CASE STUDY

LEBANON 2020–2022 / BEIRUT PORT BLAST

KEYWORDS: Area based approach, Housing rehabilitation, Infrastructure, Urban neighborhoods

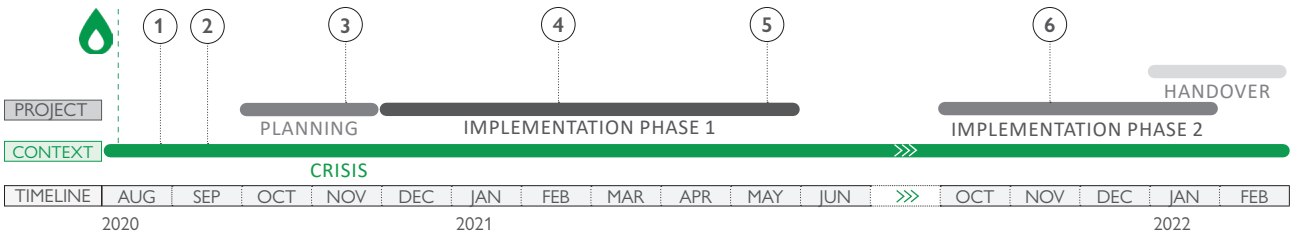
CRISIS	**Beirut Port Blast**
PEOPLE AFFECTED	**200+** people dead* **6,500** people injured*
PEOPLE DISPLACED	**300,000** people**
HOMES DAMAGED	**73,000** apartments in **9,200** buildings damaged*
PEOPLE WITH SHELTER NEEDS	**219,000** people*
PROJECT LOCATION	Burj Hammoud, Beirut
PEOPLE SUPPORTED BY THE PROJECT	**206** HHs (**710** ind.) through shelter repairs **283** HHs and businesses (**1190** direct and indirect individuals) through Urban Recovery
PROJECT OUTPUTS	**206 shelters** and **24 shopfronts repaired** (154 shelters supported with light repairs and 52 with moderate repairs) **1 urban recovery project** implemented (rehabilitation of 11 building facades, installation of 21 streetlights and cable management along 230 l.m. of streets, creation of a green public space)
DIRECT COST	Cost of shelter repairs: **USD 329,022** (USD 1,597 per HH) Cost of shopfront repairs: **USD 50,000** (USD 2,083 per shop) Cost of urban project: **USD 99,220** (USD 350 per HHs & business)
PROJECT COST	**USD 1,153,000** approx.

PROJECT SUMMARY

The project responded to the shelter needs in the aftermath of the port blast, which shook a country with heightened social tensions, and collective psychological exhaustion due to an unprecedented financial crisis, unemployment, crippled public services, inflation, and Covid-19 lockdowns. The project seeked to support the recovery of affected households including an urban recovery component that engaged the wider community, significantly contributing towards improved access to services that enhanced safety and security and promoted social cohesion.

* The humanitarian response to the Beirut port explosions: Lebanon 2020 Flash Appeal - End report

** Leduc, Clémence. "The Beirut blast and what it says about how displacement is monitored." IDMC, 1 Sept, 2020



Aug 2020: Explosion took place in the Port of Beirut causing a blast wave that radiated through the city and beyond

1. **Aug 2020:** Monitoring of information and data shared through emergency coordinating bodies.
2. **Sep - Oct 2020:** A strategic partner was identified and scope of partnership was developed. Four implementing partners were selected and trained on implementation and programmatic tools.
3. **Nov 2020:** Zone 78 and 79 were assigned to the organization for implementation of minor and moderate rehabilitation and repair.
4. **Feb 2021:** Identification of urban recovery interventions after KI-interviews, transect walks across neighborhoods, and focus group discussions with the community.
5. **May - Jun 2021:** HH assessments were conducted and new area was selected through Area based Approach (ABA).
6. **Nov 2021:** Completion of After-Action Review (AAR). Lessons learned influenced implementation in the new zone.

A massive explosion damaged 9,200 buildings across the city of Beirut, sending a giant mushroom cloud into the sky while leaving 300,000 people displaced.

CONTEXT

On 4 August 2020, an estimated 2,750 tons of ammonium nitrate – a fertilizer and highly flammable substance – exploded in the Port of Beirut on the city's northern Mediterranean coast, causing a blast wave that radiated through the city and beyond. The explosion destroyed a section of the shoreline, and homes as far as ten kilometers away were affected by the blast. The Governor of Beirut estimated that roughly 300,000 people were displaced by the explosion and that 40,000 homes and apartments were damaged and required demolition – with at least 150,000 windows needing installation. The following period brought a shortage of aluminum and glass, and a severely disrupted supply chain due to the port's destruction and the global and national COVID-19 lockdowns.

The country was already suffering a severe economic crisis with a local currency devaluation at almost 95 percent, which complicated the import of additional resources and exerted significant upwards pressure on the cost of essential goods and construction materials to support recovery and reconstruction.

Damage from the explosion was categorized into three levels, as per the inter-agency coordination map:

Level 3: Within 1 kilometer of the port. Major structural damage to buildings.

Level 2: Within 2 kilometers of the port. Home to 750,000 people. Windows and doors shattered, and some balconies collapsed.

Level 1: Within 3 kilometers of the port. Minor damage, such as windows damage and cracks in older structures.

Authorities estimated that initial total property damage was as high as USD 10-15 billion.

SITUATION BEFORE THE CRISIS

Amidst a stagnant economy and high unemployment, the Lebanese Government announced taxes on fuel, tobacco, and VoIP applications such as WhatsApp in October 2019. This triggered nationwide protests and signaled the beginning of an ongoing economic and financial crisis which resulted in the widespread loss of livelihoods.

The devaluation of the Lebanese pound meant that many families found themselves unable to cover basic needs. For the Syrian and Palestinian refugees in the country, the economic crisis caused a greater need for social assistance to cover basic needs, including rent.

Some refugees moved from residential areas to informal settlements. However, registered Syrian refugees continued to receive cash benefits in USD through local NGO cash programming.

This discrepancy, along with competition over limited employment opportunities, gave rise to social tensions between the host community and refugee groups and increased perception of aid bias.

UN Habitat's Geographic Poverty Index labels Burj Hammoud, one of the areas most impacted by the explosion – and one of Lebanon's most densely populated neighborhoods – as majority poor. It is a commercial, residential, and industrial town. Historically, it was home to the Lebanese Armenian community after the First World War, and it received displaced Lebanese during the Lebanese civil war.

Over the years, however, migrant workers from Bangladesh, Ethiopia, Sri Lanka, and Egypt have flocked to the neighborhood seeking affordable rent, and more recently, even Syrian refugees who work in its bustling small businesses or the port nearby.

Damage within this area was classified as mostly light and moderate, whereby light damage (level 1) was identified as any level of building damage such as broken glass, broken doors, locks, or the collapse of a false ceiling with no structural damage. It meant that the shelter remained habitable for the family with no or minor compromises on safety, security, and access to services, including water, sanitation, and electricity.

Moderate damage (level 2) was greater than level 1, but still with no structural damage. At level 2, the house was either not habitable or it was habitable with the safety and security of the premises significantly compromised. Services including water, sanitation, and electricity were either not or only partly accessible.

An estimated 40,000 homes and apartments were damaged and required demolition – with at least 150,000 windows needing installation. A shortage of aluminium and glass, and a severely disrupted supply chain due to the port's destruction and the global and national COVID-19 lockdowns was witnessed during this time.

SITUATION AFTER THE CRISIS

The COVID-19 pandemic and the port explosion were catastrophic for both the Lebanese and the refugee population. Unofficial estimates rated unemployment at approximately 44 percent in 2021, while the Economic and Social Commission for Western Asia (ESCWA) studies stated that multi-dimensional poverty reached a staggering 82 percent in 2022 (Multi-dimensional poverty measures households deprived along three dimensions of well-being – monetary poverty, education, and basic infrastructure services – to provide a complete picture of poverty).

In reaction to the explosion, the government declared a two-week state of emergency. Protests and public outrage towards the government's performance caused the cabinet to resign on 10 August 2020. Many residents in Burj Hammoud were temporarily moved out of their homes and sought to live with relatives and friends, returning to their area of residence only following humanitarian interventions and aid. The explosion also damaged businesses, causing significant economic disruption for the local community. Lebanon's housing stock had been neglected and poorly maintained pre-crisis, its decay post-crisis was striking to intervening actors.

NATIONAL SHELTER STRATEGY/RESPONSE

UN agencies and the Lebanese Armed Forces led the response to ensure that humanitarian assistance reached the most affected, with partners under the Lebanon Crisis Response Plan (LCRP), developed by the Government of Lebanon and the UN to support displaced Syrians, vulnerable Lebanese, and Palestinian refugees in Lebanon expanding and adapting their services. The UN launched a comprehensive response in three phases: immediate relief, early recovery, and reconstruction. The strategy involved the establishment of a specific coordination structure under the Humanitarian Coordinator's leadership to facilitate joint needs assessments and alignment in collective response strategies, and the oversight of the principled delivery of emergency assistance. The strategy included the issuance of a flash appeal, seeking USD 354.9 million to support the collective response to the most urgent protection and humanitarian needs of the affected population.

Through coordination with the shelter working group and as per the Shelter Partner's Distribution, the implementing organizations were assigned to two areas in Burj Hammoud, within a 3-kilometer radius from the blast with minor and moderate damage.

The response to the Beirut port explosion continued to evolve and gradually shifted towards providing cash assistance to increase households' purchasing power for food and other necessities and interventions to support longer-term recovery and reconstruction. Early recovery activities, such as cash-for-work, support for small and medium enterprises, and recovery and reconstruction work were conducted and integrated into the Reform, Recovery, and Reconstruction Framework.

PROJECT DESIGN

The implementing organizations carried out early recovery activities (housing rehabilitation and repair work) in the areas identified and assigned by the Shelter Working Group. In addition, they repaired some small stores and businesses affected by the blast to restore their livelihoods.

Project teams employed common approaches to support affected households and communities recovering from the Beirut port explosion including the use of participatory methodologies which allowed communities to be meaningfully engaged in decision-making on activity design, including shelter repairs and the identification of community micro-projects. Such shelter interventions applied community-based and settlement-based approaches, operating at multiple scales to strengthen local capacities.

The project focused on providing light and medium repairs to damaged homes and communal infrastructure, rehabilitating public spaces and small businesses, and providing technical assistance on shelter issues to households and local organizations.

The project also aimed to empower the community by providing opportunities for self-reliance and building local capacity through targeted livelihood initiatives. Project Objectives were as follows:

- **Objective 1:** The most vulnerable affected households regain access to safe, secure, and dignified shelter through direct support to selected partners.
- **Objective 2:** Local partners implementing shelter & settlement recovery programs have increased capacity to support affected families and neighborhoods through the provision of technical assistance.

Activities included minor repairs (up to USD 1,500), moderate repairs and rehabilitations (up to USD 4,500), shopfront repairs, urban recovery programming, and mentoring and capacity building of implementing partners. Repairs were categorized based on damage from the blast, accounting for pre-existing shelter vulnerabilities such as a lack of sanitation, lighting, ventilation, waterproofing, etc.

Construction work on a building facade as part of the urban recovery project.

IMPLEMENTATION

The international partner agencies met with the Burj Hammoud municipality to coordinate the response and initiated conversations with potential local partners to agree on the approach to adopt. Due to the economic/financial and fuel crisis, the country faced local currency devaluation and fluctuating prices.

A contractor-led approach was therefore taken to avoid price changes for items, as contractors were obligated to comply with initial quotations submitted for the duration of the project. Also, a contractor-led approach would require fewer monitoring visits to households than a tenant-led approach, which was preferable considering the COVID-19 outbreak.

Various additional tasks were undertaken, such as the repairing or reinstalling of windows and doors, installing safer electrical and lighting solutions to reduce the risk of fire, upgrading kitchen and bathroom facilities to improve functionality, weatherproofing to prevent moisture, and addressing any dampness or mold on walls and ceilings that could cause health issues. These tasks were essential in restoring minimum habitability standards and creating a comfortable living environment for participants.

Another crucial addition was the installation of handrails on balconies and stairs to enhance safety. Output targets and unit costs for light and moderate repairs were based on sector estimates of approximately USD 1,500 for light repairs and USD 4,500 for moderate repairs. The targets were adjusted based on actual needs according to the results of the assessment.

As part of the shelter repairs, tripartite agreements were signed for rental units between the implementing entity, targeted tenants, and landlords, stipulating a rent freeze for households for 12 months, in addition to refraining from evicting the tenant household from the housing unit.

A Housing, Land, and Property (HLP) guidance note in the context of the Beirut blast was developed by the implementing organization and disseminated to the shelter sector actors. HLP material with information on tenants, housing, and land rights was also developed to be disseminated in targeted communities.

However, these were not eventually disseminated to others as advised by the local authorities to avoid any community tensions between landlords and tenants.

Partners conducted regular visits to monitor repairs, check the quality of materials used, and ensure the repairs were done based on the agreed Bill of Quantity (BOQ) and with the desired quality. A site inspection tool was developed for monitoring visits. Once repairs were complete, the project team would inspect and sign a handover document with the participant and conduct a survey measuring the level of satisfaction with the quality of repairs, safety measures, accountability, COVID-19 measures, the contractor used, workers, and staff behavior and conduct. The survey demonstrated overall positive feedback from participants.

Following the completion of work in designated zones, the implementing entities switched to an Area Based Approach (ABA) in the newly identified Maraash zone, due to the multi-sectoral needs identified (such as food, health, and welfare) and the high level of vulnerability of its population.

This urban recovery intervention aimed to enhance the community's well-being and contribute to social cohesion within the neighborhood and focused on four components: an open space upgrade, managing entangled cables, lighting streets, and rehabilitating building facades.

The design of the open space included elements that considered sustainability, durability, safety, and inclusivity for people of different age groups, genders, and abilities. The space featured LED lighting, native plantings, heavy-duty furniture, rainwater harvesting, toilets for people with disabilities, a children's play area, murals, shading, and a steel fence for safety. The design for the open space was discussed with the community in a Focus Group Discussion (FGD) and was coordinated with the municipality.

TARGETING

Given the context and the similarity in damage within the same area, partner agencies decided to conduct a mapping of households through door-to-door assessments. Eligibility was determined based on shelter damage resulting from the blast. When partners expanded to the urban recovery project in the Maraash area, it was decided to identify which households still had damage from the blast through referrals from the municipality and referrals received from the field by community members.

Small businesses were unable to cover the repairs cost. They were at high risk of closing down and required assistance in fixing damage caused by the blast.

A house repaired after the explosion including windows and doors restoration, fixing of plumbing lines, and installation of water heater.

COMMUNITY ENGAGEMENT

Project teams worked to ensure transparency in communication with participants throughout the project's timeline. Clear and consistent communication on the role of partners, what to expect in terms of implementation and the duration of the rehabilitation works allowed the participants to feel included in the project and built trust between service providers and household residents.

To help ensure engagement, project teams conducted community consultations, established a community committee, and liaised with local authorities, community leaders, and various community members.

By involving affected people in the project, the implementing entities were able to: Improve shelter quality, helping to ensure that interventions meet shelter needs and preferences leading to better outcomes for the community and empower the community, allowing affected people to be aware of key activities, involving them in the decision-making processes, and enhancing ownership of the project.

MAIN CHALLENGES

Limited resources: the crisis put a strain on the country's resources. This made it more difficult for organizations to secure all necessary funding and materials to carry out and cover all needs.

The disruption of supply chains due to the pandemic outbreak in addition to the currency devaluation increased the cost of materials, fuel, and transportation needed for projects, construction materials, and supplies.

This resulted in higher and fluctuating project costs, which were challenging for planning and implementation, and heavily impacted the creation of BoQs.

Sporadic strikes and road blocking continued after the blast and made it difficult for teams and contractors to commute to the project areas which posed a challenge to implementation and project activities.

It was difficult to find suitable land, especially for communal projects as open spaces in the target areas are limited.

The refusal of some tenants and landlords to sign three-party agreements prevented the intervention in some vulnerable households. Following the handover of the public space, the municipality struggled to maintain opening hours due to financial and labor restrictions. Opening hours were then limited to municipal staff availability.

EXIT/HANDOVER

Household participants signed a clearance form stating that all work agreed with them had been executed per quality standards. Concerning the urban recovery project, an opening schedule and maintenance plan for the public space were shared with the municipality to ensure ownership and handover.

To formalize the completion of the project, an official opening ceremony of the public space took place and included municipal officials and community members.

OUTCOMES AND WIDER IMPACTS

A total of 154 households were supported through essential minor repairs and rehabilitations and 52 households were supported through essential moderate repairs and rehabilitations.

A total of 24 shopfronts were repaired because of financial and technical assistance provided by the implementing entities and local implementing partners.

One urban recovery and rehabilitation project in the Maraash neighborhood of Burj Hammoud in Beirut was conducted. Urban recovery activities included the installation of 21 energy-efficient streetlights and electric cable management along 230 linear meters of streets, essential repairs to 11 building facades, and the creation of a green and open-public space prioritized for use by women, youth, and the elderly.

A total of 13 workshops and training were provided to four local partners, where topics focused on: minimum shelter standards, implementation processes and tools, monitoring, tendering and procurement, database management, referrals and service mapping, and an after-action review.

The urban recovery intervention aimed to enhance the community's well-being and contribute to social cohesion within the neighborhood.

An official opening ceremony of the public space took place and included municipal officials and community members, for a formal handover.

STRENGTHS, WEAKNESSES AND LESSONS LEARNED

STRENGTHS

√ **Process and sequencing:** site division amongst partners within a defined area and referrals from municipality actors aided in reaching participants in high need.

√ Light Monitoring survey that measured factors such as COVID-19 measures, contractor performance, quality, and safety of work **fostered the building of trust between partners and participants.**

√ The registration database resulted in the creation of substantial data that **allowed for strong referrals** to other organizations.

√ Strong coordination between the contractor, engineer, and participants ensured a **timely and quality implementation and delivery**, enhancing the inclusion of participants in the decision-making processes.

√ Adherence to minimum building standards resulted in **positive feedback from participants** on construction safety and quality.

√ Approximately 92 percent of households responding to the **satisfaction survey reported feeling safer** because of shelter repairs and communal interventions.

√ All surveyed households reported that they were **satisfied or somewhat satisfied with the quality and type of materials used** in the shelter repairs.

√ All surveyed households were either **satisfied or somewhat satisfied with the execution of the works** by the contractor and labor.

WEAKNESSES

× **Local implementing partners had limited experience** and required additional training.

× **Participants made direct requests to contractors** without implementing entity approval, requiring additional support for local partners in terms of participant management.

× **Inability to ensure environmentally friendly and sustainable solutions** for both shelter and urban recovery projects due to budget allocation.

× **The international partner organizations were not registered in the country,** which limited their ability to influence the sector – specifically in the HLP component, whereby their ability to call for a national-level housing forum or dialogue was affected.

× There is a **need to update stakeholder mapping of available services and build referral SOPs** that ensure acknowledgment of referrals by service providers, at minimum. The referral system used did not track services by other service providers. Conducting case management for referral services would better serve targeted communities and complement the intervention.

LESSONS LEARNED

- Many of the successes of this project can be attributed to actions taken in the planning and design phase as the project team anticipated challenges and took steps to mitigate them. Through careful planning, the local partners were able to implement project activities and complete the repairs with a minimum number of home visits.
- Clear lines of communication and a unified vision and tools (planning, tracking, scoring, and monitoring tools) allow for quality and timely implementation and the exchange of experiences and learning.
- Many actors conducted assessments and left the affected area without following through with the communities or enacting interventions. Focusing on a geographically bound area allowed the implementing agencies to build trust with community members and enabled successful implementation and recovery efforts.
- Agility in implementation and adaptability of the team is key to delivering an effective response. The implementing partners' ability to make quick amendments to the BoQs, provide complementing referral services for excluded households or those in need of additional humanitarian assistance, and continued presence on the ground to ensure proper coordination with the local authorities and different actors proved to be essential for a timely and quality response.
- A holistic integrated approach should be used when supporting crisis-affected communities from the outset of the intervention, to meet household and community-level needs in target areas through infrastructure and shelter repairs within the same geographically bound zone.
- Before the development of any learning material, dissemination channels should be pre-determined to ensure optimal sharing.

RECOMMENDATIONS MOVING FORWARD

- The project should benchmark social cohesion levels to enable an accurate and evidence-based assessment of the contribution to social cohesion at the community level. This is especially necessary as the intervention set out to strengthen the social fabric and mitigate tensions within and between neighborhoods in the communal project's component as part of the original design.
- Projects should build MEAL systems with enhanced metrics while conducting baseline studies for outcomes measurement. Stronger MEAL systems would inform and support the quality of implementation, enhance accountability to the affected population, and produce evidence and learning more systematically and methodically.
- The intervention should be designed with a gender lens, in addition to prioritizing households from a gender perspective and conducting a gender assessment to inform program activities. This was not possible at the time of implementation because the local partners did not have this technical capacity in-house.
- Establishment of a community-based feedback mechanism with clear SOPs on feedback and complaint handling and resolution – although a feedback reporting mechanism was already established by the partners, it did not have methodical or systemic parameters or oversight by the implementing entity, and feedback was handled by partners.
- Include energy-efficient shelter solutions like rechargeable LED lights, water-saving sanitary ware, etc. in current projects to ensure more sustainable and environmental-friendly interventions.
- Networking opportunities afforded to us through this project will allow us to plan with relevant housing stakeholders to develop more innovative and crosscutting solutions.

FURTHER READING ON SHELTER PROJECTS

On Lebanon: A.21 / LEBANON 2018 – 2021; A.31 / LEBANON 2015-2016

On housing rehabilitation: A.29 / SYRIAN ARAB REPUBLIC 2017 – 2018; A.20 / JORDAN 2018 – 2020; A.32 / TURKEY 2017 – 2018

Urban recovery intervention focused on four components: an open space upgrade, managing entangled cables, lighting streets, and rehabilitating building facades.