number of projects/ activities that the neighborhood committee executes.	• Local and international NGOs involved in Karantina – for example, UNDP

• Empowered community groups in Karantina who can voice their concerns and address their common needs and interests, and engage in public affairs. • Strengthened social relationships between the residents, and between them and the Municipal Council.	• Number of Karantina members engaged in the meetings and activities that the neighborhood committee organizes. • Diversity of profiles of people engaged in this process. • Number of social events and gatherings taking place between the residents. • Number of members from Karantina elected in the Municipal Council.	• The Municipality of Beirut

AP 05 Pool the block of unbuildable lots and develop it through a public-private partnership into an affordable and inclusive housing project that incorporates multiple typologies of residential units and accommodates different family sizes and income groups.

Contributes to Strategies:

- **A1.2/A4.2/D1.1:** Release frozen, militarized, and unbuildable privately owned lots, and facilitate the development of new housing units.
- **A4.1:** Diversify the typologies of housing units from studios to single family and multi-family apartments.

Result Chain	Indicators	Potential Stakeholders and Sources of Data
Activities		
• Initiate the proposal for a housing project to pool the lots in the block. • Set up a private-public partnership to implement the project. • Enforce a percentage of affordable housing units in the proposed project.	• A proposal initiated by the Higher Council for Privatization and Partnerships. • Number of owners who agree on the proposal to pool their lot. • Number of public agencies engaged in this process. • A bid is open to appoint a partner from the private sector.	• The Higher Council for Privatization and Partnerships • The Public Corporation for Housing in the Ministry of Social Affairs • The Municipality of Beirut • The Directorate General of Urban Planning • The Order of Engineers and Architects in Beirut
Outputs		
• A housing project that has between 90 and 120 housing units with a variety of typologies that can accommodate a diversity of family sizes and income groups.	• Number of private investors investing in the program. • Prices of housing units in the housing project. • The percentage of affordable housing units in the total of number of units. • Rent prices in the housing project.	• The Public Corporation for Housing in the Ministry of Social Affairs • The Municipality of Beirut • The real estate developers of the project • The City of Tenants Platform by the Beirut Urban Lab

Use of Outputs		
• Public agencies, private investors, and property owners develop the block as per the quotas set towards investment. • Lower income groups purchase affordable housing units. • Affordable rent for retail units.	• Number of contracts signed between landowners, private investors, and actors in the public sector. • Number of construction permits given to the investors. • Number of affordable housing units. • Number of new housing units with diverse typologies (studios, single family apartments, and multi-family apartments). • Rent prices for retail and small business.	• The Higher Council for Privatization and Partnerships • The Directorate General of Urban Planning • The Municipality of Beirut • The Order of Engineers and Architects in Beirut • The real estate developers of the project • The City of Tenants Platform by the Beirut Urban Lab
Outcomes/Direct Benefits		
• Increase in the share of affordable housing projects in Karantina. • Decrease in the number of vacant lots. • Resolved issue of multiple shareholders and unbuildable lots.	• Number of affordable housing units. • Number of vacant lots in Karantina. • Number of lots with resolved issues.	• The City of Tenants Platform by the Beirut Urban Lab • The Beirut Built Environment Database by the Beirut Urban Lab • The General Directory of Land Registry and Cadaster
Impacts/Indirect Benefits		
• Increased investment and development in Karantina.	• Number of investments and development projects in Karantina following the implementation of the project.	• The Directorate General of Urban Planning • The Municipality of Beirut

AP 06 Revoke the policies that exempt the owners of vacant apartments from paying taxes, introduce a vacancy tax, and encourage or mandate the development of mixed-income housing units through building or tax incentives and Inclusionary Housing Ordinance.

Contributes to Strategies:

- **A1.2/A4.2/D1.1:** Release frozen, militarized, and unbuildable privately owned lots, and facilitate the development of new housing units.
- **A4.1:** Diversify the typologies of housing units from studios to single family and multi-family apartments.
- **A8.2/E1.1:** Offer financial packages and incentives to support the landlords in rehabilitating their buildings and maintain the stock of affordable housing units.

Result Chain	Indicators	Potential Stakeholders and Sources of Data
Activities		

• Form a team of experts to propose the implementation of a vacancy tax, reform the property tax law, and the municipal rental value fee, and support the development and implementation of an inclusionary housing ordinance.	• Number of meetings held by the team to formulate the proposals. • Meetings of the Parliamentary Committee, the Parliament, and the Council of Ministers to discuss the proposals.	• Media outlets • The Ministry of Finance • The Directorate General of Urban Planning • The Public Corporation for Housing in the Ministry of Social Affairs • The Municipality of Beirut
Outputs		
• A new vacancy tax. • Reformed property tax law with article number 15 removed. • Adjusted municipal rental value fee with article number 3 removed. • Implementation of an inclusionary housing ordinance. • Density bonuses given to developers who build affordable housing units.	• A new vacancy tax issued in the official Gazette Journal. • A reformed property tax law issued in the official Gazette Journal. • An adjusted municipal rental value fee issued in the official Gazette Journal. • An inclusionary housing ordinance is imposed on new developments. • A decision to give density bonuses for developers who include a percentage of affordable housing units.	• The official Gazette Journal • The Municipality of Beirut • The Center for Research and Studies in Legal Informatics in the Lebanese University • The Directorate General of Urban Planning
Use of Outputs		
• Low to middle income people can benefit from a stock of affordable housing units. • Developers benefiting from density bonuses in new developments.	• Housing cost to income ratio among the residents of Karantina. • Number of construction permits given to new developments with affordable housing units.	• The City of Tenants Platform by the Beirut Urban • Lab The Municipality of Beirut • The Order of Engineers and Architects in Beirut • Real estate agencies operating in Beirut
Outcomes/Direct Benefits		
• A decrease in vacancy rates in residential units in Karantina and the rest of Beirut. • Increase in the stock of affordable housing units in Karantina. • Increased mixed-income housing units.	• Number of vacant apartments. • Percentage of affordable housing units. • Average price of a housing unit in Karantina per square meter.	• The City of Tenants Platform by the Beirut Urban Lab • The Beirut Built Environment Database by the Beirut Urban Lab

• Increase in the availability and the diversity of typologies of housing units.	• Number of new housing units with diverse typologies (studios, single family apartments, and multi-family apartments).	
Impacts/Indirect Benefits		
• A decrease in the gap between supply and demand for residential units, in the process, mitigating the increase in the market prices of residential units. • A residential real estate market that includes low to moderate income housing units. • The inclusion of actors from both the private and public sectors in the provision of affordable housing units.	• Percentage of affordable housing units • Number of meetings held between actors from the private and public sector to discuss affordable housing units.	• The Public Corporation for Housing in the Ministry of Social Affairs • Real estate agencies operating in Beirut • The City of Tenants Platform by the Beirut Urban Lab
AP 07 Propose a strategy to reform the new system of housing bank loans to enable vulnerable groups of people to own their houses in Karantina.		
Contributes to Strategies: • **A1.31:** Facilitate the ownership of the existing stock of affordable housing units.		
Result Chain	**Indicators**	**Potential Stakeholders and Sources of Data**
Activities		
• Form a team of experts to propose a strategy for reforming the new system of housing bank loans. • Revise the condition of the loan that currently limits the locations of houses to rural areas in Lebanon. • Prioritize the victims of the Beirut Port blast who are threatened with displacement. • Increase the loan amount to reflect the property prices in Beirut. • Establish a hierarchy of needs to determine the eligibility criteria.	• Number of meetings of the team of experts to propose a strategy for reforming the new system of housing bank loans. • A new strategy proposed by the team to Banque de l'Habitat. • Banque de l' Habitat adopting the proposal.	• Banque de l'Habitat • Non-profit research and advocacy organizations involved in housing rights – for example, Public Works and Legal Agenda • Media outlets

• Utilize the database by the Beirut Urban Lab to establish the hierarchy of needs and support local stakeholders in processing loan applications. • Add special provisions that prohibit the reselling or leasing of the house for a set period to reduce the risk of real estate speculation and the financialization of housing.		
Outputs		
• Housing bank loans that are available for vulnerable groups of people.	• Amount of housing bank loans offered by Banque de l' Habitat. • Modified the eligibility criteria for receiving the housing loans.	• Banque de l'Habitat • Non-profit research and advocacy organizations involved in housing rights – for example, Public Works and Legal Agenda • The Public Corporation for Housing in the Ministry of Social Affairs
Use of Outputs		
• The vulnerable groups utilize the bank loans to purchase houses in Karantina.	• Number of people with low incomes subscribed to the housing bank loans.	• Banque de l'Habitat • Non-profit research and advocacy organizations involved in housing rights – for example, Public Works and Legal Agenda • The Public Corporation for Housing in the Ministry of Social Affairs • The City of Tenants Platform by the Beirut Urban Lab
Outcomes/Direct Benefits		
• An increase in the level of home ownership among the residents in Karantina. • A decrease in the rate of displacement among the residents. • A decrease in the number of problems that are associated with old rent contracts for the residents who are at risk of being evicted by 2026.	• Number of people with low incomes subscribed to the housing bank loans. • Number of problems recorded between the residents and the property owners. • Number of tenants receiving eviction notices or are threatened with eviction. • Number of tenants who were evicted.	• The City of Tenants Platform by the Beirut Urban Lab • The Beirut Built Environment Database by the Beirut Urban Lab

Impacts/Indirect Benefits		
• Increased sense of neighborhood belonging to Karantina. • Better housing security and stability. • Improved psychological health.	• Number of residents who feel they belong to Karantina. • Number of residents who own their houses in Karantina. • Number of residents who feel safe and secure in Karantina.	• Non-profit research and advocacy organizations involved in housing rights – for example, Public Works and Legal Agenda • Local and international NGOs involved in Karantina – for example, UNDP

AP 08 Establish a Business and Career Training Center in Karantina.

Contributes to Strategies:

- A2.1/B6.1/ C2.1: Build the capacities of the residents of Karantina and match them with job opportunities.
- A2.2/ B6.2/ C2.2: Match the skilled workforce with the businesses in the area and connect them with the job market at a larger scale.
- B5.2/ B7.1 / C5.1: Network, protect, and strengthen the sustainable agility and capacity of port-related and other industrial businesses.
- C3.2: Connect the micro and specialized businesses with online platforms and services to enhance their operations.
- C4.2: Train a new generation of craftsmen to sustain their crafts.

Result Chain	Indicators	Potential Stakeholders and Sources of Data
Activities		
• Consult a team of experts from the business sector to set up a program that offers capacity building workshops and helps businesses improve their operations and management. • Delegate the management and operation of the center to a local or international NGO. • Renovate or build a new facility that accommodates the Business and Career Training Center. • Negotiate with the Municipality of Beirut to establish the facility on vacant public land. • Consult a team of experts to design a digital platform that links businesses with each other and with people looking for job opportunities.	• A Business and Career Training Center under construction in Karantina. • Number of meetings held with the Municipality of Beirut to negotiate the use of public land for the center. • Number of meetings held with the consultative team to set up the program and digital platform.	• Local and international NGOs involved in Karantina – for example, UNDP • Entrepreneurship organizations supporting businesses – for example, Berytech

Outputs		
• A Business and Career Training Center that serves people in Karantina. • A program that offers consultations and capacity building workshops to the businesses in Karantina. • A digital platform that links businesses and job seekers in Karantina.	• A Business and Career Training Center established in Karantina. • Number of programs and capacity building workshops offered in the center. • A digital platform for businesses operating online.	• Local and international NGOs involved in Karantina – for example, UNDP • Entrepreneurship organizations supporting businesses – for example, Berytech
Use of Outputs		
• People in Karantina can benefit from career training sessions and workshops, and to the job platforms. • Businesses in Karantina can connect with each other through a digital platform and benefit from the consultation sessions.	• Number of residents in Karantina subscribed to the career training sessions and workshops, and to the job platforms. • Number of local businesses subscribed to the digital platform.	• Local and international NGOs involved in Karantina – for example, UNDP • Entrepreneurship organizations supporting businesses – for example, Berytech
Outcomes/Direct Benefits		
• Increase in the employment rate in Karantina. • A larger and more active labor force in Karantina, with improved local skills and capacities. • Increase in the performance of the Karantina businesses in terms of management, administration, capacities, and upscaling potentials • A stronger link between local jobseekers and recruiting businesses.	• Employment rate in Karantina. • Number of residents in Karantina subscribed to the career training sessions and workshops, and to the job platforms. • Number of businesses with enhanced performance in Karantina. • Number of residents finding jobs through the platform.	• Local and international NGOs involved in Karantina – for example, UNDP • Entrepreneurship organizations supporting businesses – for example, Berytechb
Impacts/Indirect Benefits		
• Better networking opportunities and coordination between local businesses. • Preservation of local crafts through the circulation of knowledge and skills to younger generations.	• Number of synergies made between businesses in Karantina. • Number of local crafts businesses operating in Karantina.	• Local and international NGOs involved in Karantina – for example, UNDP • Entrepreneurship organizations supporting businesses – for example, Berytech.

AP 09 Rehabilitate the slaughterhouse following international environmental standards and construction codes and reform its management and operation systems before it reopens.

Contributes to Strategies:

- **A2.3/ B5.1/ C1.1/ C2.3:** Revitalize three of the economic drivers: the slaughterhouse, the public market, and the fish market

Result Chain	Indicators	Potential Stakeholders and Sources of Data
Activities		
• Propose a rehabilitation plan for the slaughterhouse based on international standards. • Propose a new program for the slaughterhouse with more integrated activities. • Design a monitoring and management plan for the facility that adopts international standards. • Conduct training sessions to increase the level of awareness of the employees, especially their awareness of tools for managing waste in the slaughterhouse. • Implementation of the rehabilitation plan. • Rebrand the slaughterhouse to reestablish its service in the meat trading market.	• A rehabilitation plan of the slaughterhouse submitted to the Municipality of Beirut with a management program. • Number of training sessions given to the employees of the slaughterhouse.	• The Municipality of Beirut • The Butchers Union and Livestock Traders Syndicate • The Lebanese Meat Traders • The Ministry of Environment • The Ministry of Agriculture • The Ministry of Public Health
Outputs		
• Reopening of the slaughterhouse that serves Beirut and beyond with additional activities. • A management scheme for the slaughterhouse.	• Quantity and quality of meat produced in the slaughterhouse. • Number of butchery shops buying meat from the slaughterhouse. • Number of activities provided alongside the slaughterhouse – for example, markets and restaurants.	• The Ministry of Public Health • The Butchers Union and Livestock Traders Syndicate • The Lebanese Meat Traders
Use of Outputs		
• Residents of Al-Khodor sub-neighborhood reclaiming their jobs in the slaughterhouse.	• Number of residents from the Arab Tribes working in the slaughterhouse.	• Representatives from the Local Arab Tribes • The Butchers Union and Livestock Traders Syndicate

• Meat traders and businesses can buy meat from the slaughterhouse.	• Number of traders and businesses buying meat from the slaughterhouse.	• The Lebanese Meat Traders
Outcomes/Direct Benefits		
• Increased number of commercial activities in Karantina. • Mitigated exposure of the residents in Karantina to residual waste from the slaughterhouse and the associated health risks. • A healthier and more environmentally friendly approach to meat production. • Improved income for the residents of Karantina and beyond, and more job opportunities, especially for the residents of Al-Khodor sub-neighborhood. • Improved infrastructure and waste management in the slaughterhouse.	• Number of new commercial shops opening in Karantina following the reopening of the slaughterhouse. • Polluting parameters in the environment surrounding the slaughterhouse. • Number of employment opportunities available in the slaughterhouse • Amount of solid waste produced by the slaughterhouse that is properly dumped using sustainable methods. • Number of residents from the Arab Tribes working in the slaughterhouse.	• The Ministry of Environment • The Butchers Union and Livestock Traders Syndicate • The Lebanese Meat Traders • Local and international NGOs involved in Karantina – for example, UNDP • Representatives from the Local Arab Tribes
Impacts/Indirect Benefits		
• Sustainable development and long-term growth in the meat production sector in Lebanon. • Sustained cultural practices associated with the Arab Tribes. • An urban node around the slaughterhouse.	• Number of employees in the meat production sector in Lebanon. • Number of people from the Arab Tribes working in the sector of meat production. • Number of visitors and users of the urban node around the slaughterhouse.	• The Butchers Union and Livestock Traders Syndicate • Local and international NGOs involved in Karantina – for example, UNDP • Representatives from the Local Arab Tribes

AP 10 Rehabilitate the public and fish markets and reform their operations and management systems before they reopen.

Contributes to Strategies:

- **A2.3/ B5.1/ C1.1/ C2.3:** Revitalize three of the economic drivers: the slaughterhouse, the public market, and the fish market
- **B1.3:** Create socio-spatial hubs around the economic drivers in relation to the sea.

Result Chain	Indicators	Potential Stakeholders and Sources of Data
Activities		
• Open the markets to the public.	• A rehabilitation plan for the public and fish markets adopted by a donor agency.	• The Public Authority for Consumer Markets

• Propose a rehabilitation plan for the public market and fish market and the activation of the underutilized urban spaces around them. • Expand the commercial and cultural programs in the markets and introduce recreational spaces. • Design institutional frameworks for the operation and management of both markets.	• An institutional framework for the management of the markets adopted by the Municipality of Beirut and the Public Authority for Consumer Markets. • Markets accessible to the public after implementing the rehabilitation plans.	• The Ministry of Economy and Trade • The Municipality of Beirut • The Ministry of Public Health • The Ministry of Agriculture • The Syndicate of Beirut Fish Vendors
Outputs		
• A fish market that is available for the public. • A public market that could benefit people from Karantina and beyond. • A socio-economic hub with coherent facilities and spatial units.	• Market available on daily or weekly basis. • Number of fishermen/vendors selling their fish in the market. • Number of visitors coming to the hub and markets.	• The Public Authority for Consumer Markets • The Syndicate of Beirut Fish Vendors
Use of Outputs		
• People in Karantina can buy food and goods from nearby markets. • A space for local fishermen and vendors to sell their fish. • Job opportunities available for people in Karantina.	• Number of residents in Karantina who commute to the markets. • Number of fishermen and local vendors benefiting from the space. • Number of job opportunities available in the markets for people in Karantina.	• The Municipality of Beirut • The Public Authority for Consumer Markets • The Syndicate of Beirut Fish Vendors • Local and international NGOs involved in Karantina – for example, UNDP
Outcomes/Direct Benefits		
• Enhanced operation of the fish market. • Higher standards for operation, hygiene, and upkeep for the markets. • Increased job opportunities due to the expansion and reactivation of the markets • Maximized access to a wide variety of products for the residents of Karantina.	• Parameters for international hygiene standards. • Number of job opportunities available after opening the markets. • Number of meetings held between the public institutions involved in the operation of the markets.	• The Syndicate of Beirut Fish Vendors • The Municipality of Beirut • Local and international NGOs involved in Karantina – for example, UNDP

• Reduced duplication and overlaps in the roles of the involved public agencies and institutions. • A strengthened relationship between the public institutions that are involved in the operation of the markets.		
Impacts/Indirect Benefits		
• Improved image and public perception of the markets and, as a result, Karantina. • Increased social connectivity and interest in Karantina from Beirut. • Expanded opportunities for small businesses within Karantina through the public market. • Increased investment opportunities for the Lebanese public and private sectors in Karantina.	• Number of new small businesses opening in Karantina. • Number of visitors to Karantina after the opening of the markets.	• The Municipality of Beirut • Local and international NGOs involved in Karantina – for example, UNDP
AP 11 Develop a multi-purpose complex for public services on the municipal lot, which includes a public school, an affordable family clinic, and a sports and recreational facility.		
Contributes to Strategies: • **A3.1/D4.2:** Introduce services and facilities that are lacking in Karantina such as schools, sports facilities, and affordable clinics. • **B8.1/ D3.3/ E5.1:** Adopt an inclusive and integrated design approach while upgrading and rehabilitating existing public spaces and introducing shared facilities.		
Result Chain	**Indicators**	**Potential Stakeholders and Sources of Data**
Activities		
• Design a multi-purpose complex for public services. • Subdivide the municipal lot to use it for the complex. • Implement the design of the complex. • Set up a management plan to operate the complex and delegate it to a potential NGO.	• The design of the complex submitted to the donor agency with a subdivision plan for the municipal lot. • A construction permit given to the project. • Implementation of the project. • A management plan adopted by an NGO. • Number of meetings between a donor agency and a design consultation firm.	• The Ministry of Social Affairs • The Ministry of Public Health • The Ministry of Education and Higher Education • The Ministry of Youth and Sports • Local and international NGOs involved in Karantina – for example, UNDP • The Municipality of Beirut

Outputs		
• A multi-purpose complex in Karantina. • A management plan for operating the complex.	• A multi-purpose complex established in Karantina to include a public school, an affordable family clinic, and a sports and recreational facility. • A management plan for operating the complex.	• The Municipality of Beirut • Local and international NGOs involved in Karantina – for example, UNDP
Use of Outputs		
• Students in Karantina between the ages of 10 and 15 can have access to the elementary public school. • Families in Karantina can have access to healthcare services through the family clinic. • Youth and children in Karantina can have access to the multi-purpose playgrounds for recreational activities.	• Number of students enrolled in the elementary public school. • Number of families visiting the clinic every month. • Number of monthly visitors to the sports center.	• Local and international agencies involved in education and health – for example, UNICEF, UNRWA, and ESCWA • Local and international NGOs involved in Karantina – for example, UNDP
Outcomes/Direct Benefits		
• Increased access to leisure activities. • Access to elementary education for around 200 school-aged children in Karantina. • Access to affordable healthcare.	• Number of students enrolled in the elementary public school. • Number of families visiting the clinic every month. • Number of monthly visitors to the sports center.	• Local and international agencies involved in education and health – for example, UNICEF, UNRWA, and ESCWA • Local and international NGOs involved in Karantina – for example, UNDP
Impacts/Indirect Benefits		
• Increased social cohesion between the residents of Karantina. • Increased development in the area around the complex.	• Number of social events and gatherings between the residents of Karantina. • Number of development projects in the area after the implementation of the complex.	• Local and International NGOs involved in Karantina – for example, UNDP • The Municipality of Beirut

AP 12 Devise a management plan for reopening and maintaining the public park and open spaces in Karantina.		
Contributes to Strategies: • **A3.2/ B8.2:** Facilitate access to existing public spaces, including the public park, and increase their number • **B8.1/ D3.3/ E5.1:** Adopt an inclusive and integrated design approach while upgrading and rehabilitating existing public spaces and introducing shared facilities.		
Result Chain	**Indicators**	**Potential Stakeholders and Sources of Data**
Activities		
• Form a team of experts to devise a plan to manage the public park and open spaces. • Train a team of staff at the Municipality of Beirut on ways to maintain public spaces.	• Number of meetings held between the experts and the Municipality of Beirut.	• The Municipality of Beirut • Local and international NGOs involved in Karantina – for example, UNDP
Outputs		
• A management plan set to manage the public park and open spaces. • A team of trained staff members at the Municipality of Beirut who are equipped with skills to maintain public spaces.	• A plan submitted to the Municipality of Beirut for implementation.	• The Municipality of Beirut
Use of Outputs		
• The Municipality of Beirut adopting the plan and reopening the public park.	• Number of parks and spaces open to the public in Karantina.	• The Municipality of Beirut • Local and international NGOs involved in Karantina – for example, UNDP • Media outlets
Outcomes/Direct Benefits		
• Opening of the garden and public spaces. • Better quality public space. • Enhanced security in public spaces. • Community engagement in the management of gardens and public spaces.	• Number of visitors to the gardens and public spaces. • Number of monthly/ yearly maintenance campaigns. • Number of security members in the public spaces. • Number of lighting poles in the gardens and public spaces. • Number of Karantina residents involved in the management plan of the gardens and public spaces.	• Local NGOs involved in public spaces – for example, Nahnoo and Public Works • The Municipality of Beirut • Local and international NGOs involved in Karantina – for example, UNDP

Impacts/Indirect Benefits		
• A new model for collaboration between the Municipality of Beirut and people in Karantina. • Better livelihood of people in Karantina.	• Number of residents in Karantina who believe that the opening of the gardens and public spaces had a positive impact on their lives. • The collaboration model adopted in other contexts.	• Local NGOs involved in public spaces – for example, Nahnoo and Public Works

AP 13 Design and implement an open space network that connects, upgrades, and expands on the existing spaces in Karantina.

Contributes to Strategies:

- **A3.2/ B8.2:** Facilitate access to existing public spaces, including the public park, and increase their number
- **B1.1/ D5.1:** Re-stitch Mar Mikhael with the southern side of Karantina through a pedestrian network across the highway.
- **B2.1:** Reclaim Karantina's old coastal line as a green promenade and revive it as natural landscape heritage.
- **B2.2/ B4.3/ D5.3:** Extend the sea promenade from the Beirut Central District to Karantina.
- **B3.1/ D5.5:** Establish points of connection with city-scale and wider mobility modes (buses and taxis).
- **B8.1/ D3.3/ E5.1:** Adopt an inclusive and integrated design approach while upgrading and rehabilitating existing public spaces and introducing shared facilities.
- **E3.4:** Reduce the negative impact of the highway as a source of noise and air pollution.

Result Chain	Indicators	Potential Stakeholders and Sources of Data
Activities		
• Form a design consultative team to design the open space network that is pedestrian-friendly, safe, inclusive, and well-serviced. • Implement the open space network.	• A consultative team formed to design the open space network. • Number of construction permits given to implement the open space network.	• The Ministry of public works and • Transport The Municipality of Beirut
Outputs		
• A network of well-serviced streets and public spaces that connect the three sub-neighborhoods in Karantina. • A 1 kilometer green strip along the Charles Helou Boulevard. • A 1.7 kilometer green corridor along the coastal line that provides recreational facilities. • A municipal green space on the boulevard.	• Area of implemented green strips and public spaces in square meters [3]. • Number of landscape heritage sites identified and integrated within the open space network.	• The Municipality of Beirut • The Beirut Urban Observatory by the Beirut Urban Lab • Local and international NGOs involved in Karantina – for example, UNDP Directorate General of Antiquities • Local and international agencies concerned about cultural heritage – for example, UNESCOt

3 From the proposals discussed in AP 13: the Charles Helou Boulevard, the Coastline Corridor, the Estuary Park, the Open Space Network, and the Garden on Charles Helou Highway.

• A public park at the Beirut River estuary. • Landscape heritage sites integrated within the open space network.		
Use of Outputs		
• Local communities using the open spaces for gatherings, social events, and recreation. • Visitors from outside Karantina using the open spaces.	• Number of visitors and residents using the open spaces. • Number of visitors and residents engaged in recreational and social activities.	• Local NGOs involved in public spaces – for example, Nahnoo and Public Works • Local and international NGOs involved in Karantina – for example, UNDP
Outcomes/Direct Benefits		
• New spaces are accessible. • Diversified uses of public space which increase the number of visitors to the site. • Improved access to facilities and amenities. • Reduction in speed of cars. • Reduction in the number of fatalities due to pedestrians crossing in and outside Karantina. • New employment opportunities.	• Average locals and tourists visiting the new open spaces. • Number of activities available in the open space network. • Number of new employment opportunities • Number of fatalities due to pedestrian crossing.	• The Ministry of tourism • Local and international NGOs involved in Karantina – for example, UNDP • NGOs involved in local road safety – for example, Yasa and KUNHA
Impacts/Indirect Benefits		
• Enhanced physical and mental health for the residents of Karantina. • Better quality of life for the residents of Karantina. • Sustaining landscape heritage and culturally significant features and practices. • Improving the visual quality of Karantina. • Reducing noise pollution. • Catalyzing new developments.	• Number of residents/ visitors who believe that being in, viewing, or having access to the new spaces has improved their physical and mental health. • Number of landscapes designated as heritage. • Area of greenery in Karantina in square meters. • Calculation of levels of noise pollution. • Number of new development projects established in Karantina. • Number of new businesses established around the open space network.	• Local NGOs involved in public spaces – for example, Nahnoo and Public Works • Local and International agencies working on cultural heritage – for example, UNESCO • The Beirut Urban Observatory by the Beirut Urban Lab • The Beirut Built Environment Database by the Beirut Urban Lab

AP 14 Devise and implement a parcelization plan that subdivides and reprograms the municipal lot to enhance connectivity and public services in Karantina.

Contributes to Strategies:

- **A3.2/ B8.2:** Facilitate access to existing public spaces, including the public park, and increase their number
- **B1.2/ D5.2:** Increase the permeability of the edges of Karantina with the city.
- **B4.2/ D1.2:** Subdivide the municipal lot and integrate it into plans for the development of Karantina.

Result Chain	Indicators	Potential Stakeholders and Sources of Data
Activities		
• Assign a consultancy firm to design a subdivision plan for the municipal lot with activities and additional facilities.	• A consultancy firm is delegated the task of providing a subdivision plan for the municipal lot. • Number of meetings held between the Municipality, the Directorate General of Urban Planning, and the local consultancy office.	• The Municipality of Beirut • The Directorate General of Urban Planning
Outputs		
• A subdivision plan of the municipal lot with circulation and additional facilities.	• A subdivision plan of the municipal lot submitted to the Ministry of Public Works and Transportation. • A new decree that adopts the subdivision plan and puts it into use.	• The Ministry of Public Works and Transportation • The Municipality of Beirut • The Directorate General of Urban Planning
Use of Outputs		
• The Municipality of Beirut implements the subdivision plan.	• Subdivided lots added to the parcelization plan. • Number of new facilities built on the lot.	• Real estate agencies in Beirut • The Municipality of Beirut
Outcomes/Direct Benefits		
• Enhanced accessibility into and within Karantina, with more than one crossing option. • An increase in the number of affordable housing units. • Open spaces designated for recreation.	• Number of crossings into Karantina through the lot. • Number of development projects implemented on the subdivided lots. • Number of affordable housing units available in the new development projects. • Percentage of the lot designated as open spaces for recreation. • Number of new public services available to the residents.	• The Municipality of Beirut • Real estate agencies in Beirut • The City of Tenants Platform by the Beirut Urban Lab • Local and international NGOs involved in Karantina – for example, UNDP

Impacts/Indirect Benefits		
• Enhanced socio-cultural vitality. • Catalyzing new developments.	• Number of social and cultural events taking place in the new open spaces. • Number of development projects in the area after the subdivision of the lot.	• Local and international NGOs involved in Karantina – for example, UNDP • The Municipality of Beirut • The Beirut Urban Observatory by The Beirut Urban Lab
AP 15 Amend the Building Law to introduce international standards for inclusive design, particularly for people with physical challenges and disabilities.		
Contributes to Strategies: • **A5.1:** Adopt an inclusive design approach when rehabilitating existing buildings or designing new housing units.		
Result Chain	**Indicators**	**Potential Stakeholders and Sources of Data**
Activities		
• Form a team of experts to propose amendments in the Building Law. • Draft a proposal to amend the building law.	• Number of meetings held between the team, Directorate General of Urban Planning, the Order of Engineers and Architects, and parliamentary representatives.	• The Directorate General of Urban Planning • The Order of Engineers and Architects in Beirut
Outputs		
• A proposal to amend the Building Law submitted to the Parliamentary Committee.	• Number of Parliamentary Committee meetings to discuss amending the Building Law.	• The Order of Engineers and Architects in Beirut • The official Gazette Journal • Media outlets
Use of Outputs		
• Amendments in the Building Law.	• Parliamentary Committees adopting the amendments in the Building Law. • A voting session held in the Parliament to amend the Building Law. • The amended Building Law is published in the official Gazette Journal.	• The Order of Engineers and Architects in Beirut • The official Gazette Journal • Media outlets
Outcomes/Direct Benefits		
• New developments built according to standards of inclusive design.	• Number of buildings accessible for elderly and physically challenged people.	• The Beirut Built Environment Database by the Beirut Urban Lab

• Buildings rehabilitated according to inclusivity standards which accommodate the special needs of elderly people, people with physical mobility challenges or disabilities, and people who are visually impaired.	• Number of buildings built according to the new standards.	• Local NGOs who are involved in advocacy for people with special needs – for example, the Lebanese Union for People with Physical Disabilities
Impacts/Indirect Benefits		
• More inclusive environment. • Enhanced well-being of people with special needs.	• Number of people with physical challenge whose lives has been positively impacted by the new law.	• Local NGOs that are involved in advocacy for people with special needs (ex. Lebanese Union for People with Physical Disabilities (LUPD)
AP 16 Propose an addendum to the Planning Law that further guides and regulates existing and future land uses and developments.		
Contributes to Strategies: • **A6.1:** Regulate the transformations in the use of residential buildings. • **D2.1:** Regulate development in the residential and industrial areas of Karantina.		
Result Chain	**Indicators**	**Potential Stakeholders and Sources of Data**
Activities		
• Form a team of experts to proposed addendum to the Urban Planning Law. • Draft a proposal to amend the Urban Planning Law.	• Number of meetings held between experts to discuss the Urban Planning Law.	• The Directorate General of Urban Planning • The Order of Engineers and Architects in Beirut
Outputs		
• A proposed addendum in the Urban Planning Law.	• The Directorate General of Urban Planning approving the proposed addendum. • The proposal discussed in the Parliamentary Committee, and then presented to the parliament.	• The Directorate General of Urban Planning • The Order of Engineers and Architects in Beirut
Use of Outputs		
• Enactment of the addendum in the Urban Planning Law after the parliament votes in favor of the addendum.	• A voting session held in the parliament to decide on the addendum. • The Urban Planning Law with the addendum is published in the official Gazette Journal.	• The official Gazette Journal • Media outlets • The official Gazette Journa • l Media outlets

Outcomes/Direct Benefits		
• Regulated developments in the residential and industrial areas in Karantina. • Regulated transformations in the use of residential buildings. • The protection of tenants from rent hikes and threats of eviction. • Less pressure on the existing affordable housing stock from the competition with businesses. • Limited encroachment of businesses on the three residential sub-neighborhoods. • The protection of tenants from rent hikes and threats of eviction.	• Number of development projects taking place in the residential and industrial areas in Karantina after the enactment of the Urban Planning Law with the addendum. • Percentage of affordable housing units in the total housing stock. • Number of residential buildings transformed to other use after the enactment of the Urban Planning Law with the addendum. • Number of businesses open in the three residential sub-neighborhoods. • Number of tenants threatened with eviction. • Number of tenants evicted since the enactment of the Urban Planning Law with the addendum.	• The Beirut Urban Observatory by the Beirut Urban Lab • The Beirut Built Environment Database by the Beirut Urban Lab • The City of Tenants Platform by the Beirut Urban Lab • The City of Tenants Platform by the Beirut Urban Lab • The Housing Monitor by Public Works
Impacts/Indirect Benefits		
• Reduction in the threats of gentrification and displacement.	• Number of tenants threatened with eviction. • Number of tenants evicted since the enactment of the Urban Planning Law with the addendum.	• The Housing Monitor by Public Works • The City of Tenants Platform by the Beirut Urban Lab

AP 17 Set up a monitoring and municipal taxation system for buildings that are not regularly maintained to ensure public safety and limit overcrowding.

Contributes to Strategies:
- **A8.1/E1.4:** Regulate the density of people per housing unit to counter overcrowding.
- **D3.1/E1.3:** Provide a legal enforcement measure for building rehabilitation.

Result Chain	Indicators	Potential Stakeholders and Sources of Data
Activities		
• Establish an office in the engineering unit in the Municipality of Beirut that monitors building maintenance. • Form a team of experts to develop a municipal taxation system for buildings.	• A decision by the Governor that includes establishing the new office in the engineering unit. • Number of meetings between the team and the Municipality of Beirut to develop the taxation system.	• The Municipality of Beirut

• Recruit staff with the necessary expertise.	• Number of staff recruited by the Municipality of Beirut for this purpose.	
Outputs		
• A monitoring unit in the Municipality of Beirut responsible for the safety of buildings. • A taxation system that the Municipality of Beirut can adopt.	• The presence of the monitoring unit and the taxation system.	• The Municipality of Beirut
Use of Outputs		
• The Municipality can tax the owners of buildings not conducting regular maintenance.	• Number of buildings taxed for not keeping up with required maintenance levels.	• The Municipality of Beirut
Outcomes/Direct Benefits		
• Improved conditions of residential buildings. • Improved public safety and security measures for private buildings. • Less overcrowding in residential units and improvements in the health and safety of the residents.	• Number of buildings with improved conditions. • Number of buildings with enhanced public safety and security measures. • Number of household members per unit.	• The Beirut Urban Observatory by the Beirut Urban Lab • The Precarious Lives Platform by the Beirut Urban Lab • The Housing Monitor by Public Works Studio
Impacts/Indirect Benefits		
• Enhanced livelihood of people in Karantina.	• Number of residents who believe their lives were enhanced in Karantina.	• Local and international NGOs involved in Karantina – for example, UNDP
AP 18 Create a registry platform that matches donors with property owners for building rehabilitation.		
Contributes to Strategies: • **A8.2/E1.1:** Offer financial packages and incentives to support the landlords in rehabilitating their residential buildings and maintain the stock of affordable housing units. • **D3.2/E1.2:** Channel funds through donors to vulnerable landlords for building renovation.		
Result Chain	**Indicators**	**Potential Stakeholders and Sources of Data**
Activities		
• Assign a consultant to develop the information system platform • Form a group of professionals by NGOs to run the platform.	• Number of meetings held between the team members working on the establishment of a platform that matches donors with property owners for building rehabilitation. • Number of professionals recruited to run the platform.	• Local and international NGOs involved in Karantina – for example, UNDP

Outputs		
• A platform that is available to match donors with the owners of damaged properties needing rehabilitation.	• The platform is launched and available online.	• Local and international NGOs involved in Karantina – for example, UNDP
Use of Outputs		
• People affected by the Beirut Port blast can report the damage to their households. • Platform administrators can connect the owners of damaged properties needing rehabilitation to the donors.	• Number of owners of damaged properties reporting their damages to the platform. • Number of donors connected to the platform.	• The local NGO administrating the platform
Outcomes/Direct Benefits		
• Acceleration of the reconstruction process. • More efficient construction processes and repairs. • Improvements in the conditions of buildings and their future maintenance.	• Number of buildings repaired every month through the platform.	• The local NGO administrating the platform • The Beirut Urban Observatory by the Beirut Urban Lab
Impacts/Indirect Benefits		
• Enhanced image of Karantina and increased investments in the area.	• Number of development projects taking place in Karantina.	• The Beirut Built Environment Database by the Beirut Urban Lab

AP 19 Form a local advocacy group that supports donor agencies working on the reconstruction projects of the port to reconnect Karantina with the sea.

Contributes to Strategies:

- **B2.3/D5.4:** Relink Karantina to the sea through the port.

Result Chain	Indicators	Potential Stakeholders and Sources of Data
Activities		
• Conduct meetings between potential urban planners and designers, activists, and politicians toward the formation of an advocacy group.	• Number of meetings held towards the formation of an advocacy group.	• Local NGOs involved in public spaces – for example, Nahnoo and Public Works
Outputs		
• A coordinating body that is committed to advocating for public access to the Beirut Port.	• An advocacy team is formed.	• Local NGOs involved in public spaces – for example, Nahnoo and Public Works

Use of Outputs		
• Conduct meetings that engage different stakeholders involved or concerned with the Beirut Port reconstruction. • Prepare a counterproposal for the reconstruction of the Beirut Port, one that designates part of the Beirut Port as public space.	• Number of meetings held by the coordinating body with the different stakeholders. • Counterproposals prepared for the reconstruction of the Beirut Port.	• The Beirut Urban Lab • The Ministry of Public Works and Transportation • The Beirut Port Authority • Local NGOs involved in public spaces – for example, Nahnoo and Public Works • Media outlets
Outcomes/Direct Benefits		
• Raise public awareness about the importance of the Beirut Port in urban life.	• Number of public presentations, hearings, and meetings held to disseminate information and raise awareness about the Beirut Port reconstruction.	• Local NGOs involved in public spaces – for example, Nahnoo and Public Works • Media outlets
Impacts/Indirect Benefits		
• Engage the public with advocacy efforts related to other urban issues.	• Number of public presentations, hearings, and meetings held to raise awareness about other urban issues.	• Local NGOs involved in public spaces – for example, Nahnoo and Public Works • Media outlets

AP 20 Conduct a transportation study in Karantina.		
Contributes to Strategies: • **B3.1/ D5.5:** Establish points of connection with city-scale and wider mobility modes (buses, taxis, etc.). • **E3.1.** Manage the traffic of trucks, their access, and parking in the area.		
Result Chain	**Indicators**	**Potential Stakeholders and Sources of Data**
Activities		
• Assign a consultative body to conduct a transportation study.	• A consultant is assigned to conduct the transportation study.	• The Ministry of Public Works and Transportation • Local and international NGOs involved in Karantina – for example, UNDP
Outputs		
• A transportation plan that connects Karantina to the rest of Beirut and its surrounding.	• A transportation plan that includes a proposal for connection points, bus stops, a traffic scheme, and truck parking spaces submitted to the Ministry of Public Works and Transportation.	• The Ministry of Public Works and Transportation • Local and international NGOs involved in Karantina – for example, UNDP

Use of Outputs		
• The relevant stakeholders can use the plan to advocate for public transport..	• Number of NGOs and donor agencies using the plan to advocate for public transport.	• The Ministry of Public Works and Transportation • Local and international NGOs involved in Karantina – for example, UNDP
Outcomes/Direct Benefits		
• A solution for the transportation issues in Karantina.	• Number of issues resolved through the study – for example, the movement of trucks, bus stops, and street parking.	• Local and international NGOs involved in Karantina – for example, UNDP
Impacts/Indirect Benefits		
• Triggering a conversation about the importance of public transportation in Beirut.	• Number of public presentations/ hearings/meetings held to raise awareness about public transportation.	• Local and International NGOs involved in Karantina (ex. UNDP)

AP 21 Develop protocols for cooperation, networking, and the transfer of expertise and knowledge between the different businesses in Karantina.

Contributes to Strategies:

- **C5.1/B5.2/ B7.1:** Network, protect, and strengthen the sustainable agility and capacity of port-related and other industrial businesses.

Result Chain	Indicators	Potential Stakeholders and Sources of Data
Activities		
• Set up a public-private partnership or a non-profit initiative that can act as an intermediary between the businesses in Karantina and promote collaborative plans. • Organize social events to initiate partnerships. • Devise a program for the recruitment and training of intermediaries and networking brokers.	• Number of meetings held to set up the initiative and collaborative plans. • Number of organized social events.	• Local and international NGOs involved in Karantina – for example, UNDP • Entrepreneurship organizations that support businesses – for example, Berytech
Outputs		
• An initiative that promotes networking and collaboration between businesses.	• Launch of the initiative.	• Local and international NGOs involved in Karantina – for example, UNDP • Entrepreneurship organizations that support businesses – for example, Berytech

Use of Outputs		
• Regular meetings to exchange knowledge of business techniques and solutions to overcome problems. • Business owners recruited and trained through the program.	• Number of businesses subscribed to the program.	• Local and international NGOs involved in Karantina – for example, UNDP • Entrepreneurship organizations that support businesses – for example, Berytech
Outcomes/Direct Benefits		
• Collaboration between the businesses in Karantina. • Improved economic connectivity to and within Karantina. • Strengthened communication and coordinated action among the businesses in Karantina. • Up-scaled and intensified economic activities. • Increase in business efficiency and reductions in costs. • Improved business capacities to overcome challenges.	• Number of businesses signing a collaboration contract between each other. • Number of new businesses in Karantina. • Number of employees in the businesses in Karantina. • Number of coordination meetings between the businesses in Karantina. • Number of economic activities pursued by businesses in Karantina.	• Local and international NGOs involved in Karantina – for example, UNDP • Entrepreneurship organizations that support businesses – for example, Berytech
Impacts/Indirect Benefits		
• A pilot model to enhance collaboration between the different businesses on a national scale.	• Number of businesses adopting this collaborative model in different regions in Lebanon.	• Entrepreneurship organizations that support businesses – for example, Berytech

AP 22 Design and build a community center in a strategic location that is equally accessible to the residents of the three sub-neighborhoods.		
Contributes to Strategies: • **B8.1/ D3.3/ E5.1:** Adopt an inclusive and integrated design approach while upgrading and rehabilitating existing public spaces and introducing shared facilities.		
Result Chain	**Indicators**	**Potential Stakeholders and Sources of Data**
Activities		
• Assign a design consultant to produce a design for the community center. • Conduct meetings and workshops with the different community groups in Karantina to involve them in the design and decision-making process.	• A design proposal for the community center submitted to the Municipality of Beirut and donor agencies. • Number of meetings conducted with the different community groups to develop the design.	• The Municipality of Beirut • NGOs involved in the development of the community center – for example, Design for Communities D4C

• Implement the design. • Assign an NGO to monitor the center.	• A construction permit given by the Municipality of Beirut to implement the design. • A contract signed with an NGO to monitor the community center.	
Outputs		
• A community center for people in Karantina.	• The establishment of the community center in Karantina.	• NGOs involved in the development of the community center – for example, Design for Communities D4C
Use of Outputs		
• A new social space for people in Karantina where they can cultivate a sense of communal belonging. • Residents in Karantina developing their professional skills through income-generating activities. • Residents are provided with programs and capacity-building workshops that help promote professional skills and specialties through income-generating activities such as the production and marketing of local crafts. • Provide therapy support sessions to improve the mental health and self-esteem of the vulnerable groups in Karantina – primarily, people who were directly or indirectly impacted by the Beirut Port blast.	• Daily commutes to the community center. • Number of residents signing up to workshops in the community center. • Number of programs, capacity-building workshops, and therapy sessions provided at the community center	• NGOs involved in the development of the community center – for example, Design for Communities D4C
Outcomes/Direct Benefits		
• Improvements in the local economy in Karantina by building the capacities of the residents and providing them with income-generating activities. • Better livelihood and well-being of the residents in Karantina	• Number of residents noting an increase in their income after the establishment of the community center. • Number of residents in Karantina noting an improvement in their mental health, especially those affected by the Beirut Port blast.	• NGOs involved in the development of the community center – for example, Design for Communities D4C • Local and international NGOs involved in Karantina – for example, UNDP

Impacts/Indirect Benefits		
• Restored trust in local authorities such as the Municipality of Beirut.	• Number of residents in Karantina who believe that their trust in the Municipality of Beirut was restored.	• Local and International NGOs involved in Karantina – for example, UNDP

AP 23 Expand financial support opportunities and institute mechanisms to link these opportunities with micro businesses in Karantina.		
Contributes to Strategies: • **C3.1/C4.1:** Offer financial incentives to micro and specialized businesses.		
Result Chain	**Indicators**	**Potential Stakeholders and Sources of Data**
Activities		
• Set up business consultancy clinics that can identify financial opportunities and link them to diverse businesses. • Set up a plan to improve the outreach of the existing microfinance institutions.	• Number of meetings held between business consultants and actors involved in establishing the consultancy clinics. • Number of meetings held between actors involved in creating plans to improve the capacities of the microfinance institutions.	• Private consultancy offices involved in work in Karantina • Microfinance institutions – for example, LMFA, Kafalat, and ESFD • The Ministry of Finance • The Investment Development Authority of Lebanon • The Central Bank of Lebanon • The Ministry of Economy and Trade
Outputs		
• Consultancy clinics assessing opportunities for networking between the businesses in Karantina. • A plan to expand the outreach of the microfinance institutions in Karantina.	• Number of business consultancy clinics operating in Karantina. • A plan to improve the capacities of the microfinance institutions.	• Private consultancy offices involved in work in Karantina • Microfinance institutions – for example, LMFA, Kafalat, and ESFD • The Ministry of Finance • The Investment Development Authority of Lebanon • The Central Bank of Lebanon • The Ministry of Economy and Trade
Use of Outputs		
• Match the micro-enterprises in Karantina with the appropriate funding opportunities to expand their operations.	• Number of micro-enterprises matched through the clinic. • Number of businesses benefiting from a loan though the microfinance institutions.	• Private consultancy offices involved in work Karantina • Microfinance institutions – for example, LMFA, Kafalat, and ESF

• Businesses benefiting from loans through the microfinance institutions.		• Microfinance institutions – for example, LMFA, Kafalat, and ESFD • The Ministry of Finance • The Investment Development Authority of Lebanon • The Ministry of Economy and Trade
Outcomes/Direct Benefits		
• Increased outreach capacities of microfinance institutions in Karantina. • Decreased financial burdens on craft manufacturers and businesses in Karantina.	• Number of businesses in Karantina aware of and registered with the microfinance institutions. • Number of craft businesses and manufacturers benefiting from the programs of the microfinance institutions.	• Private consultancy offices involved in work Karantina • Microfinance institutions – for example, LMFA, Kafalat, and ESFD
Impacts/Indirect Benefits		
• An increase in the financial capacities of micro enterprises. • An expansion in the fixed assets of the micro enterprises. • Sustained crafts businesses and their cultural productions. • Upscaled operations of micro enterprises and a larger number of job opportunities. • Karantina business owners and their families are empowered and supported to ensure their success. • Sustained socio-spatial practices and social connectivity associated with micro enterprises. • Sustained business diversity in Karantina. • Enhanced operations and networking opportunities for microfinance institutions.	• Number of micro enterprises with expanded fixed assets. • Number of businesses in Karantina with increased financial capacities. • • Number of employees in the micro-enterprises in Karantina. • Number of job opportunities in the micro-enterprises in Karantina. • Number of business owners accessing financial support or opportunities for capacity building. • Number of socio-spatial practices associated with micro-enterprises. • Number of crafts businesses operating in Karantina. • Number of typologies of businesses operating in Karantina. • Amount of loans and financial support given by microfinance institutions.	• Private consultancy offices involved in work Karantina • Microfinance institutions – for example, LMFA, Kafalat, and ESFD • • Local and international NGOs involved in Karantina – for example, UNDP

AP 24 Set up offices in the Municipality of Beirut to organize and promote cultural events in Karantina, in partnership with the private sector.		
Contributes to Strategies: • **C6.1:** Activate the open spaces in Karantina to host occasional, weekly, monthly, and annual cultural and economic festivals.		
Result Chain	**Indicators**	**Potential Stakeholders and Sources of Data**
Activities		
• Form a team to set up a specialized office in the Municipality of Beirut to organize and promote cultural events in Karantina. • Hold meetings between the Municipality of Beirut and the private sector to set up public-private partnerships.	• Number of meetings held in the Municipality of Beirut to establish the specialized office. • Number of meetings between the Municipality of Beirut and actors from the private sector to set up public-private partnerships.	• The Municipality of Beirut • Relevant private actors and institutions
Outputs		
• A Department of Cultural Activities that enhances the role of the Municipality of Beirut as a catalyst of cultural vitality.	• A decision by the Governor stating the establishment of the Department of Cultural Activities in the Municipality of Beirut.	• The Municipality of Beirut • Relevant private actors and institutions • Media outlets
Use of Outputs		
• The Municipality of Beirut organizing social and cultural events in Karantina. • The different communities in Karantina contributing to local cultural development efforts.	• Number of cultural events organized in Karantina. • Number of residents contributing to the organization of cultural events in Karantina.	• The Municipality of Beirut • Relevant private actors and institutions • Media outlets
Outcomes/Direct Benefits		
• Active open and shared spaces in Karantina for cultural events. • Increase in the number and diversity of cultural practices in Karantina.	• Number of cultural events organized in Karantina. • Types of cultural practices taking place in Karantina.	• The Municipality of Beirut
Impacts/Indirect Benefits		
• Generate interest in Karantina as a destination for cultural and artistic activities.	• Number of residents outside Karantina visiting for cultural events	• The Municipality of Beirut • Local and international NGOs involved in Karantina – for example, UNDP

• A more vibrant local economy with an increased pedestrian flow and exposure to local businesses. • An enhanced image of Karantina as a cultural hub.	• Number of visitors buying products from local businesses. • Number of cultural events organized in Karantina.	

AP 25 Establish a design hub in Karantina with shared resources and facilities for rising young designers to launch their careers and serve as a catalyst for further cultural development.

Contributes to Strategies:

- **C6.2:** Engage artists and designers to work, network, and complement the existing crafts and the activities of industries in Karantina.

Result Chain	Indicators	Potential Stakeholders and Sources of Data
Activities		
• Assign a consultant to craft a design proposal and implement a design hub in Karantina. • Assign a strategic location in Karantina for building the design hub. • Implement the design hub.	• A design proposal of the hub submitted to the donor agency and Municipality of Beirut. • A construction permit given by the Municipality of Beirut to implement the design.	• The Municipality of Beirut • The involved donor agency – for example, UN-Habitat
Outputs		
• A design hub that can facilitate innovation, collaboration, and experimentation.	• The establishment of the design hub in Karantina.	• The Municipality of Beirut • The involved donor agency – for example, UN-Habitat
Use of Outputs		
• Designers and artists can use the space in the design hub for working and for exhibitions. • Young innovators can use machinery and tools to conduct experiments and build prototypes.	• Number of designers and artists using the space. • Number of innovators using the equipment provided in the design hub. • Number of design innovations produced in the design hub.	• The involved donor agency – for example, UN-Habitat
Outcomes/Direct Benefits		
• Fostering collaborations between designers and artists for shared cultural production. • Re-engaging designers and artists in everyday life in Karantina through their work and practices.	• Number of designers buying daily products from businesses in Karantina. • Number of residents in Karantina engaged with the work of the designers and artists.	• The involved donor agency – for example, UN-Habitat • Local and international NGOs involved in Karantina – for example, UNDP

• Supporting emerging artists and designers by providing them with shared resources that are affordable, such as labs, and workspaces. • Offering businesses and the residents of Karantina opportunities to interact and collaborate with designers and artists by using the proposed design hub for workshops to advance their work or skill sets.	• Number of artists and designers benefiting from the design hub. • Number of collaborations between artists who emerged through the design hub. • Number of residents joining the capacity building workshops at the design hub.	
Impacts/Indirect Benefits		
• An expansion in cultural and artistic practices in Karantina. • An increase in the number of established arts, crafts, and designs that operate outside Karantina. • An increase in incoming visitors from across Beirut to Karantina. • New job opportunities that prioritize the residents of Karantina.	• Number of new design and art businesses opening in Karantina. • Number of established arts, crafts, and designs operating outside Karantina after the establishment of the design hub. • Number of visitors to Karantina after the establishment of the design hub. • Number of job opportunities available for the residents in Karantina.	• The involved donor agency – for example, UN-Habitat • Local and international NGOs involved in Karantina – for example, UNDP

AP 26 Design and implement an integrated sewage and wastewater management plan for Karantina.

Contributes to Strategies:

- **D4.1/E4.1:** Upgrade and improve the performance and management of the existing infrastructural networks to respond to density demands and adopt emerging technologies.

Result Chain	Indicators	Potential Stakeholders and Sources of Data
Activities		
• Activities Assign a private firm to draft a wastewater management plan for Karantina. • An implementation plan including and implementation timeline and financing scheme. • Raise funds for the implementation of the wastewater management plan.	• A memorandum of understanding signed with private firm to conduct a study on the wastewater system in Karantina and propose a plan. • Number of meetings held between the relevant stakeholders to develop the plan.	• The Municipality of Beirut • The Council for Development and Reconstruction • The Ministry of Energy and Water • The Beirut & Mount Lebanon Water Establishment • The Ministry of Public Works and Transportation • The involved donor agency – for example, UN-Habitat

Outputs		
• A wastewater management plan for Karantina that identifies the appropriate approach and the needed interventions.	• A waste management plan is submitted to the Ministry of Energy and Water, the Municipality of Beirut, and the water establishment with an implementation plan.	• The Municipality of Beirut • The Council for Development and Reconstruction • The Ministry of Energy and Water • The Beirut & Mount Lebanon Water Establishment • The involved donor agency – for example, UN-Habitat
Use of Outputs		
• The Municipality of Beirut collaborates with private firms and donors to implement the study. • A donor agency adopting and implementing the plan.	• Number of meetings between the Municipality of Beirut and private firms and donors toward the implementation of the plan. • A memorandum of understanding signed with the contracting firm to implement the design.	• The Municipality of Beiruts • The involved donor agency – for example, UN-Habitat
Outcomes/Direct Benefits		
• Upgraded sewage infrastructure to accommodate growing local needs in Karantina. • The protection of the Beirut River from the pollutants in the sewage water	• Length of repaired and redirected sewage lines in meters. • Water pollution parameters in the Beirut River.	• The Municipality of Beirut • The Beirut & Mount Lebanon Water Establishment • The Ministry of Environment
Impacts/Indirect Benefits		
• Reduced damage caused by runoff flooding. • Enhanced overall quality of living. • A model for wastewater management in Beirut.	• Costs of repairing the sewage system compared to previous damages caused by flooding. • Number of residents who believe their lives have been enhanced after the implementation of the plan. • Number of municipalities using the principles of the plan and applying them in their contexts.	• The Municipality of Beirut • The Council for Development and Reconstruction • The Ministry of Public Works and Transport • Local and international NGOs involved in Karantina – for example, UNDP • The Ministry of Energy and Water • The Beirut & Mount Lebanon Water Establishment

AP 27 Design and implement alternative energy and greening solutions.

Contributes to Strategies:

- **D4.1/ E4.1:** Upgrade and improve the performance and management of the existing infrastructural networks to respond to density demands and adopt emerging technologies.
- **E3.2:** Regulate private generators, particularly the ones that are placed in proximity to residential buildings.
- **E3.3:** Empower the Municipality of Beirut to monitor and coordinate efforts to protect the environment in Karantina.

Result Chain	Indicators	Potential Stakeholders and Sources of Data
Activities		
• Assign a private firm to conduct a study and design a plan that identifies alternative energy solutions for Karantina. • Set up public-private partnerships to implement the study. • Raise funds for the implementation of the project.	• Number of meetings held between experts, private entities, and public agencies toward conducting the study. • Memorandum of understanding between the funding agency and the private company. • Number of meetings held with donors to secure funds for implementing the plan.	• The Ministry of Energy and Water • The Municipality of Beirut • Private companies specialized in alternative energy solutions – for example, Ecodit • Local and international NGOs involved in Karantina – for example, UNDP
Outputs		
• A plan that identifies alternative energy solutions for Karantina.	• A plan submitted to the Ministry of Energy and Water and the funding agency.	• Private companies specialized in alternative energy solutions – for example, Ecodit • Local and international NGOs involved in Karantina – for example, UNDP
Use of Outputs		
• The funding agency can implement the plan. • Households in Karantina can access alternative sources of energy – for example, solar energy	• A memorandum of understanding signed with a contracting firm to implement the design. • Number of households with access to alternative sources of energy.	• Private companies specialized in alternative energy solutions – for example, Ecodit • Local and international NGOs involved in Karantina – for example, UNDP
Outcomes/Direct Benefits		
• A new source of energy for the residents. • Reduction in the use of non-renewable energy.	• Annual consumption of non-renewable energy associated with on-site generation. • Annual reduction in costs due to the use of non-renewable energy	• Private companies specialized in alternative energy solutions – for example, Ecodit

• Reduction in the cost of electricity generation. • Reduction in noise and air pollution levels. • Improved security and access to sources of energy.	• . Amount of energy produced by solar panels, wind turbines, or other environmentally responsible sources. • Calculation of noise pollution level. • Percentage of polluting parameters in the air. • Number of households with safe and reliable access to electricity.	• Local and international NGOs involved in Karantina – for example, UNDP • Private research centers for example, the Nature Conservation Center at the American University of Beirut • The Ministry of Environment
Impacts/Indirect Benefits		
• Enhancement in the overall quality of environment. • Building local knowledge of sustainable practices and green technologies.	• Percentage of polluting parameters in the air. • Population of Karantina aware of sustainable practices and green technologies.	• Private research centers for example, the Nature Conservation Center at the American University of Beirut • The Ministry of Environment
AP 28 Design and implement a solid waste management plan.		
Contributes to Strategies: • **E2.1:** Regulate the management of solid waste.		
Result Chain	**Indicators**	**Potential Stakeholders and Sources of Data**
Activities		
• Assign a private firm to devise a waste management plan that aims to integrate green technologies and reduce pollution levels. • Raise funds for the implementation of the project.	• Number of meetings between experts, private entities, and public agencies toward devising the plan. • A private institution tasked with the development of the water management plan. • Number of meetings held with donors to secure funds for implementing the plan.	• The Municipality of Beirut • The Ministry of Environment • The Council for Development and Reconstruction • The Office of the Minister of State for Administrative Reform
Outputs		
• A solid waste management plan that adopts the three principles of sustainable production and consumption: reuse, reduce, and recycle.	• A plan for waste management submitted to the Municipality of Beirut.	• The Office of the Minister of State for Administrative Reform • Local and international NGOs involved in Karantina – for example, UNDP • The Council for Development and Reconstruction

		• The Municipality of Beirut • The Ministry of Environment
Use of Outputs		
• The Municipality of Beirut can implement the solid waste management plan with the help of funding agencies.	• Number of inter-municipal meetings to coordinate the management of solid waste. • A donor agency adopting and funding the plan.	• The Municipality of Beirut • Local and international NGOs involved in Karantina – for example, UNDP
Outcomes/Direct Benefits		
• Reduction in the amounts of solid waste that the residents produce. • Better cooperation and coordination between the organizers of waste management initiatives, including the Municipality of Beirut and different civil society groups.	• Percentage of materials saved from waste disposal, including recycled material. • Number of households sorting waste from the source or reusing solid waste • . Percentage of non-recycled solid waste produced kilograms/cap/day. • Number of meetings between the Municipality of Beirut and different stakeholders to coordinate the management of solid waste.	• The Municipality of Beirut • Local and international NGOs involved in Karantina – for example, UNDP
Impacts/Indirect Benefits		
• Better overall environmental quality. • Controlled capacities of waste in the landfill. • More awareness of the importance of recycling and reducing the production of waste at the source.	• Amount of waste dumped into the landfill. • Number of households sorting waste from the source or reusing solid waste.	• The Office of the Minister of State for Administrative Reform • Local and international NGOs involved in Karantina – for example, UNDP • The Ministry of Environment

AP 29 Conduct a study to revitalize the Beirut River and activate its edges.		
Contributes to Strategies: • **E2.2:** Clean and green the Beirut River corridor.		
Result Chain	**Indicators**	**Potential Stakeholders and Sources of Data**
Activities		
• Form a team of experts to conduct a detailed study on the rehabilitation of the Beirut River. • Set up advocacy groups for the enactment of the penalty taxation system on major pollutants that are channeled to the Beirut River, including pollutants from nearby factories and industrial facilities.	• Number of team meetings to conduct the study. • Number of times activists meet to form an advocacy group.	• The Ministry of Energy and Water • Media outlets • The Beirut Urban Lab
Outputs		
• A detailed study on the rehabilitation of the Beirut River. • Campaigns to advocate for the protection of the Beirut River.	• Number of studies on the revitalization of the Beirut River. • Number of campaigns by advocacy groups. • Number of media posts about the protection and rehabilitation of the Beirut River.	• The Ministry of Energy and Water • Media outlets • Local NGOs involved in public spaces – for example, Nahnoo and Public Works
Use of Outputs		
• The Ministry of Energy and Water can call for funding based on this study.	• Number of meetings with donor agencies to request funding.	• The Ministry of Energy and Water • Media outlets
Outcomes/Direct Benefits		
• A donor agency adopting a study on the rehabilitation of the Beirut River. • The Ministry of Environment enacting penalties on industries discharging their pollutants into the Beirut River.	• Number of donor agencies attending the call for funding. • A funding agency adopting the study. • Number of penalties enacted against the industries polluting the Beirut River.	• The Ministry of Energy and Water • The Ministry of Environment • Media outlets
Impacts/Indirect Benefits		
• Raising awareness on the importance of rivers serving as amenity landscapes.	• Number of people joining campaigns that advocate for the importance of the Beirut River.	• Local NGOs involved in public spaces – for example, Nahnoo and Public Works

AP 30 Identify elements of landscape heritage in Karantina and propose a law for their protection.		
Contributes to Strategies: • **E6.1:** Develop a legal framework for the identification and protection of landscape heritage.		
Result Chain	**Indicators**	**Potential Stakeholders and Sources of Data**
Activities		
• Form a team to conduct a research study that identifies elements of landscape heritage in Karantina. • Set up an expert team to propose a law for the protection of identified landscape heritage.	• Number of meetings held by the team to conduct the study. • Number of workshops and seminars held by the legal experts to propose a new law.	• Local and international agencies concerned about cultural heritage – and UNESCO • The Directorate General of Antiquities • The Beirut Urban Lab
Outputs		
• A study that identifies and classifies landscape heritage in Karantina. • A proposed law for the protection of landscape heritage.	• A study submitted to the Directorate General of Antiquities to classify landscape heritage in Karantina. • A proposed law for the protection of landscape heritage submitted to the Parliamentary Committee.	• The Directorate General of Antiquities • Local and international agencies concerned about cultural heritage – for example, UNESCO
Use of Outputs		
• The Lebanese parliament can use the proposed law to classify landscapes in Karantina and beyond as heritage.	• A Parliamentary Committee meeting to discuss the proposed law.	• The Directorate General of Antiquities • Media outlets
Outcomes/Direct Benefits		
• Restoration and protection of culturally and ecologically valuable landscape elements.	• Area or quantity of culturally valuable elements protected or restored after the passing of the law. • Number of facilities that recreation create opportunities for or social interaction such as trails and seating areas.	• Local and international agencies working on cultural heritage – for example, UNESCO
Impacts/Indirect Benefits		
• Valorization of landscape heritage. • Awareness about the importance of heritage and heritage landscapes.	• Number of media posts on the importance of landscape heritage.	• Media outlets

4. ALIGNMENT WITH SELECTED CITY-SCALE STUDIES

Although the strategic framework was developed at a neighborhood scale using the City Development Strategy (CDS) model, some of its strategic goals operate at a city scale. Accordingly, it is vital to ensure that Karantina is not isolated from its context with the strategic goals operating at different scales. Moreover, in the absence of any government plans for urban recovery, it is important to align Karantina with city-scale plans and professional studies developed on the context of Beirut. In the aftermath of the Beirut Port blast in 2020, the government was absent; except for its minor involvement in relief efforts and cash assistance distributed by the army. Other actors on the ground operated without clear coordination or a comprehensive shared vision. The recovery efforts were limited to short-term aid and physical reconstruction of buildings without a holistic strategy for urban recovery on both local and city-wide scales. Therefore, this section of the report aims to monitor the alignment of Karantina with city-scale references, especially references that were crafted using collaborative models.

To do so, this section identifies seven selected professional studies developed on Beirut. The aim is to extract objectives relating to Karantina and state their corresponding indicators. The first reference is the Beirut Urban Declaration, which identifies reconstruction objectives for the neighborhoods hit by the Beirut Port blast. The other selected studies cover landscape heritage, landscape planning, networking open spaces, and housing.

1. Alignment with the Beirut Urban Declaration for the Reconstruction of Neighborhoods Hit by the 4th of August Explosion

The Beirut Urban Declaration proposed a vision for the reconstruction of the neighborhoods affected by the Beirut Port blast. It is part of an initiative by the Order of Engineers and Architects, developed in partnership with the Faculties of Architecture in Lebanon. It covers objectives spanning over five axes, namely: (A) City Identity, (B) Economic and Social Consequences and Challenges to be faced, (C) Towards a Comprehensive View of Rehabilitating- the Destroyed Area, (D) Challenges of Protecting and - Rehabilitating the Urban Heritage Fabric, and (E) Management and Organization of Planning and Reconstruction. The strategic framework for the urban recovery of Karantina is aligned with four of the five axes in this declaration. This section of the report extracts the recommendations related to Karantina and identifies their corresponding indicators.

2. Alignment with the Study on Modern Heritage: "Identifying Cultural Heritage Attributes in Beirut Blast Damaged Areas"

This study focused on identifying modern heritage, both built and landscape, in the areas impacted by the Beirut Port blast. Commissioned by the UNESCO, the Beirut Urban Lab (BUL) conducted the study and submitted it to the Directorate General of Antiquities in Lebanon. The study area included parts of the following sectors: Port, Saifi, Rmeil, and Medawar. The BUL formulated a framework for modern urban landscape heritage, primarily using the Historic Urban Landscape approach. This approach was adapted to the context of Beirut under post-blast conditions and for the purpose of urban recovery. Based on the mapping and analysis of the collected data, the built and landscape modern heritage were designated. The designations were based on the architectural, spatial, urban, socio-cultural, and environmental values of the buildings and green or open spaces. This process informed the reading of the study area as a historic urban landscape. It read the study area as clusters and ensembles and identified concentrations of gardens. This study can serve as a pilot project for identifying modern heritage in Beirut.

Therefore, it is important to align Karantina's urban recovery with the objectives of the study, especially that Karantina contains a rich layer of heritage landscapes.

3. Alignment with The Plan Vert of Beirut

Commissioned by ILE de France in 2013, URBI Habib Debs Architects and Urbanists and Francis Landscapes prepared the Plan Vert of Beirut and submitted it to the Municipality of Beirut. The objectives of the plan included strengthening the identity of Beirut and its neighborhoods, reducing social inequalities, providing a framework for a soft mobility network, protecting the urban ecosystem, and contributing to the overall restructuring of the urban landscape. To meet these objectives, the plan mapped existing gardens, green and open spaces, and cemeteries in Beirut. It then proposed spatial landscape strategies that incorporated green corridors, pedestrian connectivity, existing gardens and open spaces, and the vegetative layer, followed by design guidelines and master plans for implementation. This plan serves as a reference for landscape planning in Beirut. Therefore, this report extracted objectives related to Karantina from the plan and identified indicators for their implementation.

4. Alignment with the Vision for an Open Space Network in the Areas Affected by the Beirut Port Blast

As part of its response to the Beirut Port blast, the Beirut Urban Lab put together a vision for an open space network in the neighborhoods affected by the blast. This vision was driven by the notion that the recovery of public and shared spaces is an entry point and a catalyst to a holistic urban recovery. It aims to connect the impacted neighborhoods to the sea, strengthen the physical and social connection between these neighborhoods, and strengthen pedestrian connectivity between the public spaces and social magnets. This vision builds on the principles and strategies in the Plan Vert of Beirut and integrates micro-scale interventions taking place in the neighborhoods. This report extracts objectives relating to Karantina from this vision.

5. Alignment with the Study on Vacancy in Beirut: "Property Tax No More Vacancy Exemptions"

Taking the Municipal Beirut as a case study, the Beirut Urban Lab conducted this study based on a thorough survey of 2,692 filed construction permits between 1996 and 2018. The main recommendation of this study was to revoke the tax exemptions on vacant properties to limit speculative practices and increase revenues in public agencies. This objective was covered in Action Plan 06, and the corresponding indicators are listed in the table below.

6. Alignment with the Study on Inclusionary Housing: "You Can Stay in Beirut"

This study addressed the housing crisis in Beirut and proposed long term as well as tangible and easy to implement interventions. The strategic framework for the urban recovery of Karantina is aligned with the interventions proposed in the table below.

7. Alignment with the Study on the Post-Blast Recovery of the Housing Sector: "Lebanon's Housing Ecosystem and Self-Recovery Pathways"

This study by the Beirut Urban Lab mapped the challenges of post-blast recovery in the housing sector and proposed recommendations that aligned with existing policies in Lebanon. The table below identifies objectives from this study that match with the objectives set for Karantina and identifies its corresponding indicators.

1. Alignment with the Beirut Urban Declaration for the Reconstruction of Neighborhoods Hit by the 4th of August Explosion		
Objectives	**Indicators**	**Potential Stakeholders and Sources of Data**
(A) Taking into consideration the historical peculiarities of the formation of the Karantina and the Maslakh (the slaughterhouse) neighborhoods (p.12)	• Number of employees in the three economic drivers (the slaughterhouse, the public market, and the fish market). • A rehabilitation plan for the slaughterhouse submitted to the Municipality of Beirut with a management program. • Number of employment opportunities for residents from the Arab Tribes in the slaughterhouse. • Number of traders and businesses buying meat from the slaughterhouse.	• The Municipality of Beirut • The Butchers Union and Livestock • The Traders Syndicate • The Lebanese Meat Traders
(A) Taking into consideration the economic and social transformations the region witnessed during the past twenty years, with the decline of the traditional crafts activities (p.12)	• Number of capacity-building workshops for crafts-related businesses. • Employment rates in the crafts and manufacturing sector in Karantina. • Number of design, art, and craft-related businesses in Karantina.	• Local and international NGOs involved in Karantina – for example, UNDP • Entrepreneurship organizations that support businesses – for example, Berytech • NGOs involved in arts and design activities – for example, Haven for Artists
(B) Work to reach frameworks that allow the construction of housing for people with limited income in the affected area, especially in the areas of Karantina and Maslakh (p.12)	• A new registry platform that connects donors to owners of properties damaged by the Beirut Port blast. • Number of owners with damaged property reporting these damages to the administrators of the platform. • Number of donors and donor agencies connected to the platform.	• Local and international NGOs involved in Karantina – for example, UNDP • Local NGOs administrating the platform

(B) Rehabilitation of the health sector (hospitals and medical centers), to meet the needs of the area, after the destruction of four main hospitals and a number of medical centers (p.13)	• A multi-purpose complex established in Karantina, including a public school, an affordable family clinic, and a sports and recreational facility. • Number of families visiting the clinic per month.	• The Municipality of Beirut • Local and international NGOs involved in Karantina – for example, UNDP • Local and international agencies involved in education and health – for example, UNICEF, UNRWA, and ESCWA
(B) Establishing business incubators to show and build the creative capabilities of young people in society, and to extract them from the daily stalemate of living. These incubators depend on effective local economies and support to grow and develop (p.255)	• The establishment of the design hub in Karantina[4].	• The Municipality of Beirut • Donor agencies that are involved in Karantina – for example, UN-Habitat
(C) Reconnecting the port with the city center, and restoring its relationship with the affected areas (p.13), Define and reconsider the function of the port and its relationship with other neighboring cities on the Lebanese coast, and activating it as a touristic hub within the Mediterranean cities network (p.104)	• Number of accessible points to the sea through the port within walkable distance from Karantina. • Number of capacity-building projects and workshops that can support port-related and other industrial businesses. • Number of port-related companies in Karantina registered every year.	• The Ministry of Public Works and Transport • Local and international NGOs involved in Karantina – for example, UNDP • The Beirut Urban Observatory in the Beirut Urban Lab • The Ministry of Economy and Trade
(C) Study the issue of public transport and the problem of smooth mobility paths, and set them as a priority in the reconstruction plan (p.13), Activate public transport in Beirut in general and the destroyed area in particular, with the aim of modernizing the transportation system and the activation of Charles Helou Station (p.102,183)	• A transportation plan that includes a proposal for connection points, bus stops, traffic scheme, and truck parking submitted to the Ministry of Public Works and Transportation.	• The Ministry of Public Works and Transport • Local and international NGOs involved in Karantina – for example, UNDP

4 Refer to Action Plan 25 in Report 04

(C) Allow the development of public spaces that have the potential to transform into meeting and gathering centers (p.13), Reconsider the Beirut waterfront as part of a pedestrian network from the corniche to Karantina, to reconnect the city with each other (p.102), Develop a plan to relink the city center with the rest of the neighborhoods, and to reconsider its function (p.102), Reactivate the stairs and the green spaces and linking them with each other in the areas of Mar Mikhael, Gemmayzeh and Karantina (p.102), Determine the future functions of the Al-Khodor-Karantina area and its relationship with the Charles Helou Highway and the waterfront (p.102), Reactivate the Ibrahim Bacha and Al-Khodor streets (p.112, 120)	• Square meters of implemented green strips and public spaces[5]. • Number of visitors and residents using the open spaces. • Number of visitors and residents engaging in recreational and social activities.	• The Municipality of Beirut • The Beirut Urban Observatory at the Beirut Urban Lab • Local and international NGOs involved in Karantina – for example, UNDP • Local NGOs involved in public spaces – for example, Nahnoo and Public Works
(C) Developing and reactivating the free zone and the popular souk of Karantina as part of the city's public services (p.104)	• A rehabilitation plan for the public and fish markets adopted by donor agencies. • An institutional framework for the management of the markets adopted by the Municipality of Beirut and the Public Authority for Consumer Markets. • Markets that are accessible to the public after implementing the rehabilitation plans. • Number of visitors coming to the design hub and the fish markets.	• The Public Authority for Consumer Markets • The Ministry of Economy and Trade • The Municipality of Beirut • The Ministry of Public Health • The Ministry of Agriculture • The Syndicate of Beirut Fish Vendors
(C) Connecting areas of Karantina through the reactivation of vacant lots (p.112)	• A subdivision plan of the municipal lot submitted to the Directorate General of Urban Planning in the Ministry of Public Works and Transportation. • Number of crossings into Karantina through the municipal lot.	• The Municipality of Beirut • The Directorate General of Urban Planning

5 From the proposals discussed in AP 13: the Charles Helou Boulevard, the Coastline Corridor, the Estuary Park, the Open Space Network, and the Garden on the Charles Helou Highway.

(D) Formulate laws and regulations necessary to preserve cities and historical monuments from attacks and natural deterioration, in coordination and cooperation with various related authorities	• A study submitted to the Directorate General of Antiquities, classifying the landscape heritage in Karantina. • Area or quantity of culturally valuable elements protected or restored after the passing of the new laws and regulations.	• The Directorate General of Antiquities • Local and international agencies that explore and classify built and landscape heritage – for example, UNESCO
2. Alignment with the Study on Modern Heritage: "Identifying Cultural Heritage Attributes in Beirut Blast Damaged Areas"		
Objectives	**Indicators**	**Potential Stakeholders and Sources of Data**
Conduct a survey of the landscape heritage in Karantina	• Number of surveys conducted on landscape heritage in Karantina.	• Local and international agencies that explore and classify built and landscape heritage – for example, UNESCO
Designate landscapes as heritage	• Number of landscapes designated as heritage.	• Local and international agencies that explore and classify built and landscape heritage – for example, UNESCO • The Directorate General of Antiquities
Identify garden concentrations	• A map showing garden concentrations in the area, if any are present.	• Local and international agencies that explore and classify built and landscape heritage – for example, UNESCO • The Directorate General of Antiquities
3. Alignment with The Plan Vert of Beirut		
Objectives	**Indicators**	**Potential Stakeholders and Sources of Data**
Landscaping of avenues, including Charles Helou Highway (Rapport Tranche Ferme Phase I: Diagnostic, Benchmark et Enjeux - p.247)	• Number of trees planted in the sidewalks and road medians.	• The Municipality of Beirut • The Ministry of Public Works and Transportations
Creating a connection between the train station and Karantina (Rapport Tranche Ferme Phase II: Propositions - p.65)	• Number of pedestrian crossings available between Karantina and the abandoned train station.	• The Municipality of Beirut • The Ministry of Public Works and Transportation

Designing the Beirut River as a green corridor with a proposed park at the level of the estuary	• Area of designed open spaces (in square meters) available along the Beirut River. • Number of trees and shrubs available along the edges of the Beirut River.	• The Municipality of Beirut • The Ministry of Public Works and Transportation
4. Alignment with the Vision for an Open Space Network in the Areas Affected by the Beirut Port Blast		
Objectives	**Indicators**	**Potential Stakeholders and Sources of Data**
Activating Charles Helou Highway as an urban Boulevard	• Area of designed sidewalks, road medians, and open spaces (in square meters) on the Charles Helou Boulevard. • Number of pedestrian crossings into Mar Mikhael. • Number of trees and shrubs planted along the strip of the Charles Helou Boulevard..	• The Ministry of Public Works and Transport • The Municipality of Beirut
Introducing a coastline corridor from Beirut River Estuary to the Waterfront area	• Area of designed corridor in square meters along the coastline.	• The Ministry of Public Works and Transport • The Municipality of Beirut
Reinforcing the city-port connection by integrating the port within the urban fabric	• A local advocacy group that supports donor agencies working on the reconstruction projects of the port, with an aim to reconnect Karantina with the sea.	• The Beirut Urban Lab
5. Alignment with the Study on Vacancy in Beirut: "Property Tax No More Vacancy Exemptions"		
Objectives	**Indicators**	**Potential Stakeholders and Sources of Data**
Revoking tax exemptions on vacant properties	• A new vacancy tax regulation published in the official Gazette Journal. • Number of vacant apartments.	• The official Gazette Journal • The Beirut Built Environment Database by the Beirut Urban Lab

6. Alignment with the Study on Inclusionary Housing: "You Can Stay in Beirut"		
Objectives	**Indicators**	**Potential Stakeholders and Sources of Data**
Tax empty properties (p.2)	• A new vacancy tax regulation published in the official Gazette Journal. • Number of vacant apartments	• The official Gazette Journal • The Beirut Built Environment Database by the Beirut Urban Labt
Density Bonuses (p.2)	• A decision to give density bonuses for developers who build affordable housing units. • Number of developers benefiting from the density bonus.	• The Directorate General of Urban Planning
Make land available for residential developments (p.2)	• A subdivision plan of the municipal lot submitted to the Ministry of Public Works and Transportation. • A new decree that adopts the subdivision plan and puts it into use. • Number of development projects implemented on the subdivided lots. • Number of affordable housing units included in the new development projects.	• The Ministry of Public Works and Transportation • The Municipality of Beirut • The Directorate General of Urban Planning • The City of Tenants Platform by the Beirut Urban Lab
Housing loans (p.2)	• Number of meetings held by the team of experts to propose a strategy for reforming the new system of housing bank loans. • A new strategy proposed by the team of experts to Banque de l'Habitat. • Banque de l' Habitat adopting the proposal. • The amount of housing bank loans offered by Banque de l' Habitat. • Modified eligibility criteria for getting the housing loan	• Banque de l'Habitat • Non-profit research and advocacy organizations involved in housing rights – for example, Public Works and Legal Agenda • Media outlets

	• Number of people with low incomes subscribed to receive the housing loans.	
Price control (p.2)	• A reformed rent law published in the official Gazette Journal.	• The official Gazette Journal
Rent control and regulation (p.2)	• Number of meetings held between the team of experts to revise the rent-related laws. • A proposal for a revised rent law. • Revisions to the rent law submitted to the Lebanese Parliamentary Committee. • A Parliamentary Committee meeting held to discuss the reformed rent law proposal. • A reformed rent law published in the official Gazette Journal. • Prices of rent. • Percentage of affordable housing units in the total housing stock.	• Non-profit research and advocacy organizations involved in housing rights – for example, Public Works and Legal Agenda • The National Committee to Protect the Right to Housing and Tenants Rights • The Beirut Urban Lab • Media outlets • The official Gazette Journal • The City of Tenants Platform by the Beirut Urban Lab
Eviction Controls (p.2)	• Number of tenants receiving eviction notices or under threat of eviction. • Number of tenants who are evicted.	• The Housing Monitor by Public Works Studio • Non-profit research and advocacy organizations involved in housing rights – for example, Public Works and Legal Agenda • International agencies involved in housing projects – for example, UN-Habitat

7. Alignment with the Study on the Post-Blast Recovery of the Housing Sector: "Lebanon's Housing Ecosystem and Self-Recovery Pathways"		
Objectives	**Indicators**	**Potential Stakeholders and Sources of Data**
Striving for equalizing the quality and form of support extended to residents	• Number of meetings held between the team members working on the establishment of a platform that matches donors with property owners needing to rehabilitate their buildings.	• Local and International NGOs involved in Karantina – for example, UNDP • Local NGO administrating the platform

	• Number of professionals recruited to run the platform. • Number of owners of damaged buildings reporting these damages to the platform. • Number of donors connected to the platform. • Number of buildings repaired through the platform per month.	• The Beirut Urban Observatory by the Beirut Urban Lab
Building a collective neighborhood committee beyond the individual actors	• Number of meetings that the neighborhood committee holds in Karantina. • Number of potential members trained in management and communication skills. • Number of committee meetings held in Karantina.	• Local and International NGOs involved in Karantina – for example, UNDP

5. CONCLUSION

This report presented the monitoring and indicator systems necessary for assessing Karantina's recovery over time. These systems constitute the last component of the urban recovery strategy of Karantina. As per the CDS model, the first four steps of the urban recovery strategy of Karantina included (1) descriptive memory, (2) strategic diagnosis, (3) strategic framework, and (4) action plans[6] . The monitoring and indicator systems included three sets of indicators assessing the ongoing changes in Karantina in the post-blast urban recovery phase. The neighborhood performance indicators responded to the general and strategic objectives in report 03, while the program indicators responded to the action plans in report 04. The last set of indicators responded to the objectives set by selected city-scale references. They were designed to ensure that Karantina is not isolated from its context with the strategic goals operating at different scales.

The monitoring and indicator systems were crucial for the long-term sustainability and agility of the urban recovery strategy of Karantina. They are particularly crucial in a context like Beirut, where government-led plans are absent as public institutions are weak and inefficient. Responding to these challenges, the urban recovery strategy proposed a collaborative model that can overcome such complexities. This model, including the local communities, donors and funding agencies, actors in public institutions, and academic and research units, will operate as a long-term platform for the ongoing dialogue on the future of Karantina. A consortium including the mentioned stakeholders will become the custodians of the long-term recovery of Karantina. As an alternative replacing the top-heavy and bottom-up approaches to recovery, this model remains open and flexible for stakeholders to participate in the recovery process of Karantina.

Working at a time of uncertainty necessitates a constantly evolving and adaptable strategy to ensure its long-term sustainability. The urban recovery strategy is expected to remain dynamic through ongoing collaboration and coordination among the relevant stakeholders and responding to the constantly evolving needs of the community. Regular revisiting, revising, and updating the strategy becomes crucial under such contexts. For this reason, the proposed strategic framework for the urban recovery of Karantina was made flexible so that its custodians can go through iterative reviews to accommodate the pace of the city's development and adapt to the changing factors on the ground. The custodians should not only be responsible for implementing the strategic framework but also for maintaining it as a living document that can adapt to the future needs of Karantina. Through the sources listed in the previous sections, the report suggests collecting data every five years to ensure consistent monitoring of the recovery process. The Beirut Urban Lab can contribute to the data needed during the monitoring phase through its databases and monitoring platforms: the Beirut Built Environment Database, the Beirut Urban Observatory, the City of Tenants, and Precarious Lives.

The piloted urban recovery strategy for Karantina is expected to serve as a model to be utilized and adapted to other areas in Lebanon, in the continued absence of a clear role and strategy by the government. It can empower local actors to implement and direct projects and channel funds to projects that operate within strategic framework(s) and would translate community-based vision(s). It is also expected to serve as a model for the urban recovery of other post-disaster contexts and neighborhoods in other countries and the development of other sites with overlapping vulnerabilities.

6 https://beiruturbanlab.com/en/Details/889

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