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ASSESSING SHELTER & WASH CONDITIONS OF SYRIAN REFUGEES IN LEBANON

IN RELATION TO
CASH ASSISTANCE & SERVICES

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EXECUTIVE SUMMARY

This research comes amidst a rapidly declining and volatile economic, social and political situation in Lebanon. A three-fold crisis erupted in 2019, starting with the onset of a severe financial and banking crash that has led to a rapid collapse of the economy, currency depreciation coupled with subsidy removals and exponential inflation. The already critical situation was followed by the COVID-19 pandemic which aggravated strains on a crumbling health system, and was further exacerbated by the Beirut Port Blast on 4 August 2020. **These crises have impacted the lives of all Lebanon residents, especially the most vulnerable.** Today, Syrian refugee households are more socio-economically insecure than ever before and heavily reliant on assistance.

The increasingly precarious living conditions of refugees have had direct consequences across aspects of their lives—shelter, and water, sanitation and hygiene (WASH) conditions—regarded as critically affected, where assistance and provisions of humanitarian response is imperative. Internationally and in Lebanon, there has been a noticeable increase in directing aid towards both the WASH and shelter sectors in emergencies. Yet, despite the rise in interventions, the literature and assessments evaluating the effectiveness and outcomes of both WASH and shelter services, and cash-based interventions in humanitarian and development settings are limited and require further attention.

The main results of the 2020 study by the Cash Monitoring Evaluation Accountability and Learning Organizational Network (CAMEALEON) and the American University of Beirut (AUB) reveal that Syrian refugee households receiving multi-purpose cash (MPC) assistance from UNHCR and the World Food Programme (WFP) have significant and positive well-being outcomes in the long-run.[1] The findings show no notable impacts on shelter and WASH outcomes, thus the study concluded that positive shelter and WASH conditions cannot be achieved by solely relying on administering MPC assistance. A more in-depth investigation is needed to look into the different actors and stakeholders affecting shelter and WASH conditions for Syrian refugees, in addition to the effect of different services and assistance they receive beyond MPC.

Against this background, this second study has the twofold objectives of producing a granular map of WASH and shelter conditions of Syrian refugees in Lebanon, as well as investigating the factors that are associated with improved WASH and shelter outcomes for refugees. More concretely, the research aims to examine the 'cash-plus' effect—whether multi-purpose cash combined with shelter and WASH in-kind assistance have an impact on shelter, WASH and health outcomes.

The research has allowed for a comprehensive description and analysis of the shelter and WASH conditions, and challenges of Syrian refugee households living in different types of residence: informal tented settlements (ITS), residential shelters and non-residential units. The living conditions of refugees residing in ITS are widely documented but residential and non-residential shelters have not been the subject of much attention. **This is the first time that detailed research on WASH and shelter has been undertaken covering the Syrian refugee context in Lebanon**. Understanding the different dynamics at play for the types of residence allows for more targeted recommendations on programmes and interventions for WASH and shelter assistance. Moreover, gender issues were mainstreamed throughout the report and results relevant to persons with disability were highlighted when statistically significant.

KEY FINDINGS ON SHELTER

Results show that Syrian refugees are left to **face two overarching concerns, namely losing their home because they are unable to pay the increasing rental costs and rising health concerns** because of living in substandard shelter conditions. Increases in rental payments coupled with the difficult economic conditions put households at increased risks of eviction and eviction threats. Households are also forced to reside in shelters with substandard conditions that often lack durable structures (for roofs and walls) and are overcrowded. These trends are more pronounced among households living in non-residential shelters and those headed by women.

Qualitative findings reveal that the country's inflation has strained relations between landlords and tenants. Given the soaring rental prices, refugees prioritize cash assistance for rent while stressing that assistance is not enough to cover their rent. Higher eviction rates and threats of eviction were flagged by focus group respondents in line with the survey results. **Findings also highlight that the higher rent payments are forcing refugees to move from urban to rural areas and from residential to non-residential or ITS in search of cheaper rental costs.** There has been a rise in unregistered ITS that are erected without permits and in remote areas. Results reveal that households are resorting to other coping mechanisms including sharing non-residential shelters with other families to split costs. Refugee respondents also report they are unable to tackle shelter-related issues and repairs because of a decline in income, and that the nationwide fuel crisis has severely affected their electricity and water supply. **Economic pressures on many fronts have led to an increase in bonded**

[1] Chabaan et al. (2020) Multi-Purpose Cash Assistance in Lebanon: Impact Evaluation on the Well-Being of Syrian Refugees. https://aub.edu.lb/fafs/agri/aedrg/Documents/AUB Impact Study_Final_email.pdf (Accessed 1 June 2022)

labour, including child labour, as households are looking for ways to earn additional income or in exchange for shelter.

Results from the regression analysis reveal that for **all shelter types, receiving shelter assistance over and above MPC is significantly associated with improved outcomes not only for shelter but also for WASH and health.** For those living in **residential housing**, shelter assistance is associated with the following significant outcomes: more tenants have a rental agreement, lower rental expenditures, higher chance of having a flush toilet and a safe toilet. Households have a higher health expenditure, and fewer incidents of children with diarrhoea. For **non-residential households,** shelter assistance is associated with less overcrowded living conditions, higher rent expenditure and more households have durable roofs. Shelter assistance is also linked to a higher probability of having a flush toilet and less children with respiratory diseases. For **informal tented settlements**, shelter assistance is associated with less overcrowding, lower risk of eviction, plus a higher probability of having a flush toilet and safe toilet and households spend less on purchasing water.

KEY FINDINGS ON WASH

Results show that **access to water for drinking purposes is becoming a greater challenge** for all Syrian refugee households. A majority of households rely on bottled water, and due to the sharp price hikes, they are finding it increasingly difficult to afford water—especially among non-residential households, female-headed households and those with a disabled family member. Households living in non-residential shelters have serious difficulty accessing water for domestic chores because of their limited access to water networks and water trucking services. **Challenges also extend to water quality**; non-residential households, female-headed households and households with members with a disability, many of whom live in precarious conditions with limited access to WASH assistance services, are less likely to have access to improved drinking water. These households experience higher water insecurity and findings show especially high numbers among households with at least one disabled child. In terms of sanitation and hygiene, the profiling reveals that households are concerned about the safety and propriety of sanitation facilities, especially among female-headed households and refugees living in non-residential shelters and ITS. Challenges also include access to a number of general and menstrual hygiene items. In particular, female-headed households and those living in non-residential shelters have less access to menstrual hygiene products.

The qualitative analysis highlights that households are **now having to factor in the costs of water in an unprecedented manner**. Households report running out of water and having to seek alternative means of access including water tapping, refilling plastic gallons from private and informal water providers, and digging unsafe wells. Findings emphasize that the price of bottled water has also risen exponentially, and many households are having to use fuel to boil water for drinking purposes or leave water outside under the sun to purify. Results also capture an increase in waterborne diseases while the cost of treatment and medicine has also risen substantially.

Key informants regard the WASH sector as particularly challenging as significant change is dependent on structural interventions that improve Lebanon's water and sanitation, which is contingent on working jointly with the government. Since the beginning of the economic crisis, municipalities appear to be more open to NGO-led interventions with many interviewed municipality staff expressing willingness to engage in structural WASH interventions for both refugee and host community groups.

The regression analysis results provide less conclusive evidence regarding the associations between receiving WASH assistance over and above MPC, and positive outcomes regarding water, sanitation and health. This is due to the fact that households residing in residential and non-residential shelters receive virtually no WASH assistance. For households living in ITS, assistance includes three main components: hygiene kits, desludging services and water trucking, while a small proportion of residents were also supported via community sanitation projects. Positive results from community projects are likely to take several months to be observed and therefore the impact from this type of assistance would not be measurable during the period that the study covers.

OVERARCHING RECOMMENDATIONS

This study provides a number of recommendations including:

- More targeted assistance needs to be directed towards **female-headed households** that are consistently more vulnerable and show increased protection risks that are linked to reduced access to shelter and WASH services. A combination of protection cash assistance for those in dire need (cash for rent), OFC and assistance for structural shelter upgrades is recommended.[2]
- Given the extremely high inflation, any form of cash support is likely to be compromised by the economic crisis, hence, there is a need to reconsider the nature of shelter interventions and rehabilitation services, and delivery mechanisms. The shelter sector should look for non-cash interventions that aim to protect

[2] Occupancy Free of Charge (OFC) is a cash-based shelter intervention. Landlords receive an agreed amount of cash to upgrade their property, which they subsequently must offer rent-free for a year to vulnerable Syrian and or Lebanese families.

refugees' tenure and provide better tenure security. Actors should also **increase the provision of shelter in-kind programming to complement cash assistance, while delivering cash interventions in USD** instead of Lebanon's rapidly depreciating national currency.

- There is need for actors working in the WASH and shelter sectors to **broaden the scope of interventions, specifically for non-residential households** as findings reveal that they have limited access to services and are more vulnerable across most of the shelter and WASH indicators.
- The evidence suggests that an **integrated shelter and WASH response** at the household level is the most effective way to assure better shelter, WASH and health outcomes. Currently, this is easier to implement for residential and non-residential households. However, agencies managing programmes in ITS should make changes to the existing operating strategy so that a single (I)NGO is responsible for administering both shelter and WASH programmes in a specific geographic location. This will allow for better joint intervention at the local level, while coordination between MPC funding agencies, and both shelter and WASH sector actors will optimize positive outcomes from providing MPC plus other cash and in-kind assistance.

SHELTER-SPECIFIC RECOMMENDATIONS

- Given the rise in the numbers of newly erected, smaller ITS in mostly remote areas, agencies need to reconsider their current strategy of targeting only large ITS and increase their coverage of services to include them. Moreover, agencies should advocate for new ITS to be registered and issued permits.
- Interventions should prioritize critical life-saving assistance. There is **clear need to increase shelter sector cash for rent interventions** to efficiently respond to the sharp increases in rental prices; in addition to the evictions and eviction threat referrals from the protection sector.
- Protection mainstreaming and conflict sensitivity must be key priorities in the response, specifically in the shelter sector. More attention should be given to areas with repeated conflict and collective evictions to manage conflicts and dilute the reasons behind them.

WASH-SPECIFIC RECOMMENDATIONS

- Actors administering WASH assistance should target vulnerable households and provide tailored assistance. Particular focus should be given to households with disabled members, and especially those with children with a disability as they have less access to sufficient and improved water. There is also a need to provide essential hygiene and menstrual hygiene items to female-headed households and those living in non-residential and residential shelters.
- Municipalities appear to be more open to external interventions and express willingness to engage in structural WASH interventions for both refugee and host community groups. This presents an opportunity to influence national WASH policy to improve refugees' access to safe and sufficient water and adequate sanitation services (i.e. connection to networks). Actors should advocate for national water authorities to make changes to policy, developing pro-active WASH roadmaps that prioritize long-term resilience for both refugee and host communities. Priorities also need to include supporting community-centred efforts, setting up key focal points within designated areas and creating a framework to improve coordination of WASH and shelter interventions.

ACRONYMS

AUB	American University of Beirut
CAMEALEON	Cash Monitoring Evaluation Accountability and Learning Organizational Network
FGDs	Focus group discussions
IDIs	In-depth interviews
INGO	International non-governmental organization
KII	Key informant interview
LOUISE	Lebanon One Unified Interagency System for E-Cards
MPC	Multi-purpose cash
NGO	Non-governmental organization
NRC	Norwegian Refugee Council
OFC	Occupancy Free of Charge
RAIS	Refugee Assistance Information System
SMEB	Survival Minimal Expenditure Basket
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
VASyR	Vulnerability Assessment of Syrian Refugees
WASH	Water, sanitation and hygiene
WFP	World Food Programme
WHO	World Health Organization

KEY TERMS

Improved sanitation facilities: are defined as those that hygienically separate human waste from human contact. For this research, households with flush toilets or traditional pit latrines with flush were considered to have improved sanitation facilities.

Improved water sources: are defined as those that are likely to be protected from outside contamination, and from faecal matter in particular. Households are considered to have improved water access if their main water sources include: household water tap/water network, bottled mineral water, water tank/trucked water, protected borehole, spring or well, or piped water to a yard/lot.

Informal tented settlements (ITS): refer to unofficial groups of temporary residential shelters often built with plastic sheeting and timber.

Multi-purpose cash: Multi-purpose cash transfers (MPC) are transfers (either periodic or one-off) corresponding to the amount of money required to cover, fully or partially, a household's basic and/or recovery needs. The term refers to cash transfers designed to address multiple needs, with the transfer value calculated accordingly.

Non-residential shelter: refers to buildings not designed for habitation, for example, schools, factories, warehouses, active construction sites, shops, agricultural buildings, and engine or pump rooms.

Residential shelter: is accommodation designed for living and includes apartments, concierge rooms and hotel rooms.

Survival Minimal Expenditure Basket (SMEB): outlines the minimum items for survival of a household for one month. The basket comprises food and non-food items and services required for survival. The SMEB serves as a benchmark to calculate transfer values for multi-purpose cash and voucher assistance.

Water insecurity: is the lack of adequate and safe water for a healthy and productive life.

BACKGROUND AND RATIONALE

After more than a decade of conflict, Syria remains one of the world's largest refugee crises. In March 2022, 839,086 Syrian refugees were registered with the United Nations High Commissioner for Refugees (UNHCR) in Lebanon.[3] The World Food Programme (WFP) operates a multi-purpose cash (MPC) assistance programme in Lebanon. Since 2017, the programme has assisted the most vulnerable Syrian refugee households with unrestricted cash transfers to meet food and other basic needs.[4]

In 2020, research by the Cash Monitoring Evaluation Accountability and Learning Organizational Network (CAMEALEON) conducted in collaboration with the American University of Beirut (AUB) found that multi-purpose cash assistance provided by UNHCR and WFP longer term resulted in significant positive outcomes for Syrian refugee households. Recipient households were more able to meet their basic needs compared to households who did not receive MPC assistance.[5] Thus, cash-based interventions have proven to be effective tools in improving the well-being of vulnerable populations. The study, however, did not find evidence that MPC assistance resulted in better shelter, water, sanitation and hygiene (WASH) for recipient households.[6] Two recommendations followed; the need for a more in-depth analysis of the actors, stakeholders and the interplay of multiple dynamics that affect the shelter and WASH situation of Syrian refugees in Lebanon. Along with an investigation into the factors associated with better WASH and shelter conditions with a specific focus on services and in-kind assistance in addition to multi-purpose cash assistance.

This follow-up study also conducted in collaboration with AUB addresses these gaps in evidence and provides an in-depth analysis of the WASH and shelter challenges of Syrian refugees living in informal tented settlements (ITS), residential shelters and non-residential properties. Gender and disability were mainstreamed throughout the profiling study to understand whether specific vulnerable groups—female-headed households and households with a disabled family member—face more severe WASH and shelter challenges. Understanding the aspects of gender and disability, and the dynamics that are in play for different types of residence allows for more targeted programme recommendations for WASH and shelter assistance.

This study also examines whether cash transfers and in-kind assistance programmes used in combination strategically will results in positive outcomes for vulnerable populations—the 'cash-plus' effect.[7] Cash transfers are increasingly regarded by UN agencies and INGOs as a more flexible, efficient and cost-effective approach that both empowers recipients and helps strengthen local markets.[8] However, during times of unpredictable shocks and price volatility, in-kind assistance can be an instrument to deliver better WASH and shelter results for vulnerable populations.

The findings are timely in today's challenging context in Lebanon; the country is in a severe economic crisis and volatile political situation that have impacted the lives of all Lebanon's residents, especially the most vulnerable. Since the beginning of the crisis in October 2019 until April 2022, the Lebanese currency (LBP) has lost more than 92% of its value on the parallel market.[9] The cost of fuel has increased by 1814% since February 2021,[10] while the cost of the revised food Survival Minimal Expenditure Basket (SMEB) in March 2022 is more than 11 times the costs of the basket in October 2019 (1,062%).[11] The social impact of the crisis has been catastrophic; 88% of Syrian refugees now live below the SMEB,

[3] Operational Data Portal: Refugee Situations. https://data2.unhcr.org/en/situations/syria/location/71 (Accessed 23 May 2022)

[4] The WFP unrestricted cash programme forms part of a multi-agency platform; the Lebanon One Unified Inter-Organisational System for E-cards (LOUISE) that coordinates the delivery of sectoral and multi-purpose cash and voucher assistance in Lebanon.

[5] The 2020 findings showed that households benefiting from longer-term MPC assistance (more than 12 months) have higher total monthly household expenditures, lower food insecurity, more access to sufficient drinking water, higher formal school enrolment rates, more access to primary healthcare, and better mental health. Chabaan et al. (2020) Multi-Purpose Cash Assistance in Lebanon: Impact Evaluation on the Well-Being of Syrian Refugees. https://camealeon.org/impact-evaluation-on-the-well-being-of-syrian-refugees/

[6] The study observed significantly higher access to sufficient drinking water for households receiving MPC but no significant impact on other shelter and WASH outcomes. (Ibid)

[7] There is a general lack of evidence on the effectiveness of combining cash transfers and in-kind assistance beyond food security, such as providing essential drugs and WASH services. Doocey, S., Tappis, H., & Lyles, E. (2017) 'Cash-based approaches in humanitarian emergencies: a systematic review', Campbell Systematic Reviews 13 (1): 1–200. https://doi.org/10.4073/csr.2017.17

[8] Global Humanitarian Assistance (2020) Global Humanitarian Assistance Report 2020. https://devinit.org/documents/776/Global-Humanitarian-Assistance-Report-2020.pdf (Accessed 20 May 2022)

[9] Presentation by WFP on food security and market situation analysis, Food Security Sector (FSS) Working Group meeting, 10 May 2022. https://fscluster.org/lebanon/document/fsas-national-working-group-meeting-may (Accessed 3 June 2022)

[10] Consumer price index (CPI), Central Administration of Statistics, Lebanon. http://www.cas.gov.lb/index.php/economic-statistics-en

[11] Inter-agency Coordination Lebanon: Basic Assistance Working Group (BAWG) meeting minutes, 26 May 2022.

the amount of funds that ensures that a household's minimum survival needs are met.[12] Meanwhile, a very high proportion of the Lebanese population (82%) are categorized as living in multi-dimensional poverty; a near doubling from 42% recorded in 2019.[13]

Although MPC assistance has been adjusted,[14] the value of multi-purpose cash, even when combined with food assistance, has not been able to keep up with Lebanon's level of inflation.[15] In such a scenario, in-kind assistance allows donors to choose exactly which service to fund and who should benefit,[16] and can also free up money for households to purchase other essential items.[17] Finally, in-kind assistance and service programmes can be designed to help mitigate communal tensions, when government basic services fall short of needs because of limited funding and added pressures.

This analysis of 'cash-plus' findings come at a time when Lebanon's crippling economic situation is only expected to deteriorate further. Lebanon is heavily dependent on importing cereals, and both supply and prices will be impacted by the Ukraine conflict as a high proportion of wheat is sourced from Ukraine and Russia (approximately 75%).[18]

STUDY DESIGN, METHODOLOGY AND DEMOGRAPHICS

The study used a mixed-method approach combining both quantitative and qualitative data to inform the analysis. The approach consisted of a sample-based household survey of 3,956 Syrian refugee households, as well as 36 in-depth interviews (IDIs) and seven focus group discussions (FGDs);[19] the qualitative results helped the team to triangulate information and allowed for a richer analysis. FGDs were conducted with households randomly selected from those taking part in the quantitative survey. FGDs included disaggregation by gender, types of shelter and households with at least one disabled family member. The in-depth interviews were conducted with a range of different stakeholders including municipality representatives, shaweesh,[20] landlords, NGO workers (particularly shelter and WASH focal points), and targeted Syrian refugees. IDIs focused on several themes: protection, social dynamics and tensions, shelter and WASH services, COVID-19, and the role of local authorities.

Targeted locations include the Bekaa, North and Mount Lebanon governorates to detect specific geographic areas that require intervention.[21] The study was designed to disaggregate analysis of households by type of residence: households living in residential shelters, non-residential shelters or informal tented settlements (ITS). The approach also allowed for analyses of female-headed households and households with a disabled family member to understand if these households are facing specific or compounded challenges in comparison to male-headed households.

To understand the factors that determine better shelter and WASH outcomes for households that al-

[12] Ibid.

[13] The concept of multi-dimensional poverty takes into account various aspects of deprivation not limited to material dimensions. United Nations Economic and Social Commission for West Asia (2021) Multidimensional Poverty in Lebanon: Painful Reality and Uncertain Prospects. https://www.unescwa.org/sites/default/files/news/docs/21-00634-_multidimentional_poverty_in_lebanon_-policy_brief_-_en.pdf (Accessed 25 March 2022)

[14] Starting in 2020, sector partners gradually adjusted the value of MPC, food vouchers (e-cards) and Cash for Food. Government of Lebanon & United Nations. (2021). Lebanon Crisis Response Plan 2017–2021 (2021 update). https://reliefweb.int/report/lebanon/lebanon-crisis-response-plan-2017-2021-2021-update

[15] Effective as of April 2022, WFP and UNHCR transfer values have been adjusted upwards to respectively 1,000,000 LPB from 800,000 LBP for MPC assistance and 500,000 LBP per person for food. Inter-agency Coordination Lebanon: Basic Assistance Working Group (BAWG) meeting minutes, 26 May 2022.

[16] Tobin, J. (1970) 'On Limiting the Domain of Inequality', The Journal of Law and Economics 13(2), 263–277. https://doi.org/10.1086/466693

[17] Levine, S., & Bailey, S. (2015) Cash, vouchers or in-kind? Guidance on evaluating how transfers are made in emergency programming. https://odi.org/en/publications/cash-vouchers-or-in-kind-guidance-on-evaluating-how-transfers-are-made-in-emergency-programming/ (Accessed 1 May 2022)

[18]FAO (2022) The Importance of Ukraine and the Russian Federation for Global Agricultural Markets and the Risks Associated with the Current Conflict. https://www.fao.org/3/cb9013en/cb9013en.pdf (Accessed 20 June 2022)

[19] See Annex 1 for sampling and survey limitations.

[20] In informal tented settlements, a shaweesh is the person nominated by other refugees to act as the settlement supervisor and decision-maker. Turkmani, N. & Hamade, K. (2022) Dynamics of Syrian Refugees in Lebanon's Agriculture Sector. https://bit.ly/3RWv8jc (Accessed 1 June 2022)

[21] The sampling methodology for this research included the extraction of a random sample in the Bekaa, North and Mount Lebanon and hence is representative at the level of Syrian refugee households in these regions. The study's results are comparable to those of VASyR, which is representative of the Syrian refugee population in each region of the country. UNICEF, UNHCR, WFP. (2020) Vulnerability Assessment of Syrian Refugees in Lebanon 2020 (VASyR), September 2020. https://reliefweb.int/report/lebanon/vasyr-2020-vulnerability-assessment-syrian-refugees-lebanon (Accessed 23 May 2022)

ready receive multi-purpose cash (MPC), the study employs a regression modelling approach to analyse factors—both assistance and household factors—to understand which are associated with better shelter and WASH outcomes for Syrian refugee families.[22] In short, the study looks at the 'cash-plus effect', exploring whether combining service or in-kind and multi-purpose cash assistance can achieve improved WASH and shelter outcomes.

The average Syrian refugee household consists of 4.8 members, close to the national average household size reported by VASyR (5.1 members). The largest households are those living in residential shelters and ITS with 4.9 members, while households living in non-residential shelters are, on average, significantly smaller (4.5 members). Moreover, households headed by men are on average significantly larger than female-headed households (5.3 members compared to 4.3 members).

Female-headed households make up a third of surveyed refugee households (32%).[23] Overall, 20% of households reported having at least one member in their households with a disability, 8% of which report having a child (below the age of 18 years) with a disability and 10% of households report that the head of the household has a disability. Female-headed households are significantly more likely to have a member with disability compared to households headed by a man (24% vs. 18%).

Table 1: Distribution of sample by type of residence, governorate and gender of household head

Type of residence	Bekaa	North	Mount Lebanon	Total	MHH	FHH	Total
Residential shelter	602	1,035	946	2,583	2,110	473	**2,583**
Non-residential shelter	98	326	90	514	393	121	**514**
ITS	530	309	20	859	568	291	**859**
Total	**1,230**	**1,670**	**1,056**	**3,956**	**3,071**	**885**	**3,956**

[22] See Annex 2 for more detail on the linear regression analysis.

[23] These figures are higher than numbers reported in VASyR (2021), where female-headed households comprise 18% of the population. The discrepancy is due to this study only covering three regions (Bekaa, North and Mount Lebanon) while VASyR covers all of Lebanon. Besides, these three regions include the majority of ITS where most female-headed households reside.

Photo: Charbel Kosseifi/NRC

SHELTER ANALYSIS

Lebanon's housing market has historically been saturated with unaffordable rental housing and informal tenant agreements.[24] Lebanon's non-encampment policy has forced Syrian refugees to find alternative shelter solutions through the rental market.[25] The urgent need for basic shelter pushed many Syrian families to settle in accommodation with poor conditions, and in spaces that are not designed for living (non-residential shelters) or rent land to construct non-permanent shelters.[26] The arrival of the Syrian refugees (1.5 million) led to higher competition over available housing causing rental prices to increase, which in turn, forced vulnerable families to further downgrade their shelter to more affordable options.[27]

WHY IS SHELTER OF KEY IMPORTANCE?

Shelter is especially important in terms of health and also impacts refugees' perception of safety and dignity. Overall, better shelter improves indicators of well-being and quality of life. Poor air quality and indoor air pollution are important determinants of the health and well-being of residents, and play a significant role in the development and exacerbation of respiratory conditions, allergies, asthma, among other immunological reactions that especially leave children vulnerable to disease. Housing that is poorly ventilated and prone to leakages can lead to excess moisture, which results in persistent dampness and microbial growth of mould and other allergens on interior surfaces. Dampness and mould are major causes of morbidity and mortality worldwide. Occupants living under extremely inadequate shelter conditions are also at risk of hypothermia, which has been associated with poorer health, including developing cardiovascular disease, whereas overcrowding has been linked to the transmission of infectious diseases, such as tuberculosis, and psychological distress among children and adults.

TYPES OF SHELTER

RESIDENTAL SHELTER
Accommodation designed for living and includes apartments, concierge rooms and hotel rooms.

NON-RESIDENTAL SHELTER
Buildings that are not designed for habitation, for example, schools, factories, warehouses, active construction sites, shops, agricultural buildings and engine or pump rooms.

INFORMAL TENTED SETTLEMENTS (ITS)
Unofficial groups of temporary residential shelters often built with plastic sheeting and timber.

Figure 1: Types of shelter

[24] United Nations Economic and Social Commission for Western Asia. (2017). The Demographic Profile of Lebanon Population Trends. http://apps.who.int/gho/data/node.main.MATMORT?lang=en

[25] Lebanon is not a signatory to the 1951 Convention Relating to the Status of Refugees and its 1967 Protocol, which is the main international legal instruments for the protection of the rights of refugees. In regards to shelter, this means that Lebanon does not allow for the permanent settlement of refugees and the government opposes the establishment of formal refugee camps by UNHCR, and only allow Syrian refugees to live in informal tented settlements or rent property. Turner, L. (2015) Explaining the (Non-)Encampment of Syrian Refugees: Security, Class and the Labour Market in Lebanon and Jordan. Mediterranean Politics, 20(3), 386-404. https://doi.org/10.1080/13629395.2015.1078125

[26] In 2020, VASyR estimates that 67% of Syrian refugee households lived in residential shelters, 21% in ITS; and 12% in non-residential shelters. UNICEF, UNHCR, WFP. (2020) Vulnerability Assessment of Syrian Refugees in Lebanon 2020 (VASyR), September 2020. https://reliefweb.int/report/lebanon/vasyr-2020-vulnerability-assessment-syrian-refugees-lebanon (Accessed 23 May 2022)

[27] UNHCR & UN-Habitat. (2022) Housing, land and property issues in Lebanon. Implications of the Syrian refugee crisis. https://bit.ly/3xpeFKN

Shelter interventions are therefore crucial, particularly among vulnerable groups who have difficulty accessing safe, healthy and secure homes.

FINDINGS: SHELTER CONDITIONS OF SYRIAN REFUGEE HOUSEHOLDS

More than half of the households (58%) live in residential shelters, 29% in informal tented settlements (ITS), while only 14% of surveyed households live in non-residential shelters. A higher proportion of male-headed households (67%) live in residential shelters. Significantly fewer female-headed households live in residential accommodation (46%), while a much higher proportion lives in ITS (39%), compared to 21% of households headed by a man. **This indicates that female-headed families are more shelter-vulnerable in contrast to male-headed households.**

Findings show that 20% of households live in overcrowded accommodation[28] but when broken down by type of residence, a significantly higher proportion of households living in non-residential shelter (34%) live in overcrowded conditions. Almost a quarter of households residing in ITS (23%) and 16% of households in residential shelters also experience overcrowding. **The average area per person for residential units is 13.4 m², in contrast the area in both non-residential units and ITS is significantly smaller (8.5 m²).**

Less than half of the households (42%) live in shelters with plastered and painted walls.[29] The majority of households (63%) living in residential shelters have plastered and painted concrete walls in their homes, compared to only 33% living in non-residential shelters. Only a quarter (24%) of ITS residents live in cement shelters and the vast majority of households live in accommodation with walls made of fabric or plastic sheets. None of the shelters in ITS have cement painted roofs, as accommodation with cement walls are fitted with fabric or wooden roofs. 61% of households in residential accommodation and about a third (30%) of non-residential households have cement-painted roofs.

Worries related to shelter inadequacies was reported by households living in all shelter types: **high proportions of residential (54%), non-residential (81%) and ITS (73%) households worry that their house is not safe for their family's health**. The qualitative results also point to refugees unable to maintain or fix their shelter such as broken windows, roofs, mould, thin insulation etc. because of a decline in income. Focus group participants stressed that winter temperatures combined with high fuel prices have made it more difficult to afford fuel, causing more people to suffer from respiratory diseases.

When it comes to access to power, 62% of **households report having at least 12 hours of electricity per 24 hours**, 63–64% of ITS and residential shelter residents, while less refugee households living in non-residential (49%) units say they have access to electricity for 12 hours or more. Female-headed households are worse off; 55% have electricity for 12 hours and more per day, which is 11 percentage points less than male-headed households (66%).[30] Importantly, qualitative findings highlight the sharply rising fuel and electricity costs and respondents say that they are unable to cover the costs of electricity bills or fuel needed for generators.

Table 2: Overview of shelter conditions by type of shelter

RESIDENTIAL SHELTERS	NON-RESIDENTIAL SHELTERS	ITS
16% **overcrowded**	34% **overcrowded**	23% **overcrowded**
Average **area** per person: 13.4m²	Average **area** per person: 8.5m²	Average **area** per person: 8.5m²
63% plastered and painted concrete **walls**	33% plastered and painted concrete **walls** 25% plastered (not painted) **walls** 28% raw concrete **walls**	69% **walls** of fabric/plastic sheets
61% cement painted **roofs**	30% cement painted **roof** 26% cement **roof** 26% iron/zinc **roof**	

[28] Overcrowding is defined as living in less than 4.5 meters squared per person according to VASyR 2020.

[29] Plastered and painted walls is the standard considered as a durable material for shelter.

[30] The vast majority of all surveyed households are connected to the national grid and use it as a main source of power (90%), but 43% also rely on generators.

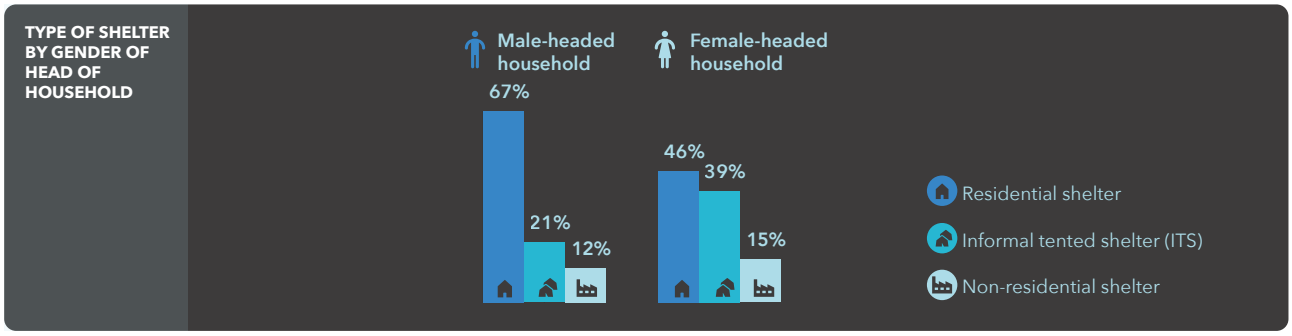

Figure 2: Distribution of households by type of residential shelter and gender of head of household

Solid waste collection services are widely available (87%) and the majority of households (73%) dispose of their waste in rubbish and recycling containers for free. It is more common for households living in ITS and non-residential shelters to either burn or dump their waste (8–12%).

As expected, households living in residential shelters have the highest monthly expenditure on rent (311,920 LBP on average), non-residential shelters cost 35% less per average monthly rent (202,482 LBP), whilst the cheapest option is residing in tented accommodation (ITS) with a monthly rent of 106,294 LBP.

Male-headed families have significantly higher monthly rent expenditure compared to female-headed households; this is especially true for residential and non-residential shelter. This aligns with other survey results that show female-headed families have overall significantly lower monthly per capita expenditure–338,426 LBP compared to 390,473 LBP.

SECURITY OF TENURE AND PROTECTION RISKS

The vast majority of households (87%), regardless of residence type, live in rented residences with direct rent payment to the landlord.[31] Importantly, **more than half (55%) of all surveyed households do not have any rental agreement, 43% have a verbal agreement**, while only a very small proportion (1.3%) have written and officially stamped rent agreements. Findings show no significant differences across the types of shelter and therefore tenure insecurity is shared by all households.

Findings reveal that a significant proportion of households currently living in non-residential (22%) and residential (20%) shelters moved over the past year, while 9% of households residing in ITS changed residence. The vast majority of households (72%) who moved reported moving only once, while 12% moved twice and the remainder 16% moved three times or more in the last 12 months. **Crucially, 50% of the households who moved residence did so because they were evicted, predominantly (71%) due to late payments or rent arrears.**[32] The issue of rental costs was also a key consideration for households that were not evicted. Findings show that 54% of households that moved in the last 12 months did so in search of lower rent. 22% cite unacceptable shelter conditions, while 15% of households report wanting to move to be closer to job opportunities.

> Abbas, who lives in Batroun, previously lived in a two-bedroom residential house with his family of six.[33] Two years ago, his rent was 300,000 LBP. One year later, it increased to 600,000 LBP and in the summer of 2021, the landlord asked for 1,000,000 LBP. Abbas could not afford this and moved to a significantly smaller house with only one bedroom where he is paying 750,000 LBP.

Looking closer at female-headed families, findings reveal that female-headed households are more prone to eviction resulting from suspended assistance. 16% report this as their reason for moving, in sharp contrast to 1% of male-headed households. More female-headed families were also under eviction notice (11% vs. 7%), and under threat of eviction (9%) compared to 6% of households headed by a man. Findings on employment are useful for understanding the difficulties that many households face in Lebanon's deteriorating economy. Findings show that 50% of household heads are working, while 23% are unemployed and 27% are outside the labour force, and therefore are solely relying on assistance and

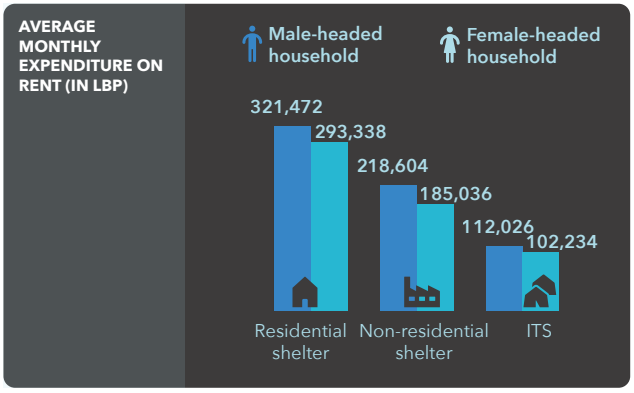

Figure 3: Average monthly expenditure on rent (LBP) per household by type of residential shelter and gender of head of household.

[31] A much lower share (6%) rent their residence in exchange for work, or are hosted for free (4%).

[32] 39% of households report move due to eviction and 11% report some of several moves due to eviction. At the time of the survey, 8% of households were under eviction notice and a similar proportion (7%) reported being under threat of eviction.

[33] All names in this report are changed to protect the identity of the individuals.

have no other sources of income. Employment figures also highlight that more female heads of households depend exclusively on assistance.

Qualitative findings highlight that Lebanon's hyperinflation and economic crisis have heightened anxiety over shelter among refugee households, and depict how the informal shelter sector has become even more precarious.[34] A majority of refugee households report **a significant increase in rental prices**, especially among refugees living in residential accommodation. Refugees report a doubling and, in some cases, even a tripling of rent. Households prioritize cash assistance to cover rent, while reiterating that the assistance they receive is not enough to cover rent.

> Umm Ismail lives in a one-bedroom apartment in Qab Elias. She hasn't paid rent in six months. During the first two months, the landlord was understanding, but more recently, he has become frantic. She has paid him in instalments but hasn't been able to keep up. Over the past four months, she has received a daily message from her landlord. *'Every day, he tells me, "Umm Ismail, when will you pay me?" I know his situation is difficult too but, tell me, where will I get 2,000,000 LBP to cover all these costs? I don't work, and the cash assistance I receive barely covers my monthly food expenses. What is left can barely cover 20% of the rent.'*

It is Lebanon's economic crisis that has led to strained relations between landlords and tenants, and the increase in evictions and threats of evictions. Qualitative findings also point to a growing trend of refugee families **leaving towns and cities in search of lower rent in rural areas, plus households moving from residential houses or apartments to either non-residential shelter or tents**.

> Abu Jassem lives with his family in residential accommodation and has not been able to pay rent for four months. During the time of the interview, he was given a two-week notice to leave as his landlord had found another family able to pay the rent. Abu Jassem says he will be moving his family to a nearby tented settlement as he can no longer afford the costs of residential shelter. *'I never thought my family would live in a tent. You see, we are from Aleppo city itself […] and we don't have an agricultural background like other Syrian families living there. But what can we do, it is our only option.'*

Findings also highlight that there are few empty tents in settlements available and obtaining permits from municipalities to erect new ITS is nearly impossible. This resulted in a rise in unregistered informal tented settlements and families moving into collective shelters to share rental costs. Refugees are fearful of being evicted and this anxiety is heightened because it is increasingly difficult to find alternative housing.

> A key informant says, *'We have noticed that more and more refugees are leaving their homes. At the same time, we continue to get reports that it is very difficult to find tents or apartments that are affordable. Thus, there is an increase in collective shelter, unregistered tents erected in remote areas by refugees, or movements into non-residential abandoned areas.'*

Tents are the most affordable shelter option, yet findings also show that prices of tents have increased exponentially from 100,000 LBP to 300,000 LBP per month. Another reported coping mechanism in ITS has been the **increase in bonded labour.** To afford the doubling of tent prices, many households have pushed their children or other household members to work in agriculture. While this is not a new pattern, interviewees—including shaweeshes—say this practice has increased.

THE CASH-PLUS EFFECT: BENEFITS OF EXTRA SHELTER IN-KIND ASSISTANCE

Results from the regression analysis show that **receiving shelter assistance over and above multi-purpose cash is significantly associated with improved outcomes not only for shelter but also for WASH and health.**[35] This is true for all shelter types—refugee households residing in residential housing, non-residential shelter and informal tented settlements—all benefit from add-on shelter assistance but improvements differ by shelter type.[36]

Residential shelters

Add-on shelter assistance is associated with significantly improved shelter outcomes on all seven indicators for MPC-recipient households living in residential accommodation. Households receiving extra shelter assistance are 15% more likely to have a verbal or written rental agreement, which provides a sense of security and c er assistance, a higher proportion have a flush toilet (by 28 percentage points) and add-on shelter assistance is also associated with better health—households spend more money on health, and fewer children suffer from diarrhoea by 10 percentage points.

Non-residential shelters

Findings show that shelter assistance is associated with three significant improvements for households living in non-residential dwellings: beneficiaries are

[34] Survey findings show that a significant proportion of all surveyed households are worried they will lose their home (residential shelter (51%), non-residential (65%) and ITS (52%).

[35] In the regression analysis, significance was tested at respectively 1%, 5% and 10%.

[36] The mapping of assistance activities for the shelter and WASH sectors showed different interventions for the three types of dwelling. Therefore, the study analyses outcomes separately for each type of shelter.

more likely to have roofs made of durable materials (by 27 percentage points), they are less likely to live in crowded conditions (by 38 percentage points), and they allocate a higher share of their household expenditure to rent (7 percentage points).[37] Durable roofs are a critical aspect of the dwelling, particularly for non-residential housing, which includes construction sites, garages and workshops. Non-residential shelters tend to be poorly suited for housing, but a higher share of rent out of a household's total expenditure is likely to indicate that a family is able to afford a dwelling that is more adaptable for living.

For MPC households living in non-residential accommodation, shelter support is also associated with a significantly higher probability of having a flush toilet and having a toilet inside the residence. The better living conditions in terms of better roofs and less crowding also result in better health outcomes and protect children from suffering from respiratory diseases by 25 percentage points.

Informal tented settlements (ITS)

Receiving shelter assistance is linked to significantly better shelter and WASH conditions for informal tented settlements, where many of the most vulnerable households reside. Families that receive shelter assistance are less likely to live in overcrowded conditions (9 percentage points), and are less likely to be evicted, and have better toilet facilities than those only relying on MPC assistance.[38] Shelter assistance is linked to better sanitation facilities and less crowding, which represent substantial improvements for ITS that are considered as a fragile and exposed type of shelter. However, improvements in shelter conditions do not translate into significant improvements in health outcomes tracked in this study. It may be that households would need to receive shelter support more frequently (i.e. replacement of tarpaulin) or require a longer timeframe to show improvements for health.

The cost of rent has increasingly become the single most important factor determining a household's residence. The economic crisis has widened the gap between the purchasing power of the MPC support and the cost of housing, and with the economy continuing to decline, housing has become even less affordable. Since any form of cash support is likely to be compromised by the economic crisis, supplementing MPC with in-kind support for shelter may become increasingly important.

RESIDENTIAL SHELTER OUTCOMES

Shelter outcomes
- ↑ 15% higher probability of having a rent agreement (verbal or written)

Sanitation outcomes
- ↑ 28% higher probability of having a flush toilet
- ↑ 8% higher probability of having a safe toilet

Health outcomes
- ↑ 5% higher probability of having increased health expenditure
- ↑ 10% higher probability of a reduction in diarrhoea in children

Figure 4: Residential shelter outcomes

NON-RESIDENTIAL SHELTER OUTCOMES

Shelter outcomes
- ↑ 27% higher probability of having a roof made of durable materials
- ↓ 38% lower probability of living in crowded conditions
- ↑ 7% higher share of expenditure on rent

Sanitation outcomes
- ↑ 45% higher probability of having a flush toilet
- ↑ 25% higher probability of having a toilet inside the dwelling
- ↓ 44% lower probability of access to improved source of drinking water

Health outcomes
- ↑ 25% higher probability of protection against respiratory diseases

Figure 5: Non-residential shelter outcomes

ITS OUTCOMES

Shelter outcomes
- ↓ 9% lower probability of living in crowded conditions
- ↓ 5% lower probability of getting evicted

Sanitation outcomes
- ↑ 9% higher probability of having a flush toilet
- ↑ 9% higher probability of having a safe toilet
- ↑ 12% higher probability of having a toilet inside the dwelling

Figure 6: ITS outcomes

[37] Results suggest that households in non-residential shelters are less likely to have access to an improved source of drinking water when receiving shelter assistance (44 percentage points), however, the finding suggests that shelter assistance is being directed at households in non-residential accommodation without access to improved sources of drinking water.

[38] Shelter assistance is also associated with a significantly lower share of expenditure spent on buying water. However, as most ITS are connected to the municipal water supply, the reduced spending share for water is likely a sign that households are less reliant on having to purchase water than an inability to afford water.

Photo: Charbel Kosseifi/NRC

WASH ANALYSIS

Water as well as sanitation and hygiene are directly linked to health and morbidity as a result of waterborne diseases and diseases transmitted by faecal-oral or direct contact. Sanitation involves access to latrines, wastewater disposal and treatment. The management of solid waste is also linked to sanitation and therefore health outcomes for Lebanese and Syrian refugee households. Women and girls are especially vulnerable to the adverse impact of sanitation gaps and reduced access to water, as safe sanitation for personal and menstrual health hygiene are essential to reduce health risks.[39]

Three quarters of Syrian refugees (79%) live in residential and non-residential shelters but little data is available in regards to WASH conditions and service delivery to these households. Sanitation and water interventions have to date primarily focused on informal tented settlements because the vast majority is not connected to the public water supply or sanitation networks.[40] Cash-based interventions are increasingly being used to address WASH needs of vulnerable communities.[41] Although evidence from mixed modalities is scant, experts are increasingly advocating for a mixed approach incorporating both in-kind and cash assistance to enable a more effective response to WASH needs.[42] This study profiles WASH conditions in the three types of shelter before analysing the effect of using a mixed cash and in-kind approach to WASH.

FINDINGS: WASH CONDITIONS OF SYRIAN REFUGEE HOUSEHOLDS

Access to sufficient water: Households living in non-residential shelters were more likely to report not having access to sufficient drinking water (21%) compared to families living in ITS or residential accommodation (11–15%).[43]

Findings measuring whether households are water insecure are in line with results on sufficient drinking

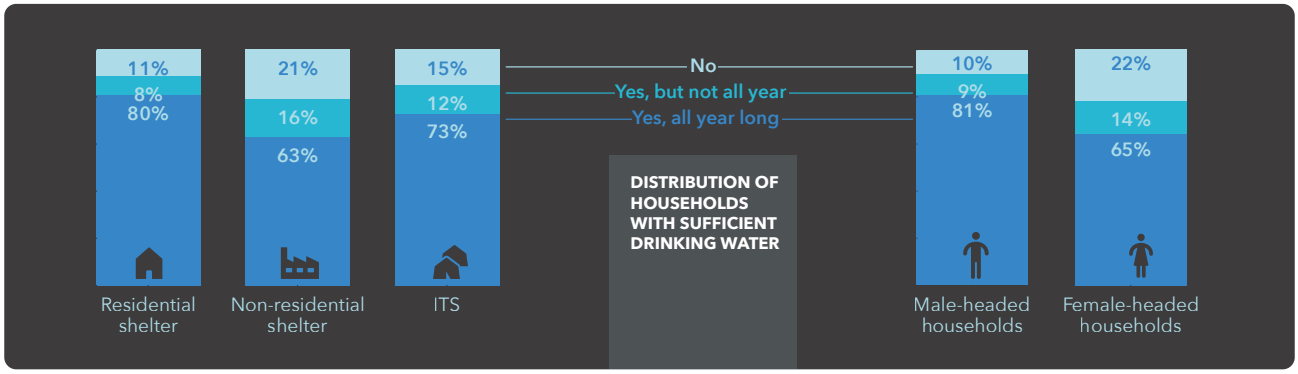

Figure 7: Distribution of households with sufficient drinking water by type of shelter and gender of head of household

[39] Government of Lebanon & United Nations (2021) Lebanon Crisis Response Plan 2017–2021 (2021 update). https://reliefweb.int/report/lebanon/lebanon-crisis-response-plan-2017-2021-2021-update

[40] Bonel, K., & Wehbi, M. (2020) WASH Assessment Platform Report 2020, UNICEF. https://data2.unhcr.org/en/documents/details/83190 (Accessed 1 June 2022)

[41] Le Sève, M. D., & Mason, N. (2019) Building Evidence to Inform the Effectiveness Use of Cash and Voucher Assistance in Emergency Sanitation and Hygiene Programming. https://bit.ly/3HpJQKz (Accessed 4 June 2022)

[42] Global WASH Cluster. (2016) Cash and Markets In The WASH Sector: A global WASH Cluster Positioning Paper. http://washcluster.net/node/29676 (Accessed 1 June 2022)

[43] This trend is replicated for having sufficient water for domestic use (washing, cleaning and cooking) for households residing in non-residential shelter (16% vs. 5–9%).

water.[44] Respondents' experiences with water availability, accessibility, use, acceptability and reliability show that 31% of surveyed households are water insecure **with higher rates for those living in non-residential shelters (41%) followed by those in ITS (33%) and residential accommodation (28%).**

Among households who report not having sufficient access to drinking water or water for domestic use, 79% say they are unable to afford it. At the time of the survey, over half of households **(55%) report paying for drinking water**, which comes either in bottles or is delivered by truck. A high proportion of households rely on buying bottled water—bottled drinking water is reported to be the main source of drinking water for those living in residential (48%) and non-residential (34%) shelters, whereas households living in ITSs rely mainly on trucked water (44%). For those who report paying for drinking water, the average household monthly drinking water expenditure is 80,121 LBP, however, this figure should be treated with caution due to the rapid inflation.[45] Qualitative findings show that the costs of water, whether for drinking, washing purposes or sanitation, are skyrocketing in an unprecedented way. Previously, water was not factored in as a key cost for households, today, money is being put aside by many households from MPC assistance to address WASH needs. Many refugees stress that **the price of water has increased exponentially to the point that they are no longer able to afford it**.

> Hamada, a Syrian refugee living in Bar Elias says, '*Last year, a gallon of water used to cost 1,500 LBP and today it costs 10,000 LBP. And it barely lasts, especially because we are cleaning more now since the pandemic.*'

Access to safe water: the majority of Syrian refugee households (84%) have access to improved drinking water sources,[46] and **findings show that households living in ITS are most likely to have improved drinking water sources (89%)**. This is not unexpected given that their access to water is largely managed by the various NGOs, which have put in place systems of water trucking and distribution of bottled water. Importantly, households living in non-residential shelters are the least likely to have access to improved drinking water (73%) and have limited access to WASH assistance services.

Qualitative findings highlight that rising water costs are impacting the quality of water consumed by refugee households. Results show a rising trend among Syrian refugees to buy water from private water companies. Refugees take with them old plastic gallons to refill water from water companies because this is cheaper than waiting for the company's delivery services or buying water from supermarkets. Results indicate a burgeoning of private water companies across the country, but these are difficult to monitor in terms of prices and water quality.

> Syrian refugee, Abu-Samih, says the landlord started to supply tenants with water from a new private company but that his son got severely sick soon after. The doctor he took his son to see warned Abu-Samih against drinking that water. As a result, Abu-Samih is buying bottled water but says his family is consuming less water because of inflation.

Other responses to the water crisis include water tapping and digging illegal wells, which can seriously affect health. The net result of the higher cost of drinking water is a rise in water-borne diseases among Syrian refugee families.

> Ahmad recalls, '*When […] we couldn't afford drinking water anymore, we started to drink water from a nearby well. At first, we didn't boil it but then we all started having stomach aches and diarrhoea. […] We also couldn't afford the cooking gas, as it has become very expensive, so we started to disinfect the water by placing it under the sun. It was a very difficult two weeks.*'

SANITATION AND HYGIENE

Sanitation: Households living in residential shelters are substantially more likely to report improved sanitation facilities (74%) compared to those living in non-residential shelters (47%) and ITS (27%).[47] When asked about the safety and propriety of toilet facilities in their shelters, almost a quarter of households (24%) stated that their facilities were not safe or proper for use. However, households residing in **non-residential shelter (41%) and ITS (36%) are most likely to report their sanitation facilities not to be safe or proper for use** (vs. 15% among residential households). Structural damage to the toilet (63%), the inability to lock the door (37%) and the lack of adequate lighting (33%) were the three most cited reasons for not having proper sanitation facilities or not feeling safe while using them.

Access to hygiene items: Households were asked to determine whether they have sufficient access

[44] The HWISE four questions tool is used to measure household water insecurity during the last 4 weeks before the survey. The HWISE-4 is a shorted and validated version of the HWISE to save time during the phone survey.

[45] Households living in ITS spend on average significantly less than those living in residential and non-residential shelters (65,065 LBP compared to 85,349 LBP and 82,157 LBP per month respectively) as ITS households are more likely to be benefitting from water distribution services.

[46] To assess water quality, the study used a proxy following VASyR: households are considered to have improved water access if their main water sources include household water tap/water network, bottled mineral water, water tank/trucked water, protected borehole, spring or well or piped water to yard/lot.

[47] For this research, households with flush toilets or traditional pit latrines with flush were considered to have improved sanitation facilities.

to a list of hygiene items including soap, shampoo, toothpaste, toothbrush, diapers, dishwashing liquid plus floor, bathroom and laundry detergents. While some hygiene items are reported to be fairly available for more than half of households, items less available include soap (32%), laundry detergent (29%), and dishwashing liquid (21%). **Half of the households (49%) with infants report not having sufficient access to diapers for their children.** Overall, 65% of surveyed households have sufficient access to menstrual hygiene items although this was considerably lower for those in non-residential shelters (49%).

Being unable to afford hygiene items and lack of livelihood options are the most frequently cited reasons for lacking access to these items. The prices of menstrual hygiene items (for example sanitary pads) have skyrocketed since the beginning of the economic crisis

> Ahmad, a community activist, flags that certain WASH products, particularly cleaning products and menstrual pads, have become significantly more expensive due to inflation because they are imported. Tahani says that she and her daughters now use cloth or tissue instead and often have to deal with leakages, discomfort, and are often unable to leave the house while on their periods. .

Qualitative interviews highlight that families living in residential and non-residential shelter perceive that they are being 'left behind'. Respondents reiterate that those in ITS receive consistent WASH support from international organisations, whereas they are left to manage without support. **Indeed, based on FGDs, there is a sense that those in ITS benefit more than those in residential areas in regard to WASH services.** This also applies to cleaning products; refugees in residential areas claim that those living within ITS receive more in-kind hygiene products than they do.

Findings also emphasize an **increase in waterborne diseases at a time when the cost of treatment and medicine has also risen dramatically**. Nur's story exemplifies this situation:

> *'Our situation is atrocious. My 6-year-old daughter […] was unfortunately infected with bacteria and was very dehydrated and lost so much weight. This was due to the contaminated water we were consuming. When I took her to get her hospitalized with my UN card, I was informed that I needed to settle a payment of 4,000,000–5,000,000 LBP to get her treated, which I obviously did not have.'*

Such everyday crises are compounded by the large decrease in WASH funding over the past couple of years. Based on interviews with WASH staff members and experts, many donors appear to have shifted their priorities from the WASH sector because of the difficulties in addressing the structural issues in the sector. Despite challenges in the WASH sector, interviews with shaweeshes and NGOs illustrate that community-led efforts in the WASH sector go a long way, plus respondents highlight that it is better and more effective to incorporate WASH within shelter interventions particularly given the context of evolving vulnerability. Furthermore, municipalities appear to be more open to external interventions and many interviewed municipalities express willingness to engage in structural WASH interventions for both refugee and host community groups.

THE CASH-PLUS EFFECT FROM RECEIVING WASH ASSISTANCE

The regression analysis results provide less conclusive evidence regarding the associations between receiving WASH assistance over and above MPC and the main positive outcomes under consideration.

Residential shelters

WASH assistance data reveals that most households living in residential accommodation receive very little WASH assistance—mainly hygiene kits (including a majority of COVID-19 kits), with few instances of households receiving other assistance types. While these kits have a positive impact on communicable diseases, they would not have significant associations with outcomes under consideration for shelter, WASH or health.

Non-residential shelters

Households in non-residential structures benefited mainly from hygiene kits and some rehabilitation of latrines. Households in non-residential shelters are harder to reach, and thus these interventions are relatively sparse. This translated into mostly non-significant results in the empirical model estimation.

The one exception to this result is the significant association between WASH assistance and improved sources of drinking water. Results show a **15% points higher probability of access to improved sources of drinking water.**

Informal tented settlements

The bulk of WASH assistance was received by households living in ITS. WASH assistance was provided in three forms: hygiene kits, desludging services and water trucking. There were few other WASH interventions, of which most were community sanitation projects.

There were no significant associations observed between WASH assistance and the outcomes of interest within the timeframe of this study; these are communal interventions, and thus any impact would

take a longer time frame to observe. Importantly, this does not mean that there would be no potential impact on welfare indicators of WASH interventions, but rather that effects would be longer-term and take effect through more complex channels.

WASH assistance was more likely to be awarded to ITS residents with toilet facilities outside their homes, without a flush toilet, and without sufficient access to hygiene items. As such, it is unsurprising that these households suffer higher rates of diarrhoea among children under five.

FOCUS ON

WASH CONDITIONS IN FEMALE-HEADED HOUSEHOLDS AND HOUSEHOLDS WITH A DISABLED FAMILY MEMBER

HOUSEHOLDS WITH PERSONS WITH DISABILITY

- MORE LIKELY to report not having sufficient access to both drinking water and water for domestic use (also less likely to have enough water throughout the year).
- LESS LIKELY to have improved sources of drinking water (80%) compared to households with no disabled members (84%).
- Significantly MORE LIKELY to report their toilet facilities to be safe compared to those without a disability (30% vs. 23%).
- Households with a CHILD with a disability are significantly MORE LIKELY (42%) to be water insecure in contrast to households with no disabled children (30%).

FEMALE-HEADED HOUSEHOLDS

- LESS ACCESS to sufficient drinking water: 22% report not having sufficient drinking water compared to 10% of families with a male head.
- MORE LIKELY to be water-insecure (36%) compared to male-headed households (29%).
- Much LESS LIKELY (47%) to have access to improved sanitation facilities compared to male-headed households (62%).
- Significantly MORE LIKELY (30%) to report not feeling safe when using the toilets or not having proper facilities compared to families with a male head (21%).
- LESS ACCESS to hygiene items: 57% vs. 75% of male-headed households.

Photo: Yasmin/CAMEALEON participatory photo project

Photo: Adrian Hartrick

Photo: Adrian Hartrick

CONCLUSIONS

This is the first detailed research conducted on WASH and shelter conditions among Syrian refugees in Lebanon. The study provides **a comprehensive analysis of WASH and shelter conditions** and the specific challenges faced by Syrian refugee households residing in different types of shelter—**informal tented settlements, residential accommodation and non-residential shelters**. The analysis also examines whether multi-purpose cash strategically combined with shelter and WASH in-kind assistance impacts shelter, WASH and health outcomes of Syrian refugee families. **The impact of the 'cash-plus effect' is particularly relevant** in today's Lebanon where the currency depreciation and rocketing inflation have drastically cut the purchasing power of refugees' cash assistance.

Rental prices have soared in Lebanon. A majority of refugee households prioritize cash assistance to cover their rent but many stress that the cash assistance they receive is no longer enough to cover rental costs. **Findings show that more families are evicted or are under threat of being evicted.** The increasing rent payments are also pushing households to move from urban to rural areas, while others are moving from residential accommodation to non-residential shelters or ITS in search of lower rent. There has been an increase in ITS erected without a permit and in remote areas, while other households are trying to cope by sharing non-residential shelters to split the costs.

Substantial numbers of Syrian refugee households live in overcrowded and substandard shelters, and this is especially true for female-headed households and families living in non-residential shelters. A high proportion of refugee households are worried that their accommodation is not safe for their family's health and report that they no longer have the money to fix or carry out shelter repairs. **Meanwhile, the nationwide fuel crisis has affected the water supply and people's ability to heat their homes**, which in turn has had tangible impacts on refugees' health. **Findings also indicate an increase in bonded labour, including child labour**, as a net result of the many economic pressures.

Findings from the 'cash-plus' analysis reveal that receiving shelter assistance on top of MPC is associated with positive outcomes for refugees living in all types of shelter. In fact, extra shelter assistance is associated with improved shelter, but also better WASH and health outcomes.

The provision of water and sanitation is also seriously impacted by Lebanon's economic crisis. Access to drinking water is a challenge; many refugee households rely on bottled water and now have to factor in the cost of purchasing water. **Especially non-residential and female-headed households plus those with a disabled family member are finding it difficult to afford water because of sharp price increases.** Respondents report having to resort to water tapping, digging unsafe wells and buying water from private and informal water providers, which is not always safe to drink. **Findings indicate an increase in waterborne diseases, while the price of treatment and especially medicines has risen dramatically**.

Female-headed households, and refugee families living in non-residential shelters and ITS worry about the safety and propriety of the toilet facilities. The price hike of hygiene products, including menstrual pads, means that many can no longer afford to buy these items. In particular, non-residential and female-headed households have less access to menstrual hygiene items.

Findings indicate that WASH programming produces better outcomes when it **involves the communities, allocates key focal points to cover particular areas and incorporates WASH and shelter interventions** in a well-coordinated framework.

The WASH 'cash-plus' analysis provides less conclusive results. It is important to emphasize that households living in residential and non-residential shelters received very little WASH assistance. WASH assistance provided to residential and non-residential households mostly focused on providing Covid-hygiene kits. For ITS households, WASH as-

sistance comprised hygiene kits, desludging services, and water trucking, while a small proportion of families were supported via community sanitation projects. Positive results from community projects are likely to be observed over longer timeframes, and hence the impact of this type of assistance would not be measurable during the period that the study covers. Importantly, this does not indicate that WASH interventions would have no potential impact on welfare indicators.

Photo: Charbel Kosseifi/NRC

Photo: Charbel Kosseifi/NRCi

RECOMMENDATIONS

The analysis of the research results has led the research team to a number of recommendations regarding the provision of WASH and shelter services, as well as a series of overarching recommendations for interventions within the current difficult context of Lebanon.

OVERARCHING RECOMMENDATIONS

- More targeted assistance needs to be directed towards **female-headed households** who are consistently more vulnerable and show increased protection risks that are linked to reduced access to shelter and WASH services. A combination of protection cash assistance for those in dire need (cash for rent), OFC and assistance for structural shelter upgrades is recommended.
- Given the extremely high inflation, any form of cash support is likely to be compromised by the economic crisis, hence, there is a need to reconsider the nature of shelter interventions and rehabilitation services, and delivery mechanisms. The shelter sector should look for non-cash interventions that aim to protect refugees' tenure and provide better tenure security. Actors should also **increase the provision of in-kind shelter interventions to complement cash assistance, while delivering cash interventions in USD** instead of Lebanon's rapidly depreciating national currency.
- There is need for actors working in the WASH and shelter sectors to **broaden the scope of interventions, specifically for non-residential households** as findings reveal that they have limited access to services and are more vulnerable across most of the shelter and WASH indicators.
- The evidence suggests that an **integrated shelter and WASH response** at the household level is the most effective way to assure better shelter, WASH and health outcomes. Currently, this is easier to implement for residential and non-residential households. However, agencies managing programmes in ITS should make changes to the existing operating strategy so that a single (I)NGO is responsible for administering both shelter and WASH programmes in a specific geographic location. This will allow for better joint intervention at the local level, while coordination between MPC funding agencies and both shelter and WASH sector actors will optimize positive outcomes from providing MPC plus other cash and in-kind assistance.

SHELTER-SPECIFIC RECOMMENDATIONS

- Given the rise in the numbers of newly erected, smaller ITS in mostly remote areas, agencies need to reconsider their current strategy of targeting only large ITS and increase their coverage of services to include them. Moreover, agencies should advocate for new ITS to be registered and issued permits.
- Interventions should prioritize critical lifesaving assistance. There is **clear need to increase shelter sector cash for rent interventions** to efficiently respond to the sharp increases in rental prices, in addition to the evictions and eviction threat referrals from the protection sector.
- Protection mainstreaming and conflict sensitivity must be key priorities in the response, specifically in the shelter sector. More attention should be given to areas with repeated conflict and collective evictions to manage conflicts and dilute the reasons behind them.

WASH-SPECIFIC RECOMMENDATIONS

- Actors administering WASH assistance should target vulnerable households and provide tailored assistance. Particular focus should be given to households with disabled members, and especially those with children with a disability as they have less access to sufficient and improved water. There is also a need to pro-

vide essential hygiene and menstrual hygiene items to female-headed households and those living in non-residential and residential shelters.

- Municipalities appear to be more open to external interventions and express willingness to engage in structural WASH interventions for both refugee and host community groups. This presents an opportunity to influence national WASH policy to improve refugees' access to safe and sufficient water and adequate sanitation services (i.e. connection to networks). Actors should advocate for national water authorities to make changes to policy, developing pro-active WASH roadmaps that prioritize long-term resilience for both refugee and host communities. Priorities also need to include supporting community-centred efforts, setting up key focal points within designated areas and creating a framework to improve coordination of WASH and shelter interventions.

ANNEX 1: SAMPLING AND SURVEY LIMITATIONS

The following **limitations** should be kept in mind when reading the analysis. First, the **survey relies primarily on self-reported data** on household characteristics and assistance-related questions and therefore can be impacted by social desirability bias and recall bias. Although it was clearly explained to respondents that this survey is not an assessment of their eligibility to receive any assistance, some may misreport information in an attempt to look worse off. Others may hide sensitive data that they feel uncomfortable sharing.

Second, **data collection activities were done over the phone and not face to face**. It was difficult to reach a lot of the respondents due to poor network coverage across many areas (especially in ITS) thereby increasing non-response. Also, a share of households in our sample did not possess a phone and could not be reached because the phone number provided belonged to a neighbour or relative. Moreover, surveys held over the phone prevented trained data collectors from better engaging in the survey specifically for some questions that require their input such as the area of the house, the material used for the walls and roof, plus the severity of disability among members.

Third, because of administrative setbacks, many related to a number of COVID-19 lockdowns in the country, there was a **delay to the start of data collection activities (by three weeks) and some of the activities took place during Ramadan**. Ramadan might cause certain shifts in food expenditure patterns resulting from changes in dietary habits during this month. To overcome this, questions on expenditures had a six-month recall period, so that respondents would provide information on general expenditures without specific focus on Ramadan.

Fourth, the **targeted sample size was not reached for the target group living in non-residential shelters.** While margins of error below 10% at the regional level were lost for those living in non-residential shelters, analysis for this sub-group is still representative at the national level.

ANNEX 2: LINEAR REGRESSION MODEL

To capture the 'cash-plus' effect of shelter and WASH assistance for households that already receive MPC, the study employs a straightforward linear regression model (Ordinary Least Squares) to determine the relationship between the assistance and household factors that are associated with favourable shelter and WASH outcomes, residential tenure arrangements, and health outcomes of refugee households. In addition, we include district-level fixed effects to account for regional and geographic variation in the outcomes and time-invariant factors that may affect the outcome variables. Formally, we estimate the following regression equation:

$$X_{ij} = X_{ij}\beta + Z_{lj}\delta + \mu_j + \epsilon_{ij}$$

Y_{ij} denotes the outcome variables observed for household i residing in district j. This includes measures of **shelter-related** outcomes such as quality of the residence, rent expenditure share out of total expenditure, rental agreements, access to electricity, and the likelihood of eviction among others. This regression specification was also employed to predict WASH-related outcomes (see table 2).

X_{ij} is a matrix of household-level characteristics and factors that the study hypothesizes are predictive of household shelter, WASH and health outcomes: head of household's sex, employment status, age and disability status, as well as household-level characteristics such as child and adult disability status, household size and share of dependents (under 18 and above 64 years) and desk formula scores for households during 2020 and 2021.

Z_{ij} represents the matrix of assistance services received by the household. The study consolidates all services into the following six broad categories:

MPC	WFP Food Assistance (Cash for Food or food vouchers)
Shelter assistance	WASH assistance
Winter assistance[48]	All other assistance service

The different bundles of shelter and WASH assistance can be divided into two types, cash and in-kind assistance. However, the assistance history of the collected sample indicates that the majority of households benefitted from in-kind shelter and WASH assistance during the reference period and therefore there was no need to separate them

The usefulness of the regression modelling exercise is in the interpretation of the resulting coefficients. Here, each estimated coefficient in the vector, β, will show which factors are associated negatively, positively, or at all with the outcomes of interest, and whether these associations are statistically significant. It is important to keep in mind that the coefficients may not be interpreted as causal, however, the regression results will shed some light on the factors that are associated with favourable shelter and WASH outcomes.

Several indicators for shelter and WASH, and related health outcomes are used to examine these potential associations. For each of these outcomes, the regression analysis investigates any association between improvement in that outcome and the receipt of shelter or WASH assistance on top of MPC. For shelter and WASH assistance, in turn, these associations are estimated by comparing two MPC recipient households only one of whom benefits from that assistance, and that are otherwise similar in their demographic composition, labor market characteristics, socio-economic status, presence of disability and district of residence.

[48] Winter assistance status is dropped from the regression analyses as nearly 84.1% of households report having received winter assistance in the past two years. As such, there is little room for meaningful comparison between recipients and non-recipients.

Table 3: List of outcome indicators

Dimension	Outcomes of interest
Shelter	Household (HH) rent expenditure share (out of total expenditure)
	HH lives in non-crowded conditions
	HH has a durable roof (cement roof for residential and non-residential shelters/ wood or iron roof for ITS)
	HH has durable walls (plastered and painted walls for residential and non-residential/ walls are not plastic or fabric for ITS)
	HH has access to 12 or more hours of electricity per day
	HH has a rent agreement with their landlord (written or verbal)
	HH was not evicted from their home during the past year
Sanitation	HH has a flush toilet facility
	HH has a private toilet (does not share their toilet with another HH)
	HH's toilet is inside their shelter
	HH believes the toilet is safe and appropriate for use
	HH has access to all hygiene items
Water	HH water expenditure share (out of total expenditure)
	HH has an improved source of drinking water
	HH is water secure according to the Household water insecurity experience scale (HWIES)
	HH has access to enough water for domestic use (cooking, cleaning, washing, etc.)
Health	HH health expenditure share (out of total expenditure)
	No children under 6 years of age had diarrhoea in the past month
	No children under 6 years of age had a respiratory disease in the past month

Table 4: Assistance history and categories

Category	Label	Type	Source	Category	Label	Type	Source
Food assistance	POS - WFP Food Payment	Cash	RAIS	**Other**	Cash for Education	Cash	RAIS
	ATM - WFP Food Payment	Cash	RAIS		Conditional cash for education assistance	Cash	RAIS
MPC	MPC - ATM Financial Assistance	Cash	RAIS		UNICEF - Integrated child wellbeing program: ATM Financial Assistance	Cash	RAIS
Winter	Winterization - ATM Financial Assistance	Cash	RAIS		Emergency financial assistance	Cash	RAIS
Shelter	Cash for Rent	Cash	RAIS		Protection Cash Assistance	Cash	RAIS
	Rehabilitation Rent Free	In-Kind	RAIS		PCAP (Family)	Cash	RAIS
	Rehabilitation Rent Freeze	In-Kind	RAIS		PCAP (Individual)	Cash	RAIS
	Rehabilitation Rent Reduction	In-Kind	RAIS		PCAP 3 (Family)	Cash	RAIS
	Weatherproofing Heavy/ NAK in IS	In-Kind	RAIS		Cash for Food	Cash	RAIS
	Weatherproofing Light/ Medium in IS	In-Kind	RAIS		Food voucher	Voucher	RAIS
	Medium Repair Kit	In-Kind	RAIS		COVID-19 Cash Assistance	Cash	RAIS
WASH	CRI – Large Menstrual Hygiene Management Kit	In-Kind	RAIS		CB-ECE Learning Kit	In-Kind	RAIS
	CRI – Medium Menstrual Hygiene Management Kit	In-Kind	RAIS		CB-ECE Sessions	In-Kind	RAIS
	IPC HH Kit	In-Kind	RAIS		Other life skills training	In-Kind	RAIS
	Hygiene Kit	In-Kind	RAIS		Education internet bundle	In-Kind	RAIS
	Distribution of Hygiene Kits	In-Kind	Survey		Happy Kid Kit	In-Kind	RAIS
	Construction of Grey Water System	In-Kind	Survey		Food and Hygiene in-kind distribution	In-Kind	RAIS
	Construction of Sanitation Innovative System	In-Kind	Survey		Food parcels	In-Kind	RAIS
	Construction of Septic Tanks	In-Kind	Survey		Food Supplies	In-Kind	RAIS
	Construction or rehabilitation of WASH facilities	In-Kind	Survey		CRI – Blankets	In-Kind	RAIS
	Desludging services	In-Kind	Survey		CRI - Mattresses	In-Kind	RAIS
	Construction of Handwashing stations	In-Kind	Survey		CRI - Sleeping Mat	In-Kind	RAIS
	Distribution of Water Tank	In-Kind	Survey		CRI - Jerry Can - Water	In-Kind	RAIS
	Water Trucking	In-Kind	Survey		CRI - Kitchen Kit	In-Kind	RAIS
	Construction of Water Network	In-Kind	Survey		CRI - Solar Lanterns	In-Kind	RAIS
	Construction of Water Reservoir	In-Kind	Survey		CRI - Winterization/clothing	In-Kind	RAIS
					Fire Extinguisher	In-Kind	RAIS
					Hygiene Awareness	In-Kind	RAIS
					Social work (counselling)	In-Kind	RAIS
					Distribution of Garbage Bins	In-Kind	RAIS

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CAMEALEON is an NGO-led network, co-managed by the Norwegian Refugee Council, Oxfam and Solidarités International. The purpose of CAMEALEON's work is to conduct independent research and analysis in support of the World Food Programme's multi-purpose cash programme for Syrian refugees in Lebanon, as well as contribute to wider cash-related learning.