

## **BEIRUT RESIDENTS' PERSPECTIVES ON AUGUST 4 BLAST**

Findings from a needs and perception survey

WORLD BANK GROUP

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The survey collected information related to five main themes: socio-economic status, damage assessment, trust in institutions, future outlook, and needs and concerns. Socio-economic status and damage assessment questions were used to construct a relative wealth index and an impact index. The remaining themes were used to develop a better understanding of residents' needs, concerns, and aspirations; as well as their perceptions on any future rehabilitation and reconstruction. No question in the survey was mandatory, and participants were free to skip any and all questions, as well as to opt out at any time. The anonymized dataset is publicly available and can be downloaded from https://microdata.worldbank.org/index.php/catalog/3771. Data presented in this report is aggregated and summarized; no personally identifiable information is shared in this report.



## Acknowledgements

The World Bank Group in collaboration with donors, including the European Union and the United Nations, prepared a Rapid Damage and Needs Assessment<sup>1</sup> for the areas affected by the massive explosion in Beirut on August 4, 2020. In conjunction with this exercise, the World Bank Group also launched an online survey with residents of Beirut and surrounding areas to better understand the impact of recent events on community members.

This document was written by Zeina Afif, Mohamad Chatila, Romeo Gansey, Tala Ismail, Fatima Karout, Sayan Kundu, Nour Nasr, Lokendra Phadera, and Hrag Vosgueritchian from the World Bank. The team worked under the guidance of Saroj Kumar Jha, World Bank Country Director, Johannes Hoogeveen, Practice Manager of the World Bank's Poverty and Equity Global Practice for the MENA region, and Ambar Narayan, Practice Manager of World Bank Group's Poverty and Equity Global Practice and the Mind, Behavior, and Development (eMBeD) Unit. The team thanks Mouna Couzi, Country Operations Officer, Raja Rehan Arshad, Lead DRM and Resilience Specialist, and Pia Peters, Practice Manager of Social Sustainability and Inclusion (SSI) for their valuable input and support. The team thanks as well Zeina El Khalil, Ashraf Al Saeed, Maha El-Swais, and Suhair Al-Zubairi for their support. Valuable inputs were received from Stavros George Stavrou, Haneen Sayed, Stephan Massing, Khalil Dagher, Naila Ahmed, Radhia Achouri, Joy Aoun, and Nay Constantine from the World Bank.

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<sup>1</sup> http://pubdocs.worldbank.org/en/650091598854062180/Beirut-Rapid-Damage-and-Needs-Assessment-August-2020-EN.pdf

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Beirut Residents'

Survey

Needs and Perception

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# I. Executive Summary

Lebanon was rocked by an explosion at the port of Beirut on August 4, 2020—causing hundreds of deaths, wounding thousands, and leading to significant destruction of livelihoods and property. The blast occurred amid political, public health, and economic crises.

As part of the immediate response, the World Bank conducted a needs and perception online survey targeting the most affected areas. The survey, deployed from August 13 to 20, captured thousands of residents' perspectives about the explosion's impact, their resulting needs, and their experiences with and expectations for assistance and reconstruction. The survey's household-level results informed the preparation of the *Beirut Rapid Damage and Needs Assessment*, including its recommendations for the recovery and reconstruction.

Quantitative results and a qualitative assessment of the survey's open-ended fields found significant demand for assistance. Variables capturing the physical impacts of the blast, including injury, death of immediate relatives, extended family or friends, and property damages were used to create an impact index. Areas of closest proximity reported the most significant material and structural damage and physical harm, where more than two-thirds of respondents were displaced from their homes.

When asked about their most pressing needs, respondents from all geographic zones and wealth categories stressed the need for mental health services. Most respondents indicated access to food as an urgent need, especially among the poorer segments of the population. Housing remained of key concern for those closest to the blast zone and larger households, and those with a lower reported monthly income were more likely to request financial and livelihood assistance.

Needs varied across gender. Women indicated medical, mental health, and safety as concerns more frequently than men. Men prioritized food, income, and legal services. Additional concerns included COVID-19, security, and food prices. Fears about air quality and toxic dust were also reported, though they were less of a concern to the poor when compared to those in wealthier demographic brackets.

Another key finding was that, while most respondents expressed needing support, over one-third had not registered for assistance at the time of the survey. When asked why they did not register, approximately 38 percent of respondents selected that they did not believe they would receive support. 34 percent did not know how to register. Other reasons cited included a low level of trust, a lack of information, feelings of shame, and the belief that they were not a priority group to receive assistance. Some respondents reportedly preferred to leave assistance to benefit others—many of these responses came from the region of Mount Lebanon, which was not heavily damaged, but also from Zone 2, which sustained significant damage due to the blast.

The survey also identified opinions about the crisis response process. Residents, on average, saw the international community as more trustworthy than national organizations. Notably, political parties were not trusted at all and religious groups were minimally trusted. Respondents expressed more, though still limited, confidence in local charities and the armed forces. The highest level of trust across age and geographic zone was awarded to the Lebanese Red Cross.

The lack of confidence in institutions mimics a lack of confidence in how resources meant for recovery would be spent. Respondents overwhelmingly felt that money committed for recovery would not be spent transparently, equally, and fairly. In all instances, less than 10 percent were very confident or extremely confident that the money would be spent well. This coincides with attitudes towards the future being largely pessimistic—something shared across geographic zones, gender, and income levels. Few respondents were confident that post-blast unity will prevail in the country. A majority believe that the situation in Lebanon and their quality of life will have worsened five years from now.

Despite the bleak outlook and lack of trust in leadership, many in Lebanon showed community solidarity. About a quarter of respondents have been invested in volunteering in the aftermath of the explosion. This includes diverse engagements through a range of organizations and activities, such

Executive Summary as distributing food, cleaning debris, providing medical and mental health services, donation drives, and linking affected residents with suppliers and contractors. Youth were more likely to participate in volunteering efforts, with 44 percent of those aged 18-24 volunteering. Men and women had relatively comparable answers regarding the assistance they offered, with the exception that more than 76 percent of food donations and more than 71 percent of cash and in-kind donations were offered by women.

Ultimately, this survey has given survivors the opportunity to express how they have been impacted and to share their needs and concerns. In doing so it provides important guidance to inform the recovery and reconstruction efforts. Meeting the needs caused by the blast and existing vulnerabilities requires a policy response centered on immediate needs such as shelter, food, and medicines as well as investments to ensure longer term welfare. These include livelihood and mental health and psychosocial assistance.

As the survey found that the areas hit hardest by the explosion are socioeconomically mixed, with some areas less vulnerable than others, policy and programming must balance support for those that have suffered significant losses from the immediate crisis and for those that were already experiencing deprivation. Achieving this goal requires careful coordination of aid, service provision, and reconstruction projects. Plus, as confidence in local and state institutions remains low, policy responses should aim to increase transparency, inclusivity, monitoring, and opportunities for participation from residents. Respondents confirm a desire to play a role in rebuilding their lives, a sense of caution of becoming dependent upon external aid entities, and an openness to sharing further feedback on the effectiveness of response mechanisms and their development priorities. Effectively capturing this data will remain necessary as perceptions of inequity and lack of transparency could fuel conflict and mistrust. Thus, attention should be given to ensure equitable distribution of assistance, particularly in reaching those most in need.

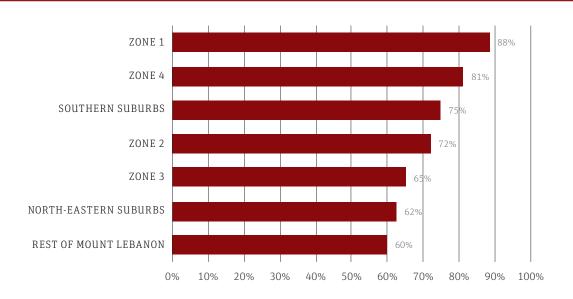
# **II. Introduction**

Amid a severe political, public health, and economic crisis, Lebanon was rocked on August 4 by an explosion at the port of Beirut. The explosion caused hundreds of deaths, wounded thousands, and destroyed livelihoods and properties to varying degrees, depending on proximity to the blast.

Prior to the explosion, Lebanon was facing simultaneous crises: (1) the spillover of the Syrian war, resulting in Lebanon hosting over 1.3 million Syrian refugees and straining deteriorating public services; (2) an economic crisis due to macro-financial failures, leading to the Lebanese pound's freefall on the black market and inflation hitting a record high of 112.4 percent<sup>2</sup> by July 2020; (3) banks restricting the frequency of and amount that residents could withdraw from their accounts; (4) the COVID-19 pandemic lockdown that was taxing an already weak healthcare system and increasing unemployment as business closures produced further layoffs; and (5) a political crisis due to countrywide public dissent and lack of trust in government and institutions, leading to the largest demonstrations in the country's history, with around 800 roadblocks and 821 sit-ins organized in 2020 alone.<sup>3</sup> With significantly reduced purchasing power, restricted access to their savings, and increased unemployment, the poor and middle class were already in dire need of financial support.

The August 4 explosion destroyed much of the port and severely damaged the dense residential and commercial areas within a one- to two- mile radius. The number of people injured from the blast has been estimated to be more than 6,000, while fatalities total more than 200. Both numbers are still rising as individuals continue to be reported missing.

To contribute to the ongoing effort of impact and needs assessment, the World Bank Group conducted a needs and perception online survey targeting Beirut and its vicinity from August 13 to 20, 2020. The survey sought to capture residents' voices in terms of impacts and needs, in addition to their experiences and expectations of assistance. The demand for assistance is enormous. Most respondents that have been displaced and affected through personal injuries and the deaths of loved ones. Depending on the area of residence, up to nine out of 10 respondents (port area or Zone 1, as pictured below) expressed at least one urgent need for assistance. In the remainder of this document, we explore the blast's impact and residents' needs, concerns, and perceptions in greater detail.



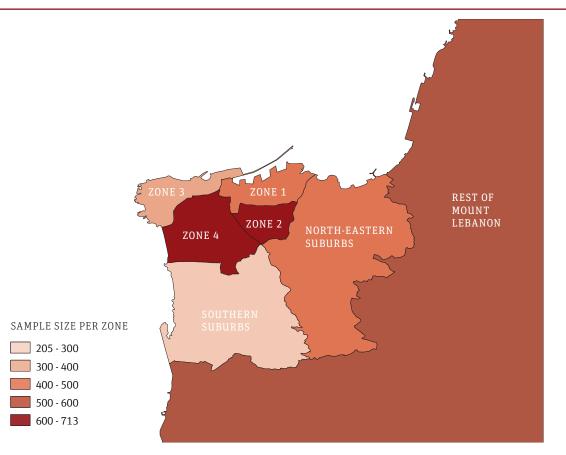
#### Figure 1: Percentages of Respondents Expressing One Need or More, by Zone

<sup>2</sup> Central Administration of Statistics (2020)

<sup>3</sup> Civil Society Centre (2020). Map of Collective Actions in Lebanon. *https://civilsociety-centre.org/cap/collective\_action* 

# III. Methodology and Descriptives





The online survey created with SurveyMonkey was conducted from August 13 to 20, 2020, in three languages (Arabic, English, and French). It was promoted through geotargeted Facebook ads targeting Beirut and surrounding areas with a radius of seven miles—the areas most affected by the port explosion. The ad only targeted users aged above 18. This targeting allowed the team to rapidly recruit participants from blast-affected areas. The ads reached over 2,000,000 people out of which 5,000 people responded. Of these 5,000 respondents, roughly 3,400 provided complete information on sociodemographic variables and were retained in our final sample.

The survey consisted of 29 questions (see Annex 5), including questions to identify respondent demographics (age, gender, education, location, and level of income); measuring how the August 4 explosion impacted respondents and their families; and assessing their needs, perceptions towards the fairness of aid delivery, and trust in institutional actors that may be involved in reconstruction efforts. The average time taken to complete the survey was between seven and eight minutes.

Facebook Ad Manager was used to publish the ad. Facebook did not provide any data on the profile of respondents who clicked on the ad, and no data was transferred between Facebook and SurveyMonkey. The survey provided respondents with a consent statement highlighting that the identity of the respondent will remain confidential. All questions were optional, and respondents could stop the survey at any time. While IP addresses were collected, this data was not retained. No location data was collected; however, respondents outside Beirut were asked in which Qada'a they reside and those in Beirut were asked which Cadastre they reside in. Data presented in this report is used in aggregate form and summarized. When presenting quotes, no personally identifiable data is attached to the quote, with the team also ensuring that the sentiments in the quote are shared by multiple respondents.

Over half (56 percent) of respondents were female. Slightly less than a quarter of respondents were between the ages of 18 and 29. Another 27 percent were aged between 30 and 39. The vast majority of respondents (90 percent) were Lebanese, a further six percent were Syrian, and one percent were

Palestinian, with the remaining respondents of other nationalities. Three-quarters of respondents had a university degree or higher, 14 percent had a high school degree whilst remaining respondents completed less than high school. Average household monthly income varied amongst respondents: 11 percent reported their monthly household income was less than 500,000 LBP; another 20 percent reported an income between 500,000 and 1,000,000 LBP; 21 percent between one and two million LBP; 34 percent between two and six million LBP; and the remainder of respondents earning over six million LBP.

To better understand the needs of different localities affected by the explosion, respondents were grouped into the below seven geographic areas based on proximity to the blast site.

**Geographic areas Observations** Percent Zone 1: Port and surrounding areas most affected by the blast, 429 12.6 including Marfaa, Medawar, Saifeh, and Remeil Zone 2: Ashrafieh 706 20.7 Zone 3: Ras Beirut and surrounding areas Minet el-Hosn, Ain el-Mreisseh, 309 9.1 and Beirut Central District Zone 4: Zoukak el-Blatt, Mazraa, Bachoura, and Moussaytbeh 713 20.9 **Mount Lebanon** Southern Suburbs of Beirut 205 6.0 North-Eastern Suburbs of Beirut 487 14.3 Rest of Mount Lebanon 567 16.6 **Total sample** 3,416 100

The design of this survey is such that its respondents are not necessarily representative of all people affected by the explosion. Being a respondent required access to internet. Potential respondents unable to participate in the survey due to their lack of internet access might have been excluded. Also, amongst those with access to internet, those affected by the explosion were probably more likely to have been motivated to respond. To agree to participate, respondents also possibly had to have sufficient trust in the World Bank collecting information and using the results in a manner acceptable to the respondent.

The sampling method utilized in this survey was the only option given the tight schedule and lack of publicly accessible data in Lebanon. One challenge Lebanon currently faces that could cripple the effectiveness of the response to the blast is data scarcity. The last official population census was conducted in 1932, with the latest update of the population figures made in 1964 based on civil status registers within the Ministry of Interior.<sup>4</sup> Furthermore, none of the data from national surveys conducted since 2004 are publicly available, including the 2018/19 labor force survey. The lack of data at the cadastre level was another challenge, and no publicly accessible socioeconomic data on Beirut and Mount Lebanon's cadastres could be used for benchmarking purposes.

#### Table 1: Sample Size by Geographic Area

Methodology and Descriptives Based on the scarcity of data, the sixth wave of the United Nations Development Programme's (UNDP) Regular Perception Survey, captured in 2019, was used to rake and reweight the sample. UNDP's survey is nationally representative with 5,000 respondents across the country, 1,826 of which were from the governorates of Beirut and Mount Lebanon. The current survey and UNDP's survey both defined key variables such as age, gender, and education status similarly, with both surveys also capturing the number of household members and number of rooms used for sleeping. The poststratification calibration weight relied on a two-step approach. First, a design weight was computed. While the current survey relied on a nonprobability sample, it is similar to a random sample drawn without replacement. Second, a calibration weight was calculated based on the following variables: Gender, age, zone, household size, number of rooms, and educational attainment. For a lengthier discussion of the weighting methodology used, please see Annex 1.

Upon reweighting, wealth indicators available in the survey (home and car ownership, number of rooms per person, employment status, monthly income, and level of education) were used to construct a relative wealth index, from which wealth quartiles were constructed (see Annex 2). These quartiles reflect differences in relative wealth within the areas covered by the survey. It suggests that Zones 2 and 3 and the North-Eastern suburbs of Beirut were relatively better-off prior to the explosion. The Southern suburbs housed relatively poorer people. More than half the population in the Southern suburbs is classified as belonging to the poorest quartile, as opposed to 11 percent in the North-Eastern suburbs.

Variables capturing physical impacts (minor, medium, or major injury; death of immediate relatives, extended family or friends) and property damages (housing and cars) were combined using principal component analysis to construct an impact index (see Annex 3). The index indicates the devastating impact of the explosion and shows how this impact differs across the seven zones identified (as described in the following section).

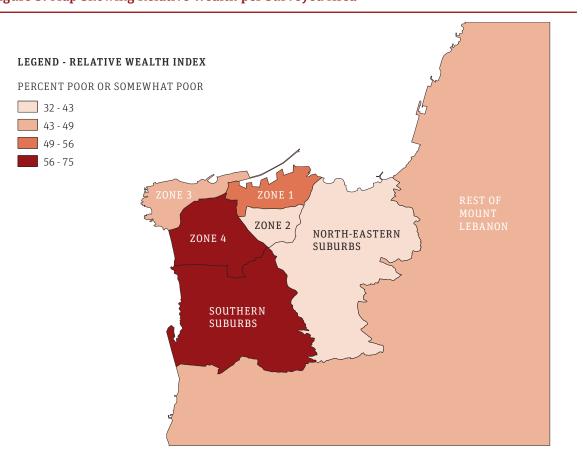
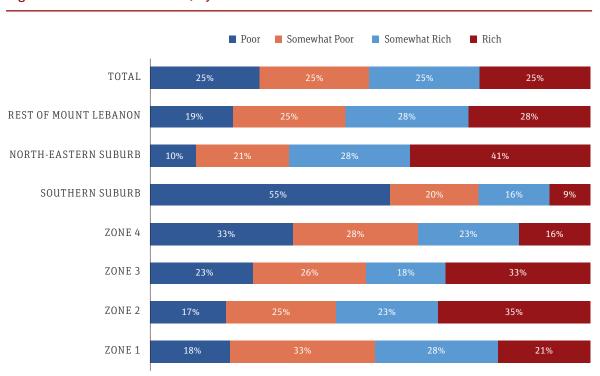


Figure 3: Map Showing Relative Wealth per Surveyed Area

Income wise, in the Southern suburbs, the median household income lies between 1 and 2 million Lebanese pounds LBP. In Zone 1, the median household income lies between 2 and 3 million LBP, and, in Zones 2 and 3, it is between 3 and 4.5 million LBP.<sup>5</sup> While Zones 2 and 3 have a relatively small share of poor residents, Zone 1 is socioeconomically mixed. Of note, exposure to damage is reported to be somewhat higher among the poor compared to the wealthy.

Looking at the overall household wealth status, the figure below indicates that there are comparatively fewer wealthy households in Zone 1, which is the worst affected zone due to its proximity to the explosion. Poor and somewhat poor households account for half of the households in the same zone. In Zone 2, which is also close to the epicenter of the explosion, cumulatively 60 percent of households were in the somewhat rich and rich wealth categories. Respondents from the Southern suburbs are less likely to have a university education, are more likely to work as daily laborers, or to be unemployed.



#### Figure 4: Wealth Distribution, by Zone

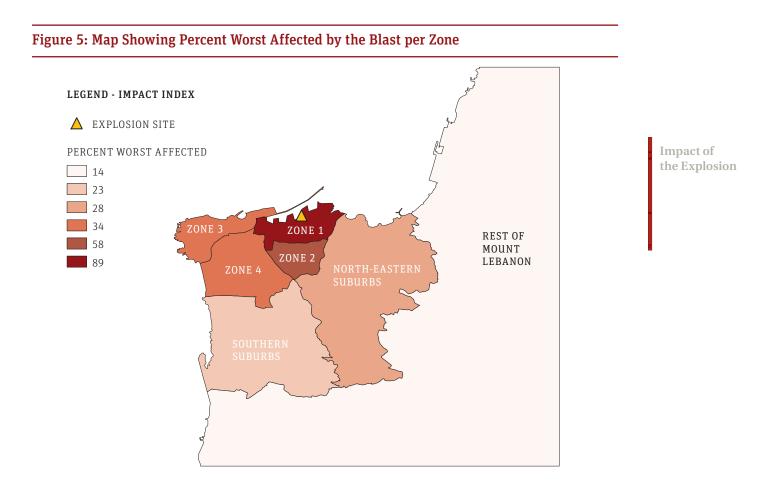
Respondents who expressed other needs or concerns were asked to specify these. The open-ended responses were analyzed using qualitative data analysis software, thus allowing for an additional layer of insights. In particular, these responses elucidated volunteer initiatives, key concerns and assistance needs, and reasons why some individuals have not registered for assistance. Throughout the report when discussing qualitative findings, the percentages will refer to the percent of respondents who discussed a theme out of only those respondents who wrote a free text response.

By giving the survivors of this crisis the opportunity to express how they have been impacted, along with their needs and concerns, this survey provides much-needed insights which can help direct the relief and reconstruction efforts.

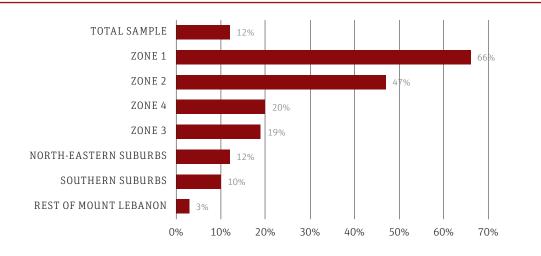
Methodology and Descriptives

<sup>5</sup> Nominal income unadjusted for inflation is reported.

# IV. Impact of the Explosion







At the port and its surrounding areas (Zone 1), where almost all respondents reported material damage and physical harm, the impact index is the highest. Two-thirds of respondents in Zone 1 have been displaced and now reside elsewhere, often with friends and family. While Zone 1 was hit the hardest, respondents in Ashrafieh (Zone 2) also reported a heavy toll from the explosion. This is illustrated by only one percent and three percent of the respondents from the respective zones reporting no damage to their residences. In Zone 1, nearly half the respondents reported that their residence suffered major or structural damages. In Zone 2, nearly 72 percent of respondents reported major damages.

In Zones 3 (Ras Beirut and surrounding areas Minet el-Hosn, Ain el-Mreisseh, and Beirut Central District) and 4 (Zoukak el-Blatt, Mazraa, Bachoura, and Moussaytbeh), the damage to residences and people was still major, but to a slightly lesser extent than what was reported in Zones 1 and 2.

Respondents in the Southern suburbs, by contrast, reported to be less affected. Around 12 percent indicated that their residence sustained more than minor damage, and less than 10 percent reported having been displaced since the explosion. A similar trend can be observed for the rest of Mount Lebanon.



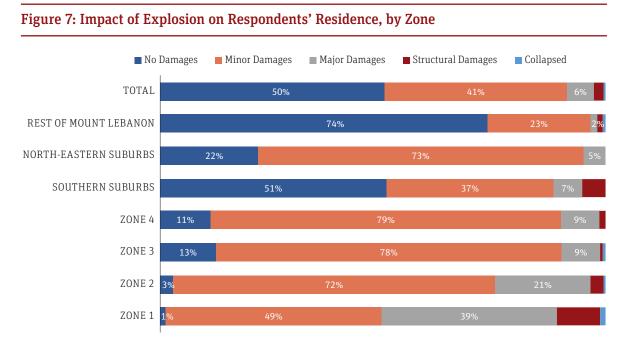
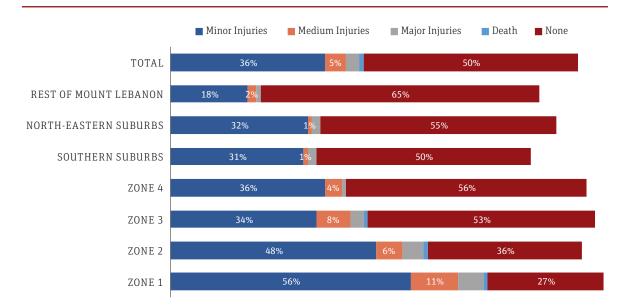


Figure 8: Personal Injuries and Deaths (of at least one household member), by Zone



Note: Respondents could select multiple options, thus more than 100%.

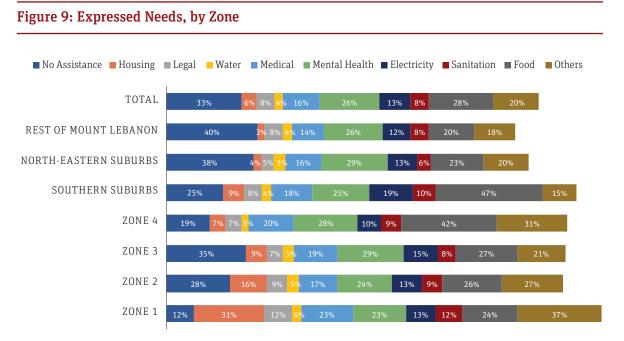
Beyond the impact of the explosion on buildings, respondents also reported the various levels of casualty they experienced. While death of household members was limited across zones, nearly three-fourths of respondents in Zone 1 reported minor, medium or major injuries. Across other zones, minor injuries and no injuries were common.

# V. Expressed Needs and Concerns

### Needs

When asked about most pressing needs, responses differed by zone. Respondents from the hardest hit Zone 1 expressed the most needs, followed by the Southern suburbs despite the distance from the blast. This possibly emphasizes that the Southern suburbs needed more assistance pre-blast.

Respondents from all zones stressed the need for mental health support, and most zones indicated access to food as an urgent need with lower rankings for North-Eastern suburbs and rest of Mount Lebanon. Housing was, unsurprisingly, mostly raised in Zones 1 and 2, as can be seen in the figure below.



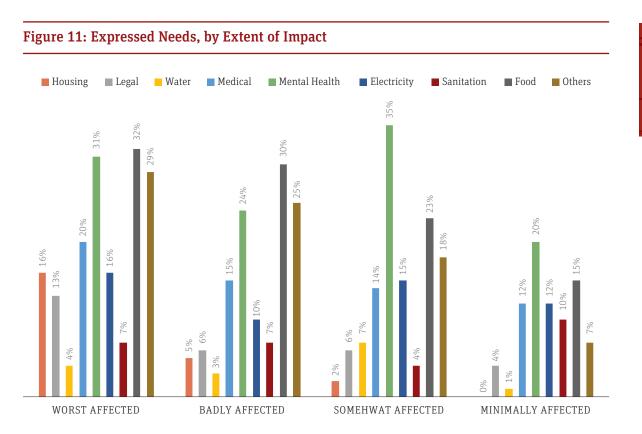
Note: Respondents could select multiple options, thus more than 100%.



Figure 10: Expressed Needs, by Wealth Categories

When we look at the needs across wealth categories, we see that the poor have an overwhelming need for food relief followed by medical needs. Mental health emerged as another pressing need that cut across wealth categories. Seen through a gender lens, we found that women indicated medical

and mental health needs more than men, whereas men identified food assistance and legal services as a greater need than women. Given the multiple shocks that Lebanon has faced over the past year, particularly inflation, food assistance has emerged as a salient need. Following the port explosion, several fears around importing food products also arose, in addition to the availability of bread as the port housed the country's main grain silo.



#### Comparing Lebanese and Non-Lebanese Needs

While 35 percent of Lebanese reported not needing any assistance, only 18 percent of non-Lebanese reported the same. 64 percent of non-Lebanese expressed the need for food assistance, while only a quarter of Lebanese shared the same need. Non-Lebanese shared the same need. Non-Lebanese also conveyed greater need for housing (15 percent) than Lebanese (five percent). Furthermore, approximately threequarters of non-Lebanese belonged to the least well-off quartile in the relative wealth index, highlighting their pre-explosion vulnerability. Across categories of how badly the explosion impacted the respondents, food, mental health, and medical needs were most frequently identified as the top requirements for those who have been worst affected, mirroring the findings from the wealth categories above. Mental health needs appear to be more prevalent among the somewhat affected as compared to the worst and badly affected, albeit still at a high level.

Men and women reported comparable needs, with women expressing a five-percentage point higher need for mental health services. Approximately a third of both men and women reported that their household does not require any assistance. In terms of most reported needs, men and women both noted that mental health and food services were the top two needs; however, men placed food as the top need, while for women mental health came first. While only

five percent of women reported a need for legal services, 11 percent of men conveyed the need for such services. Across age groups, those aged between 18 and 29 were more likely to state that their households did not require any assistance. Respondents under the age of 40 were more likely to express the need for mental health services, whereas those over the age of 50 were more likely to need medical assistance.

Expressed Needs and Concerns

#### 66 Please help us get out of here! >>

Of the 20 percent of respondents who expressed other needs, we note that general repairs and reconstruction were cited as a top assistance need (175 respondents), in addition to 110 respondents needing specific repairs for their homes. Financial and livelihood needs were also expressed by 165 respondents. 55 respondents list emigration as their top need: "We are a family of three and soon of four since my wife is 9 months pregnant, so a visa to get out of this hell will be a great help. Please help us get out of here!" wrote a man from the North-Eastern suburbs. 55 others needed job security and employment opportunities. Respondents from Zone 1 mostly indicated needs regarding repairs and reconstruction of homes (42 percent). A woman from Zone 1 describing her reconstruction needs said: "Building structure was damaged and needs to be fixed. Damage in house as well as my husband's office. Windows, doors and electrical appliances were heavily damaged. Furniture and other damages." Women mostly stated needing assistance for repairs and reconstruction (64 percent), while men mostly discussed their will to emigrate (72 percent). Emigration was also mostly evoked by those aged 30-39 (36 percent) as well as those aged 40-49 (31 percent), more so than younger, university-age respondents just about to enter the job market. "We need emigration for me and my pregnant wife," wrote a man from Zone 2.

#### Figure 12: Word Cloud of Expressed Assistance Needs



The table in Annex 4 outlines the various themes mentioned by the 865 respondents who chose to elaborate further on their assistance needs.

## Concerns

The main concerns of respondents were regarding exposure to COVID-19, security (personal and belongings), food prices, and healthcare. Other concerns related to healthcare were also raised, including air quality, toxic dust, and disease outbreak.

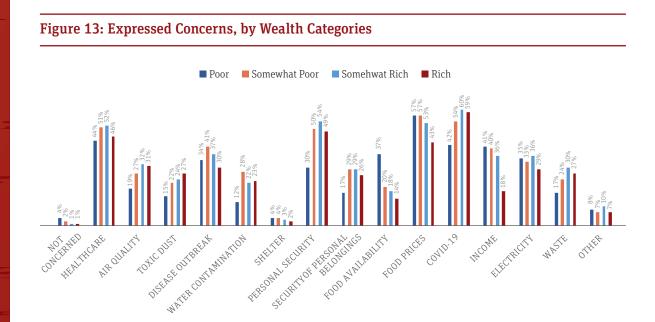
| Table 2: Respondents' Concern Distribution Across Zones |        |        |        |        |                     |                              |                             |
|---|--------|--------|--------|--------|---------------------|------------------------------|-----------------------------|
|   | Zone 1 | Zone 2 | Zone 3 | Zone 4 | Southern<br>Suburbs | North-<br>Eastern<br>Suburbs | Rest of<br>Mount<br>Lebanon |
| None  | 1      | 1      | 2      | 0      | 2                   | 2                            | 1                           |
| Healthcare  | 35     | 39     | 42     | 38     | 41                  | 45                           | 50                          |
| Air Quality   | 28     | 29     | 27     | 27     | 31                  | 29                           | 24                          |
| Toxic Dust  | 29     | 29     | 25     | 23     | 19                  | 26                           | 22                          |
| Disease Outbreak  | 28     | 28     | 34     | 35     | 39                  | 33                           | 37                          |
| Water Contamination                                     | 20     | 23     | 24     | 23     | 22                  | 21                           | 24                          |
| Shelter   | 11     | 9      | 6      | 4      | 6                   | 2                            | 4                           |
| Personal Security                                       | 44     | 43     | 44     | 40     | 33                  | 46                           | 45                          |
| Security of Personal<br>Belongings                      | 38     | 28     | 28     | 23     | 16                  | 25                           | 26                          |
| Food Availability                                       | 12     | 17     | 23     | 25     | 30                  | 17                           | 18                          |
| Food Prices   | 39     | 42     | 47     | 52     | 50                  | 54                           | 55                          |
| COVID-19  | 44     | 52     | 58     | 56     | 46                  | 59                           | 55                          |
| Income  | 32     | 33     | 30     | 35     | 36                  | 30                           | 35                          |
| Electricity   | 24     | 30     | 29     | 26     | 32                  | 30                           | 35                          |
| Waste   | 21     | 21     | 29     | 19     | 17                  | 28                           | 28                          |
|   |        |        |        |        |                     |                              |                             |

Table 2: Respondents' Concern Distribution Across Zones

Note: Respondents could select multiple concerns, thus more than 100%.

Certain concerns were uniform across zones, particularly concerns around COVID-19 and food prices. These could be explained by the increase in COVID-19 cases pre-blast and the impact of inflation on food prices. Women expressed more concern about air quality and toxic dust from the explosion. They were also more concerned about personal security. Men were more concerned about income, food availability, and electricity availability. While all age groups were concerned about food prices, younger respondents were more likely than older respondents to be concerned with this, with the percentage of those concerned about food prices decreasing as age increases. Similarly, younger respondents were more concerned about air quality compared to older respondents.

Expressed Needs and Concerns



#### Comparing Lebanese and Non-Lebanese Concerns

Non-Lebanese respondents were much more likely to be concerned about their food security and livelihoods. Half (49 percent) of non-Lebanese respondents were concerned about the availability of food compared to 18 percent of Lebanese. Half (48 percent) were also concerned with earning an income in the next two weeks relative to 34 percent of Lebanese. Non-Lebanese were also found to be less likely to be concerned with COVID-19. Across wealth categories, concerns mostly show similar trends, with some exceptions. On one hand, the poor are more concerned about food availability than those in the other wealth categories. On the other hand, those in the poor category were less concerned about air quality and toxic dust. While COVID-19 was a concern among the poor, it was less of a concern than it was for wealthier quartiles.

Seven percent of respondents chose to specify other concerns, which were cited in an openended answer. Of those, respondents mentioned financial need and livelihoods (51 respondents), as well as job security (33 respondents).

#### 66 God knows what else awaits us here. I don't sleep or eat normally. I think the roof will collapse on us again. I'm afraid like a little child. 99

A notable finding is that despite the fact that mental health could have been selected within closeended sections of this survey, an additional 46 respondents chose to express their concerns in openended form, possibly attesting to the importance of these concerns. "The children are seriously traumatized," wrote a man living in Zone 2. "We would like to emigrate because my children previously went through an explosion right as they were going back from school, and, after the port explosion, we became afraid to leave the house. We were very hurt psychologically and my children are demanding of me that we emigrate. My fear is to stay with my family in Lebanon," echoed a woman from Mount Lebanon. "Since the explosion, my boy wakes up from his sleep screaming 'EXPLOSIONNNN!!' My children are in bad mental shape," writes another woman in Zone 3.

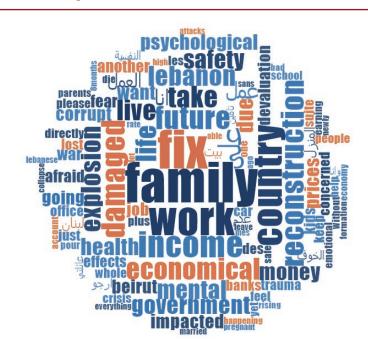
While Zone 2 respondents mostly cited concerns in relation to the reconstruction of their homes (26 percent), respondents from Mount Lebanon were mostly worried about similar incidents of violence happening again (29 percent). Women expressed more concern than men over financial need and livelihoods (58 percent), mental health (67 percent), job security and employment (52 percent), repetition of similar violent incidents (63 percent), and the reconstruction of their homes (78 percent). The corresponding table in Annex 4 illustrates some of the relevant themes coupled with statements from respondents.

While the respondents' majority expressed needing support, about 35 percent of respondents had not registered for any assistance at the time of the survey. When asked why they were not registering, 38 percent of respondents that had not registered for assistance stated that they do not believe they would receive the support, and 34 percent responded that they do not know how to register. About 17 percent of respondents had registered for food assistance. This is followed by registering for assistance with sanitation at about 10 percent.

Of the seven percent of respondents who did not register for assistance, some expressed a low level of trust in assistance and questioned (or were concerned about) its effectiveness (22 respondents). "Low trust in statements by government, no trust in authority. Any aid given by NGOs on the streets are being given away without a list or check-up if the person taking them is even from the area!! Random people are coming from all over Lebanon, taking aid boxes, then selling them in shops... BIG LACK OF ORGANIZATION... BIG CHAOS," wrote a woman from Zone 1. A man from Zone 3 expressed: "There's no reference that we consider trustworthy."

Several others cited a lack of knowledge of where and how to apply for such assistance (12 respondents). Interestingly, the majority (49 respondents) did not consider themselves to be the neediest to be prioritized, hence preferring to leave the assistance to benefit others. Over 70 percent of these respondents who prioritized assisting others were women. A woman from Zone 2 wrote: "I would rather leave it for people more in need as we have a shelter for now." While respondents prioritizing others was expected for Mount Lebanon (17 respondents) as the area was not heavily damaged, it was also recorded in Zone 2 (9 respondents), which had sustained significant damage due to the blast: "We give priority to others who have a more serious case than ours" (Woman, Zone 2). Moreover, a few respondents (5 respondents) cited being too proud or ashamed to ask for assistance: "I was hoping for a better future, and I can't bring myself to ask. There's a lot of shame." (Man, Zone 4). The table in Annex 4 outlines some of the most common themes evoked.

**cc** There are others who are more impacted, and if the international help is serious and fair, it will reach us. **99** 

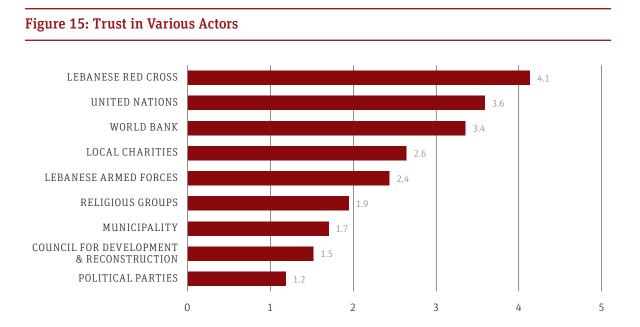


#### Figure 14: Word Cloud of Expressed Concerns

Expressed Needs and Concerns

# VI. Recovering from the Explosion

The survey asked respondents about the trust they have in different actors that can be expected to play a role in dealing with the aftermath of the August 4 events. They include international institutions like the World Bank, the United Nations (UN), and the Red Cross as well as national organizations, including non-governmental organizations (NGOs), government institutions, religious groups, political parties, and Lebanon's military. The results reveal that, on average, residents grant the international community much greater trust than local institutions. Amongst the national institutions, the public sector (political parties, Council for Development and Reconstruction, and municipalities) inspires little confidence.



Recovering from the Explosion

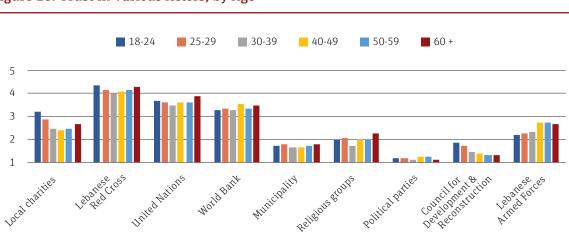
Note: Trust was rated on a scale from 1 (no trust at all) to 5 (complete trust).

#### Comparing Lebanese and Non-Lebanese Trust

The percentage of non-Lebanese respondents having "A great deal of confidence" or "Complete confidence" in the Lebanese Red Cross (62 percent), United Nations (37 percent), and the World Bank (35 percent) was markedly lower than the levels expressed by Lebanese. Notably, among the local groups listed in the survey, political parties are reportedly not trusted at all, and religious groups seem to be losing ground where residents assigned them minimal trust. More confidence is extended to local charities and the Lebanese Armed Forces. High trust is accorded to the World Bank, the UN, and particularly the Lebanese Red Cross. The latter is distinctively the institution earning the highest level of trust among all institutions listed. Some caution is warranted concerning trust levels towards the World Bank and UN because residents with unfavorable views towards these international actors might have not taken the survey.

Trust in these institutions was comparable between men and women; however, women had less trust in the World Bank Group, with 39 percent of women showing "a great deal of trust" or "complete trust" in the organization compared to 53 percent of men. Similarly, women were found to be five percentage points less trusting of the UN. Women also had less trust in the Lebanese Armed Forces. 17 percent of women had "a great deal of trust" or "complete trust" in the army relative to 29 percent of men. About a fourth of women had trust in local charities compared to a fifth of men. These findings highlight the need for development organizations to develop clear and transparent communication channels with residents in order to ensure their work reflects the needs and aspirations of the local population. Communication products should also be tailored to specific audiences.

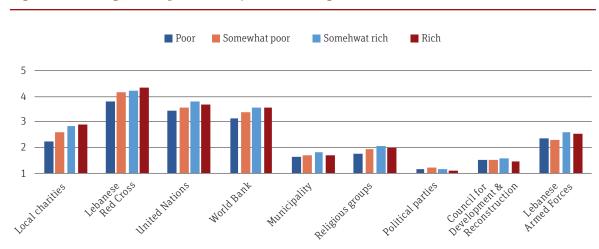
#### **Figure 16: Trust in Various Actors, by Age**



Note: Trust was rated on a scale from 1 (no trust at all) to 5 (complete trust).

Trust in the Red Cross and international institutions is generally uniform by age and zone, with some variation of trust in local organizations, religious groups, the government's Council for Development & Reconstruction, and the Lebanese Armed Forces. Local charities and the Red Cross stand out with youth (18 to 24 years old) trusting them slightly more than other age groups. This age gap is also present when it comes to entrusting the government's development and reconstruction council. An exception to this trend is the age variation in trust received by the Lebanese Armed Forces. Older age groups (40 years old and above) trust the military more compared to the younger generations. These findings on trust, stratified by age, indicate that the up-and-coming Lebanese youth might trust local non-governmental and governmental institutions somewhat more than older cohorts; however, the older respondents offer more trust to the republic's army compared to their younger counterparts even though their reported level of trust is moderate.

Respondents from the Southern suburbs have less (but still high) trust in the Red Cross, the UN, and the World Bank. On average, levels of trust in formal institutions are lowest in the Southern suburbs, followed closely by Zones 3 and 4.



#### Figure 17: Average Trust per Actor, by Wealth Categories

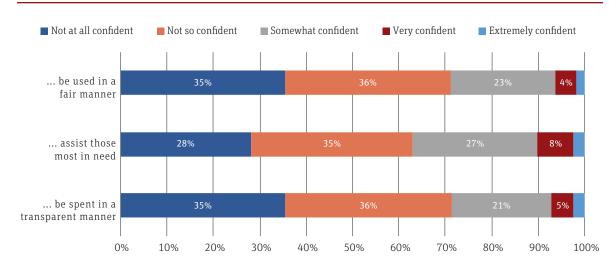
Note: Trust was rated on a scale from 1 (no trust at all) to 5 (complete trust).

Beirut

Residents' Needs and

Perception Survey Across wealth categories, similar trends are observed. Residents considerably trust the international community and, most notably, the Lebanese Red Cross, as compared to public institutions and, specifically, political parties. The poor form the smallest segment to trust almost all institutions, especially local charities, the UN, and the World Bank. However, the poor report more trust in the Lebanese Armed Forces than in local charities unlike the other wealth categories.

The lack of confidence in institutions carries over into a lack of confidence in how money for recovery will be spent. Asked to rate their confidence in three statements that measured transparency, equality, and fairness of recovery assistance, respondents overwhelmingly expressed their lack of confidence that money committed for recovery will "be spent in a transparent manner," "assist those most in need," and "be used in a fair manner." In all instances less than 10 percent were very confident or extremely confident that the money would be spent well. No noticeable differences were observed by gender, with both men and women reporting low levels of confidence in how aid will be used. These perceptions of inequity and lack of transparency could fuel conflict and mistrust; thus, attention should be given to ensure equitable distribution of assistance, particularly in reaching those most in need.

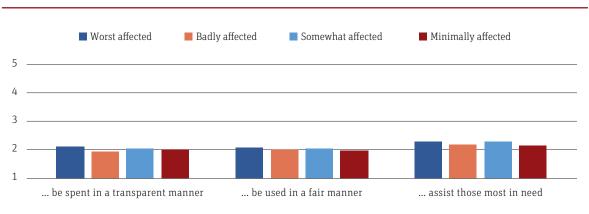


#### Figure 18: Confidence in Usage and Spending of Recovery Assistance

While distrust in the proper management of funds was clear among all age groups, those aged 30 to 49 years old exhibited the least confidence, likely because this generation witnessed the mismanagement of funds for recovery from the 1975-1990 civil war, during which they were born and raised. In contrast, although still dubious, those aged 18 to 29 years old seem to be slightly more confident than other age groups that funds will be spent impartially and with priority to the neediest.

Recovering from the Explosion

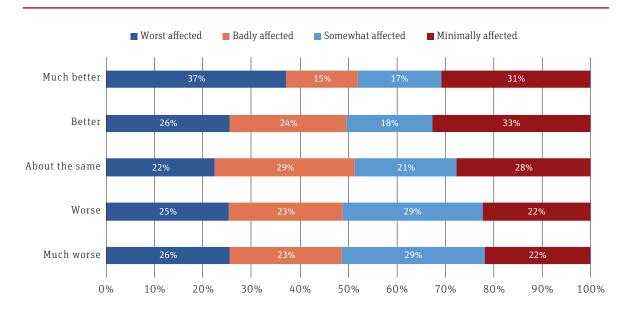
## Figure 19: Average Confidence Levels About Usage and Spending of Recovery Assistance, by Impact Quartiles



Note: Confidence was rated on a scale from 1 (not at all confident) to 5 (extremely confident).

Despite low levels of trust across all impact categories, those most negatively impacted by the blast exhibited slightly higher confidence levels in how money for recovery will be spent fairly and for those most in need. Similarly, this sub-population makes up the majority of those who believe that the situation in Lebanon will be much better five years from now (37 percent).

## Figure 20: Respondents' Perceptions on the Situation in Lebanon in Five Years, by Impact Quartiles



# VII. Looking Towards the Future

#### No rea Beirut Residents' be

Needs and

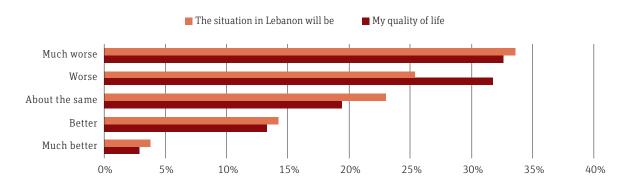
Perception

Survey

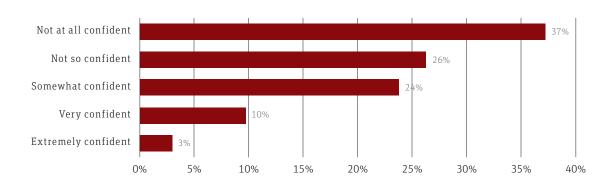
Comparing Lebanese and Non-Lebanese Outlook Towards the Future

Non-Lebanese were found to be relatively more hopeful than Lebanese respondents, with 30 percent stating that the situation in Lebanon will be either "better" or "much better" in five years compared to 17 percent of Lebanese. While 16 percent of Lebanese felt their quality of life would improve in five years, 22 percent of non-Lebanese expressed the same. Unsurprisingly, perhaps given the multiple crises affecting the country, respondents' attitudes towards the future are largely pessimistic. Only about 13 percent of respondents are either "very confident" or "extremely confident" that the August 4 explosion will lead to greater unity in the country. Confidence levels barely differ by zone, gender, or income level. Confidence is particularly absent amongst those aged between 30 and 50 and is highest amongst the youth (those aged 18-24). Even for this young group, fewer than one in four are very confident or extremely confident that the country will come together.

#### Figure 21: Distribution of Respondents' Prospects for the Future

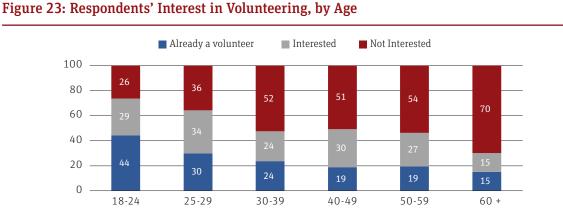






Expectations for the future are, therefore, overwhelmingly negative. Only one in six residents is confident that the blast will lead to greater unity in Lebanon. A majority believes that the situation in Lebanon and their quality of life will be worse five years from now. Less than four percent predict that the situation will be much better in five years. The only upside seems to be that youth (those under the age of 30) are amongst the most optimistic, with over 35 percent expressing that their quality of life will be better five years from now.

Despite the bleak outlook and lack of trust in their leaders, many respondents have refused to give up and have turned to volunteering. A quarter of respondents stated that they have volunteered to assist in the aftermath of the explosion. It is noteworthy that volunteering seems to have become a common activity among the youth, with approximately 44 percent of young adults aged 18 to 24 voluntarily lending a hand to rehabilitate Beirut or being interested in doing so.



Men and women were equally likely to mention they volunteer. Respondents in the North-eastern suburb and rest of Mount of Lebanon were more likely to volunteer. One-quarter respondents' qualitative answers have demonstrated a variety of organizations and initiatives they are volunteering with, including civil society organizations, local and international non-governmental organizations, scouts, religious and community groups, unions and committees, private businesses, and personal initiatives. Most efforts have focused on volunteering with an NGO or charity that was helping the affected (159 respondents). These community relief efforts have involved, among others, food distribution; the cleaning of streets and houses; providing mental health services; donation drives; reconstruction and linking affected residents with suppliers and contractors; and providing medical assistance. The most prevalent volunteering efforts have been helping with the cleanup and removal of debris (233 respondents).

Men and women had relatively comparable answers regarding the type of assistance they offered, with the exception that more than 76 percent of food donations and more than 71 percent of cash and in-kind donations were offered by women. Looking into overall volunteering by age, we find that the age bracket citing the most volunteering was 30 to 39 years old (29 percent of respondents), followed by ages 40 to 49 (21 percent of respondents). Yet, younger respondents aged 18 to 24 tended to have helped through the scouts (57 percent of respondents in this age group) and through the Lebanese Red Cross (29 percent of respondents). Most volunteering and relief efforts were cited by respondents from the Mount Lebanon zone (24 percent of respondents), followed by Zone 2 (19 percent of respondents). In addition, volunteering was relatively evenly spread across income groups, with the exception that the highest income groups (more than 6,000,000 LBP) volunteered the least. The table in Annex 4 outlines the most common forms of volunteering and assistance that were cited by respondents.

## 

#### Figure 24: Word Cloud of Volunteering

Looking

Towards the Future

## VIII. Conclusion and Recommendations

The blast in Beirut hit communities already grappling with multiples crises, where many layers of vulnerability were latent. Immediate humanitarian assistance is undoubtedly helping disasterstricken residents. However, as time passes since the blast, challenges remain with respect to livelihoods, reconstruction, healthcare, and post-traumatic recovery.

The survey found that the blast has added additional pressures to residents of Beirut and surrounding areas. These pressures were felt by residents of all socioeconomic classes and particularly affected those who were more likely to be vulnerable before the blast. The survey's main findings follow:

- While Zone 1 was heaviest hit, the explosion affected all of Beirut, and reached both suburbs and parts of the rest of Mount Lebanon.
- Mental health support was found to be a priority for residents; women, in particular, expressed this need. Food assistance was similarly articulated as a major need, particularly among those less wealthy and non-Lebanese. Housing was a top need mostly raised in Zones 1 and 2.
- Despite the various crises the country is facing, residents of Beirut and Mount Lebanon were most concerned about COVID-19. Inflation and fear that Beirut's port will be inoperable following the blast possibly led residents to worry about food prices. Women were also found to be concerned about the air quality following the blast. Non-Lebanese and vulnerable residents were found to have a greater worry about food prices and their ability to earn an income.
- Despite the apparent need for aid, those who require assistance but are not registered do not seem to have information on how to register for assistance (34 percent), with a further 38 percent believing they would not receive the support.
- The Lebanese Red Cross was the organization that residents trust the most with reconstruction efforts. While international organizations follow closely, apparent high levels of trust in the United Nations and the World Bank mask a multitude of residents who displayed higher than average levels of distrust towards these organizations, particularly women and non-Lebanese.
- Across all demographic factors, residents overwhelmingly lacked confidence in how reconstruction aid will be spent, with the minority of the population showing confidence that the process will be either fair, transparent, or assist those most in need.
- Residents were also pessimistic. A minority believed the situation in Lebanon and their quality of life will improve in five years. Furthermore, fewer than one in six residents were confident that the blast will lead to greater unity in Lebanon.
- Despite the perceived bleakness of their future, residents showed community solidarity, with one in four having participated in volunteering efforts following the blast. This was more pronounced amongst those aged 18-29.

To meet these needs, assistance would break new ground by offering policy packages that account for the deprivations that many well-to-do persons are now at risk of, and which can have lasting impacts on their long-term welfare and result in adverse intergenerational impacts. Shelter, food, and medicines remain an urgent need, as is helping to rebuild livelihoods. What also emerged from the survey is a major demand for programs to help respondents address the unseen consequences of the shock. Mental health and psycho-social assistance will need to be offered quickly to help residents deal with the collective trauma of August 4. Due to low levels of confidence in local and state institutions, policy responses to the crisis must also aim to rebuild trust. Transparency, inclusiveness, and finding adequate channels to promote large-scale participation are likely to be key to successful recovery. Conclusion and Recommendations The survey shows that the areas that have been hardest hit are socioeconomically mixed. Assistance programs will need to find a balance between those that have suffered the greatest material and immaterial losses, and those that, prior to August 4, were already relatively deprived. Achieving this balance will require careful coordination of aid distribution, service provision, and reconstruction projects. Attention should be paid to the need for food assistance and concerns related to increases in food prices, given that the those identified to be relatively poorer expressed a need for such assistance, as well as concern over inflation of food prices. Coordination will also allow for better targeting, reduced duplication, and transparency.

Given the current climate of dissent and low trust in government, coordination will require increased transparency and accountability. The voices of residents will need to be heard and reflected in decision making, requiring continuous feedback loops for residents and well-designed monitoring systems. Many residents are ready to play their part and refuse to make themselves dependent upon external organizations, including national or international agencies. Although their perceptions of the future are bleak, respondents indicated their engagement in volunteering efforts, and many are ready to provide further feedback in future surveys and have shared their contact details with the survey team. This will be of great help as multiple channels need to be exploited to facilitate transparency and accountability in what is otherwise a data-deprived environment. Direct channels could include regular pulse surveys, centralized and transparent grievance redress mechanisms, and an online platform to crowdsource priorities and facilitate collective problem-solving.

At the same time, the lack of official statistics needs to be addressed. In the absence of nationally or area-specific representative data, it will be difficult to monitor the impacts of recovery and reconstruction. A new data strategy is needed to ensure that all the response measures are evidence-based and fairly implemented. Based on the synthesis of these findings and conclusions, the following recommendations should be considered concerning reconstruction efforts in Beirut:

- Reconstruction, humanitarian, and development projects should be inclusive in their targeting. Whilst the port explosion impacted the most those residing closest to the port, development and humanitarian actors should take into account the needs of those who were vulnerable before the explosion.
- There is an appetite and need for mental health programming following the explosion.
- The evolution of food prices needs to be closely monitored, and this effort should include residents and promote clear feedback loops with them. Relevant avenues should be designed using participatory methods.
- Humanitarian and aid agencies should design information material about relief efforts, and how to access aid that is accessible to all residents and that clearly explains selection criteria.
- International reconstruction and recovery programs should be designed with transparency and fairness first. Participatory methods and feedback loops can assist in increasing residents' confidence that aid is being used fairly and transparently. International organizations can take advantage of the large networks of volunteers that have been coordinated following the blast to ensure that these mechanisms are in place.
- Further data collection efforts should also ensure that the specific needs of vulnerable groups, including women and girls and non-Lebanese residents, are recognized and captured. As crises can have a differential impact, particularly on the more vulnerable, identifying and measuring this impact is essential to inform adequate responses to existing and evolving needs.

# IX. Appendices

### Annex 1 – Methodology of the Calibration Weight

The analysis draws on data from a web-based survey of 3,416 respondents with complete information of key socio-demographic variables; the participants in which were recruited through web ads geotargeted to residents in Beirut and its vicinity. The design of the post-stratification calibration weight seeks to provide estimates that lie within the boundaries of known population values of characteristics consisting of sex, age, area of residence (zone), household size, number of rooms, and educational attainment. It relies on a two-step approach as follows:

- 1. Computation of a design weight. The design weight is the inverse of the sampling fraction in either of the seven zones representing the universe of survey. The sampling fraction is the number of respondents in each zone divided by the relevant population size. Although it is a nonprobability sample, this step is motivated by the fact that the realized sample can be likened to a random sample drawn without replacement, where selection of the participants might not be independent.
- 2. Computation of a calibration weight. The calibration weight seeks to match the survey results to known population characteristics along the six dimensions mentioned above, with Wave Six of UNDP's Regular Perception Surveys being the reference data source. Variables used for calibration are defined consistently across the two datasets. Table 1 below presents the fit of the calibration exercise. The worse discrepancy is observed for educational attainment, with the gaps between target proportions and recalibrated ones not exceeding three percentage points. This is probably due to the fact that the weights have been trimmed to avoid excessively high or low values. The lower bound of the weight is set to the minimum of the design weight, while the upper bound is the 99<sup>th</sup> percentile on a calibration weight generated through unconstrained optimization. The overall pattern in the Table indicates that the analytical (calibration) weights adequately help to produce estimates that are comparable to those from a representative survey of the target population (residing in the seven study zones).

|                               | Representative for Beirut | Web-based survey respondents |                  |  |  |
|-------------------------------|---------------------------|------------------------------|------------------|--|--|
| Respondent<br>Characteristics | % (Col)                   | unweighted % (Col)           | Weighted % (Col) |  |  |
| Age                           |                           |                              |                  |  |  |
| 18-24                         | 16.3                      | 9.3                          | 16.3             |  |  |
| 25-29                         | 16.4                      | 13.6                         | 16.2             |  |  |
| 30-39                         | 24.8                      | 27.3                         | 24.8             |  |  |
| 40-49                         | 21.2                      | 23.0                         | 21.3             |  |  |
| 50-59                         | 14.8                      | 16.9                         | 14.8             |  |  |
| 60+                           | 6.5                       | 10.0                         | 6.6              |  |  |
| Gender                        |                           |                              |                  |  |  |
| Male                          | 50.1                      | 44.2                         | 50.0             |  |  |
| Female                        | 49.9                      | 55.8                         | 50.0             |  |  |
| Household size                |                           |                              |                  |  |  |
| 2 or less                     | 14.2                      | 21.7                         | 14.0             |  |  |
| 3                             | 18.1                      | 19.4                         | 18.1             |  |  |
| 4                             | 32.4                      | 26.2                         | 33.2             |  |  |
| 5 or more                     | 35.3                      | 32.7                         | 34.7             |  |  |
| Rooms (mean)                  |                           |                              |                  |  |  |
|                               | 9.0                       | 15.6                         | 8.3              |  |  |
|                               | 60.1                      | 43.9                         | 60.8             |  |  |
|                               | 30.5                      | 31.0                         | 29.6             |  |  |
|                               | 0.4                       | 9.5                          | 1.2              |  |  |
| Area of residence             |                           |                              |                  |  |  |
| Zone 1                        | 4.0                       | 12.6                         | 3.9              |  |  |
| Zone 2                        | 4.3                       | 20.7                         | 4.3              |  |  |
| Zone 3                        | 1.9                       | 9.1                          | 2.0              |  |  |
| Zone 4                        | 12.3                      | 20.9                         | 11.9             |  |  |
| Southern Suburbs              | 17.0                      | 6.0                          | 17.0             |  |  |
| North-Eastern Suburbs         | 8.2                       | 14.3                         | 9.1              |  |  |
| Rest of Mount Lebanon         | 52.2                      | 16.6                         | 51.8             |  |  |
| Education                     |                           |                              |                  |  |  |
| Less than high school         | 23.3                      | 11.1                         | 20.0             |  |  |
| High school                   | 15.4                      | 14.1                         | 16.1             |  |  |
| Higher education              | 61.2                      | 74.8                         | 63.9             |  |  |
|                               |                           |                              |                  |  |  |

#### Table 3: Sample Description, Comparing the Fit of the Post-Stratification Calibration

### Annex 2 – Wealth Index

We created a wealth index to understand the vulnerability of the population before the explosion. The wealth index is a relative representation of their status and not an absolute representation.

For this purpose, we looked at the following variable:

- a. **Home ownership**: This was recorded as a dummy variable with 1 signifying ownership.
- b. **Car ownership**: This was recorded as a dummy variable with 1 signifying ownership.
- c. **Per capita room availability in family**: This was calculated as a continuous variable computing the number of rooms available for sleeping per member of the household
- d. **Employment status**: This was recorded as a dummy variable with 0 signifying those who are unemployed or out of the labor force
- e. **Avg. monthly income:** This was recorded as an ordinal categorical variable recording the following income ranges
  - Less than 500,000 LBP
  - 500,000 1,000,000 LBP
  - 1,000,000 2,000,000 LBP
  - 2,000,000 3,000,000 LBP
  - 3,000,000 4,500,000 LBP
  - 4,500,000 6,000,000 LBP
  - More than 6,000,000 LBP
- f. **Education:** This was recorded as an ordinal categorical variable with the following classifications
  - Less than High School
  - High School
  - University or above

We used the principal component analysis method to develop the index from the above variables. The index was then broken down into four quartiles signifying *poor, somewhat poor, somewhat rich, and rich.* We generated two classifications using quartiles, using population weights and household weights.

#### -> tabulation of q\_wealth\_pop

| q_wealth_pop             | Freq. | Percent | Cum.   |
|--------------------------|-------|---------|--------|
| poor                     | 485   | 18.10   | 18.10  |
| somewhat_poor            | 656   | 24.49   | 42.59  |
| <pre>somehwat_rich</pre> | 655   | 24.45   | 67.04  |
| rich                     | 883   | 32.96   | 100.00 |
| Total                    | 2,679 | 100.00  |        |

#### -> tabulation of q\_wealth\_hh

| q_wealth_hh              | Freq. | Percent | Cum.   |
|--------------------------|-------|---------|--------|
| poor                     | 511   | 19.07   | 19.07  |
| somewhat_poor            | 653   | 24.37   | 43.45  |
| <pre>somehwat_rich</pre> | 665   | 24.82   | 68.27  |
| rich                     | 850   | 31.73   | 100.00 |
| Total                    | 2,679 | 100.00  |        |

### Annex 3 – Impact Indices

We created another set of indices which measured the extent of impact on material and humanphysical aspects due to the explosion.

There are three indices within this set:

- a. Material Impact Index This index measures the impact of the explosion on material aspects of the population and include the following components
  - a. **Damage to residence**: This was an ordinal categorical variable with the following categories
    - No damage
    - Sustained Minor Damages
    - Sustained Major Damages
    - Sustained Structural Damages
    - Collapsed
  - b. Damage to vehicle: This was an ordinal categorical variable with the following categories
    - No damage or No vehicle
    - One or more vehicle sustained damage
    - One or more vehicle is unusable
- b. Physical Impact Index This index measures the impact of the explosion on physical aspects of the population and include the following components
  - a. Minor injury
  - b. Medium injury
  - c. Major injury
  - d. Death in immediate family
  - e. Death among extended relatives and friends

All the above variables we coded a dummy variable where occurrences take a value of -1 (as opposed to the conventionally used [+]1) to signify a negative occurrence in the index creation.

c. Combined Impact Index – This index measured the combined impact by considering all the variables within the material and physical indices above.

We used the principal component analysis method to develop the respective indices. Every index was then broken down into four quartiles signifying *worst affected*, *badly affected*, *somewhat affected*, and *minimally affected*. For every index, we generated two classifications using quartiles, using population weights and household weights.

#### -> tabulation of q\_physical\_pop

| q_physical_pop     | Freq. | Percent | Cum.   |
|--------------------|-------|---------|--------|
| worst_affected     | 1,273 | 37.54   | 37.54  |
| badly_affected     | 1,204 | 35.51   | 73.05  |
| somehwat_affected  | 650   | 19.17   | 92.21  |
| minimally_affected | 264   | 7.79    | 100.00 |
| Total              | 3,391 | 100.00  |        |

-> tabulation of q\_physical\_hh

| q_physical_hh      | Freq. | Percent | Cum.   |
|--------------------|-------|---------|--------|
| worst_affected     | 1,262 | 37.22   | 37.22  |
| badly_affected     | 1,212 | 35.74   | 72.96  |
| somehwat_affected  | 662   | 19.52   | 92.48  |
| minimally_affected | 255   | 7.52    | 100.00 |
| Total              | 3,391 | 100.00  |        |

#### -> tabulation of q\_impact\_pop

| q_impact_pop                  | Freq. | Percent | Cum.   |
|-------------------------------|-------|---------|--------|
| worst_affected                | 1,226 | 42.42   | 42.42  |
| <pre>badly_affected</pre>     | 1,020 | 35.29   | 77.72  |
| <pre>somehwat_affected</pre>  | 368   | 12.73   | 90.45  |
| <pre>minimally_affected</pre> | 276   | 9.55    | 100.00 |
| Total                         | 2,890 | 100.00  |        |

#### -> tabulation of q\_impact\_hh

| q_impact_hh                   | Freq. | Percent | Cum.   |
|-------------------------------|-------|---------|--------|
| worst_affected                | 1,199 | 41.49   | 41.49  |
| badly_affected                | 1,036 | 35.85   | 77.34  |
| <pre>somehwat_affected</pre>  | 380   | 13.15   | 90.48  |
| <pre>minimally_affected</pre> | 275   | 9.52    | 100.00 |
| Total                         | 2,890 | 100.00  |        |

### Annex 4 – Thematic Analysis of Open-Ended Questions

| Theme: Expressed<br>assistance needs | Number of<br>respondents<br>(Total = 865) | Example statement  |
|--------------------------------------|---|--|
| General repairs and reconstruction   | 175                                       | "I just need someone to come fix for me because I cannot<br>do it myself." (Woman, Zone 4)   |
| Financial need and<br>livelihoods    | 165                                       | "Afford a suitable income for getting enough food and education for my children." (Man, Zone 4)  |
| Home repairs and reconstruction      | 110                                       | "Building structure was damaged and needs to be fixed.<br>Damage in house as well as my husband's office. Windows,<br>doors and electrical appliances were heavily damaged.<br>Furniture and other damages." (Woman, Zone 1) |
| Money for repairs and reconstruction | 71  | "Money to repair the damage to our home given that<br>everything is priced in USD or in Lebanese Lira at the rate<br>of 7,000/\$." (Woman, Zone 2).  |
| Emigration                           | 55  | "We are a family of three and soon of four since my<br>wife is 9 months pregnant, so a visa to get out of this<br>hell will be a great help, please help us get out of here!"<br>(Man, North-Eastern suburbs)                |
| Job security and employment          | 55  | "We are in need of job opportunities and education for our children." (Man, Southern suburbs)  |

| Theme: Concerns                   | Number of<br>respondents<br>(Total = 268) | Example statement   |
|-----------------------------------|---|---|
| Financial need and livelihoods    | 51  | "Worried about securing money for daily expenses and to<br>pay off debts because we don't have an income anymore."<br>(Woman, Zone 4)   |
| Mental health                     | 46  | "The children are seriously traumatized." (Man, Zone 2)   |
| Job security,<br>employment       | 33  | "We are not able to work due to the economic collapse<br>and are anxious how to secure income to live and buy<br>medicines. We are all affected not only Beirut." (Woman,<br>Mount Lebanon) |
| Repetition of similar<br>violence | 24  | "Every day we live waiting for another explosion<br>because we lived through similar days and it didn't end<br>quicklyI am very scared for my family." (Man, Zone 4)                        |

| Theme: Reasons for<br>not registering for aid | Number of<br>respondents<br>(Total = 136) | Example statement  |
|---|---|--|
| Not a priority                                | 49  | "I would rather leave it for people more in need as we have<br>a shelter for now." (Woman, Zone 2)                                 |
| Low trust in assistance                       | 22  | "There's no reference that we consider trustworthy."<br>(Man, Zone 3)  |
| Don't know how and<br>where                   | 12  | "We do not know how and where to register too much spam is being shared." (Woman, Zone 3)  |
| Did not receive<br>assistance                 | 12  | "No one has come yet to lend a helping hand or to assess the damages." (Man, Zone 4)   |
| Leaving country - gave<br>up                  | 8   | "I'm traveling very soon in search for security and stability." (Woman, Zone 2)  |
| Unfair distribution                           | 7   | "Most of those who applied for assistance were denied<br>because they have a Syrian nationality." (Man, North-<br>Eastern suburbs) |
| Pride - Shame                                 | 5   | "I was hoping for a better future, and I can't bring myself<br>to ask. There's a lot of shame." (Man, Zone 4)                      |

| Theme: Volunteering                             | Number of<br>respondents<br>(Total = 741) | Example statement  |
|---|---|--|
| Street and home<br>cleanup                      | 233                                       | "I went to the site of the blast and helped clear the rubble."<br>(Man, Zone 4)  |
| NGO or charity                                  | 159                                       | "Lebanese Food Bank and helping in groups of friends."<br>(Woman, Zone 2)  |
| Food donations                                  | 86  | "Made 6,000 sandwiches, 3 times a week for people<br>who no longer have a kitchen and for the volunteers<br>who are helping clean and reconstruct Beirut."<br>(Woman, Mount Lebanon)   |
| Personal initiative, not<br>affiliated with NGO | 75  | "Personal initiative to help in my childhood neighborhood<br>in Rmeil." (Woman, North-Eastern suburbs)   |
| Donations (financial<br>and in-kind)            | 70  | "Personal donations of a lot of my belongings from<br>toys to clothes and food. Basically, everything I have<br>in my apartment that survived I've donated to multiple<br>movements and organizations helping on the ground."<br>(Woman, Zone 2) |
| Engineering and reconstruction                  | 48  | "Study of damaged buildings and report of what should<br>be done for rehabilitation for free. I'm an architect."<br>(Man, Mount Lebanon)   |
| Medical assistance                              | 38  | "I rescued people the day of the explosion." (Man, Zone 1)   |

### Annex 5 – Needs and Perception Survey Questionnaire

#### Introduction

Beirut

Residents'

Needs and

Perception Survey The World Bank Group in collaboration with donors, including the European Union and United Nations, has launched a Rapid Damage and Needs Assessment for the areas affected by the massive explosion in Beirut on August 4, 2020. This 10-minute survey with residents of Beirut and surrounding areas is to better understand the impact of recent events on community members like you. The information you provide in this survey is confidential and your participation will help inform humanitarian and development projects in the city.

#### Q1. Would you like to participate in this survey?

Yes No

#### Q2. How old are you?

Under 18 18-24 25-29 30-39 40-49 50-59 60+

#### Q3. What is your gender?

Male Female Other

#### Q4. What is your nationality?

Lebanese Syrian Palestinian Other

#### Q5. Which of the following would best describe your status?

Refugee, registered with UNHCR or UNRWA Refugee, not registered with UNHCR or UNRWA Not a refugee

#### Q6. Before August 4, 2020, where did you reside?

Beirut Northern Suburbs of Beirut Southern Suburbs of Beirut Outside of Beirut Outside of Lebanon

#### Q7a. And in which neighborhood did you reside in? [IF Q6 == Beirut]

Beirut Central District Medawar Minet el-Hosn Marfaa Ain el-Mreisseh Ras Beyrouth Zoukak el-Blatt Saifeh Remeil Moussaytbeh Bachoura Achrafieh Mazraa

#### Q7b. And in which neighborhood did you reside in? [IF Q6 == Southern Suburbs of Beirut]

Chiyah Haret Hreik Hadath Beyrouth Bourj El-Brajneh Tahouitat El Ghadir Laylakeh

#### Q7c. And in which neighborhood did you reside in? [IF Q6 == Northern Suburbs of Beirut]

Bourj Hammoud Sinn El-Fil Dekouaneh Furn Ech-Chebbak Aamaret Chalhoub Baouchriyeh Jdaidet El-Matn Fanar Deir mar Roukoz Mkalles Baabda Hazmieh

#### Q7d. And in which district did you reside in? [IF Q6 == Outside of Beirut]

Akkar El Hermel El Minieh-Dennie Tripoli Zgharta Baalbek El Koura El Batroun Bcharre Jbeil Kesrwane El Meten Zahle

Beirut Residents' Needs and Perception Survey Baabda Aley West Bekaa Chouf Rachaya Jezzine Saida El Nabatieh Hasbaya Marjaayoun Sour Bent Jbeil

Q8. Including yourself, how many people usually resided in your household before August 4? (The definition of household is: A group of persons (one or more) living together who make common provisions for food or other essentials of living.)

Specify: \_\_\_\_\_

#### Q9. Before August 4, how many rooms were used for sleeping in your home?

Specify: \_\_\_\_\_

### Q10. Have you or any member of your household experienced any of the following events as a result of this disaster? Check all that apply.

One or more household members sustained minor injuries (like a cut) One or more household members sustained medium injuries (like a broken arm or leg) One or more household members sustained major injuries (like broken ribs or injuries that required surgeries) Death of one or more household members Death of a friend/relative None of the above

#### Q11. Was your residence impacted by the August 4 blast?

#### No

Our shelter sustained minor damages (like broken glass or windows) Our shelter sustained major damages (like destroyed walls) Our shelter sustained structural damage and cannot safely be used as shelter Our building collapsed

### Q12. Were any cars or other large vehicles your household owned damaged as a result of the explosion?

We do not have any cars/vehicles One or more car/vehicle sustained damage One or more car/vehicle is unusable Cars/vehicles were not damaged

#### Q13. Have you been displaced due to the August 4 explosion?

Yes No

#### Q14. Where are you currently residing?

With friends or family inside Beirut With friends or family outside Beirut Renting an apartment inside Beirut Renting an apartment outside Beirut Shelter provided by NGO or CSO Other (please specify): \_\_\_\_\_

Q15. The international community is ready to support with reconstruction. Whom amongst the following would you entrust with coordinating the reconstruction? Please state how much trust you have in each of the following.

| 1<br>No trust at all | 2<br>Not a lot of trust | 3<br>Some trust | 4<br>A great deal of trust |   | 5<br>Complete trust |   |   |
|----------------------|-------------------------|-----------------|----------------------------|---|---------------------|---|---|
| Local charities      |                         |                 | 1                          | 2 | 3                   | 4 | 5 |
| Lebanese Red Cross   |                         |                 | 1                          | 2 | 3                   | 4 | 5 |
| United Nations       |                         |                 | 1                          | 2 | 3                   | 4 | 5 |
| World Bank           |                         |                 | 1                          | 2 | 3                   | 4 | 5 |
| The municipality     |                         |                 | 1                          | 2 | 3                   | 4 | 5 |
| Religious groups     |                         |                 | 1                          | 2 | 3                   | 4 | 5 |
| Political parties    |                         |                 | 1                          | 2 | 3                   | 4 | 5 |
| Council for Developr | nent and Reconstruction | n               | 1                          | 2 | 3                   | 4 | 5 |
| Lebanese Armed For   | rces                    |                 | 1                          | 2 | 3                   | 4 | 5 |

### **Q16.** Thinking about your family, please indicate which of the following you are currently most concerned about. [*Please only select a maximum of three options.*]

I am not concerned about any of these Access to healthcare (including access to medications) Post-explosion air quality Exposure to toxic dust from debris including asbestos Disease outbreak Water contamination Shelter (in the next two weeks) Personal security Security of my personal belongings / looting / theft Availability of food (in the next two weeks) Food prices Exposure to COVID Earning an income (in the next two weeks) Electricity Waste collection Other (please specify): \_\_\_\_

**Q17.** As a result of this disaster, do you need assistance in any of the following categories? *[Please only select a maximum of three options.]* 

We do not need any assistance Housing Legal Water Medical Mental health Electricity Sanitation Food Other (please specify): \_\_\_\_\_

#### Q18. And for which of the following have you registered for assistance with?

We did not register for assistance We do not need any assistance Housing Legal Water Medical Mental health Electricity Sanitation Food [Insert text from Other]

#### Q19. Why are you not registered for assistance? [IF Q18 == We did not register for assistance]

We do not need the assistance We do not believe they would be willing to assist us We do not know how to register Not registered yet, but we are planning to register Other (please specify): \_\_\_\_\_

#### Q20. Before the August 4 events, did you rent or own your residence?

Rent, old contract Rent, new contract Own, the residence is insured Own, the residence is not insured

### Q21. Are you or any other member of your household receiving any of the following assistance? Please check all that apply.

We do not receive any assistance Assistance from United Nations COVID-19 Support (400,000 LBP cash assistance) Assistance from NGOs National Poverty Targeting Program (Hayat Card) Other program (please specify): \_\_\_\_\_

#### Q22. What is the highest level of education you have attained?

Less than primary Primary/Elementary Intermediate/Middle school Secondary/High school University or higher

#### Q23. Please indicate how confident you are of the following:

| 1<br>Not at all confident                                 | 2<br>Not so confident | 3<br>Somewhat confiden | t Ver | 4<br>y confide | nt Ext | 5<br>Extremely confident |   |  |
|---|-----------------------|------------------------|-------|----------------|--------|--------------------------|---|--|
| Money for recovery will be spent in a transparent manner. |                       |                        |       | 2              | 3      | 4                        | 5 |  |
| Money for recovery will assist those most in need.        |                       |                        |       | 2              | 3      | 4                        | 5 |  |
| Money for recovery will be used in a fair manner.         |                       |                        |       | 2              | 3      | 4                        | 5 |  |
| This blast will lead to greater unity in the country.     |                       |                        |       | 2              | 3      | 4                        | 5 |  |

## Q24. The following questions relate to your attitude towards the future, in five years from now, that is 2025. Do you believe things will be much worse, worse, about the same, better, or much better for the following?

| 1<br>Much worse          | 2<br>Worse | 3<br>About the same | 4<br>Better |   |   | 5<br>Much better |   |
|--------------------------|------------|---------------------|-------------|---|---|------------------|---|
| The situation in Lebanon |            |                     | 1           | 2 | 3 | 4                | 5 |
| My quality of life       |            |                     | 1           | 2 | 3 | 4                | 5 |

#### Q25. Which of the following would best describe your employment before August 4?

Self employed Employed, full time Employed, part time Daily laborer Going to school/ studying Unemployed, looking for work Unemployed, not looking for work Retired Too ill to work Handicapped, cannot work Housework/childcare I don't know Other (please specify): \_\_\_\_\_

#### Q26. What has been the average monthly income of your household in the last month?

Less than 500,000 LBP 500,000 - 1,000,000 LBP 1,000,000 - 2,000,000 LBP 2,000,000 - 3,000,000 LBP 3,000,000 - 4,500,000 LBP 4,500,000 - 6,000,000 LBP Over 6,000,000 LBP

#### Q27. Have you been involved/volunteering in any private initiatives to rehabilitate Beirut?

No

I would like to join such initiatives, but I do not know who to contact Yes (please specify which initiatives you have been involved with): \_\_\_\_\_\_

### Q28. Thank you for your answers! Would you like to participate other research of this nature in the future?

Yes No

Please feel free to share this survey with anyone you think might be interested in taking part. The survey link is: *https://tinyurl.com/y49vv3yy* 

### Q29. Thank you for agreeing to participate in future research. Can we please have your email in order to reach out to you in the future?

Email Address: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Residents' Needs and Perception Survey

Beirut



WORLD BANK GROUP