



# 2023 END OF YEAR SECTOR DASHBOARD

## Water



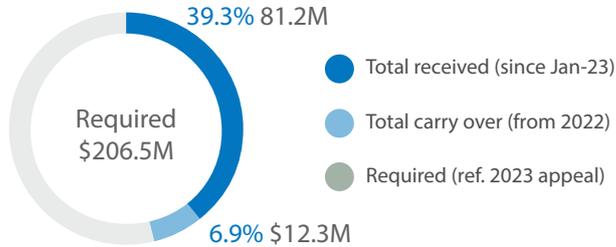
Inter-Agency  
Coordination  
Lebanon

This dashboard summarizes the progress made by partners involved in the Lebanon Crisis Response Plan and highlights trends affecting people in need. The Water Sector in Lebanon is working towards its expected outcome: more vulnerable people in Lebanon are accessing sufficient, safe water for drinking and domestic use with reduced health and environmental impacts from unsafe wastewater management.



### 2023 Sector Funding Status

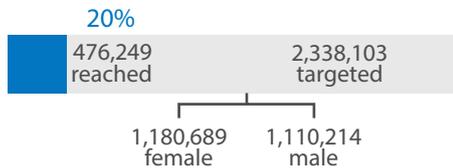
as of 31 Dec 2023



### 2023 population reached



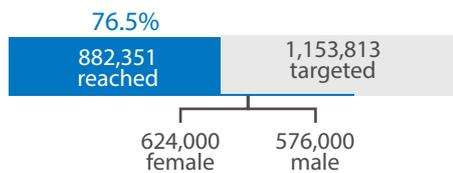
2,750,709  
People in need



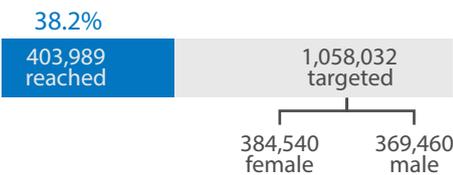
### 2023 population figures by cohort



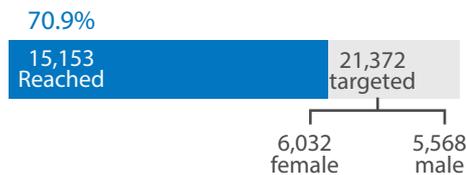
1,357,427  
Lebanese individuals  
in need



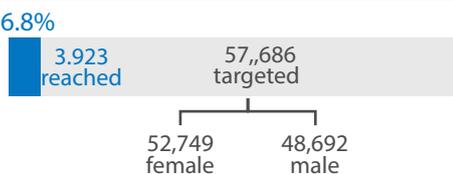
1,154,813  
Displaced Syrians  
in need



25,143  
Palestinian Refugees  
from Syria  
(individuals)



67,866  
Palestine Refugees  
in Lebanon  
(individuals)



### Age/Gender Breakdown

# men/women/boys/girls who have experienced a WASH behaviour change session/activity



### Progress against targets

#### Key Achievements

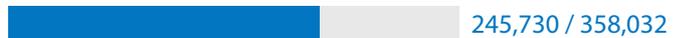
# of people (estimated) maintaining consistent and reliable access to water through minor repairs and operational support to Water Establishment-managed systems



# of affected people assisted in permanent location with improved access to adequate quantity of safe water for drinking and for domestic use



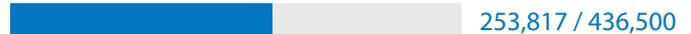
# of affected people assisted with temporary access to adequate quantity of safe water for drinking and water for domestic use



# of affected people with access to improved safe sanitation in temporary locations



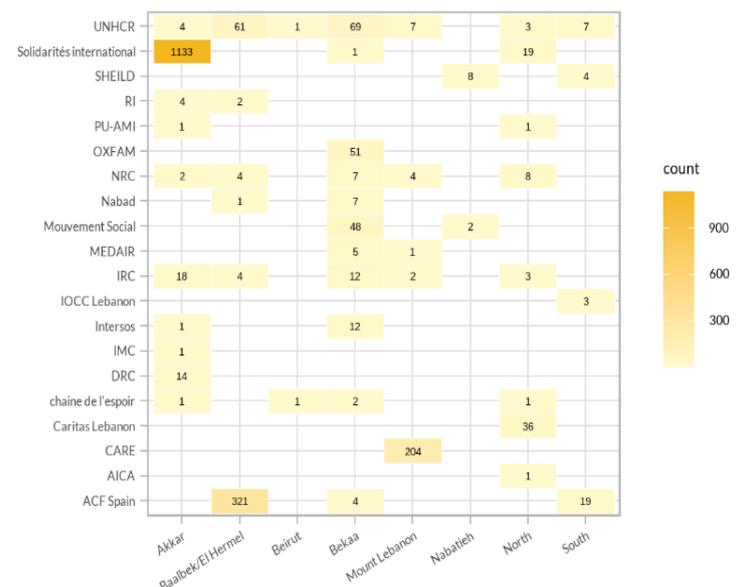
# of individuals who have experienced a WASH behaviour change session/activity



There have been 2,125 referrals to the Water Sector in 2023. This accounts for only 1.4% of the total referrals made in Lebanon (152,446). The vast majority of referrals to the Water sector were made for the Akkar governorate.

#### Referrals to Water Sector - Partner Reporting by Governorate

Results as of Q4 2023





## SITUATION UPDATE:

In 2023, Lebanon confronts significant challenges in the Water, Sanitation, and Hygiene (WaSH) sector, affecting nearly 2.6 million people across various population groups. The country is grappling with a multi-layered crisis marked by an acute economic downturn, compromising institutional capacity and household purchasing power, leading to poverty and deprivation. Water systems operate intermittently, and wastewater treatment plants are largely inoperative, contributing to a fragile WaSH situation exacerbated by last year's cholera outbreak and ongoing cross-border conflicts in southern Lebanon.

At the institutional level, the water and wastewater sector faces dire circumstances, with severe budget deficits, currency devaluation, low subscriptions and collections rates, and high operational costs jeopardizing financial stability. An outdated legal and institutional framework exacerbates challenges. While the Ministry of Energy and Water initiated a recovery plan in 2022, it remains underfunded and lacks political and financial support due to ongoing political stagnation. Cross-border conflicts further impact the South Lebanon Water Establishment's capacity, hindering water and wastewater system operations.

Water insufficiency is a pervasive concern, with only 73% of Lebanese households and Syrian households in residential shelters reporting adequate water access. Water shortages increase the risk of water-borne diseases, particularly affecting vulnerable infants and young children. Women, girls, and persons with disabilities face height-

ened risks of exploitation during water access due to dependency on intermediaries. Financial constraints impede water access for some households, with Lebanese households spending 5% of their income on water, exceeding the recommended 3%. Displaced Syrians in temporary locations and Palestine refugees also encounter water insufficiency challenges.

Sanitation disparities exist, with only 26% of households' wastewater considered safely managed, ranking Lebanon poorly on the global sanitation ladder. Wastewater disposal methods vary, and concerns arise over environmental and health issues. Access to hygiene items poses challenges, particularly in certain regions, with disparities in menstrual hygiene material access. Maintaining minimum service levels depends heavily on external support, and displaced Syrians and Palestine refugees rely on humanitarian assistance for water and sanitation needs.

Water-related tensions vary across districts, with Minieh-Dennieh, Zahle, and Baalbek reporting heightened concerns. The WaSH sector faces complex challenges, necessitating a comprehensive response focusing on equitable access, financial sustainability, and tailored interventions to address diverse population needs. Safeguarding public health and the well-being of all communities in Lebanon requires urgent attention to water, sanitation, and hygiene challenges amidst the multifaceted crises impacting the nation.

## ANALYSIS OF ACHIEVEMENTS OF THE SECTOR AT THE OUTPUT LEVEL

Under Output 1.1, the collaborative efforts of various Task Forces established by the Ministry of Energy and Water (MoEW) continue to support the implementation of the 2022 – 2026 Water Sector Recovery Plan, bringing to the table various actors, including the LCRP WaSH sector partners to contribute to the sustainability of the support. These Task Forces, including Water Source Monitoring, Updating Customer Database, Collaboration with Municipalities, Solarization and Energy Management, Water Quality, Non-Revenue Water, Support of Water Establishments' Staffing, Wastewater, and Digitalization, remain actively engaged in their respective areas. Additionally, the WaSH sector, on behalf of the Ministry of Energy and Water, is continuously updating and maintaining vital information about water and sanitation infrastructure to ensure preparedness and efficiency. The outputs from these Task Forces are expected to contribute significantly to achieving sectoral output 1.1. Additionally, depending on the specific objectives of each task force, their outcomes may also make a substantial impact on outputs 1.2, 2.1, and 2.2, in line with the updated National Water Sector Strategy (NWS) and the Waters Sector Recovery Plan

In terms of direct support to water institutions' operations and capacity building (Output 1.2), during 2023, EU-AFD Technical Assistance, the United Nations, and various non-governmental organizations have seconded 14 technical staff to all regional Water Establishments.

For Output 2.1, which focuses on providing access to adequate quantities of safe water for drinking and domestic use, nearly 246,000 individuals (67% of the target) received support through water trucking. Over 1.4 million cubic meters of water have been delivered via water trucking modality to displaced Syrians in informal settlements benefiting 235,000 people, noting that the support has not been consistent over the year and that the support does not reach agreed minimum standards for access to water in informal settlements. This is primarily attributed to the funding constraints affecting the sector's programs in temporary locations. In addition, 8,000 Lebanese affected by the cross-border conflict escalation in the south of Lebanon have been supported with access to temporary WaSH services. For permanent locations under Output 2.1, stabilization projects continue to benefit all population groups. Under the 2023 LCRP response framework, eight WaSH sector partners have reported 41 activities supporting 30

pumping stations, benefiting approximately 534,000 people (431,000 Lebanese and 103,000 Syrians). Among others, support continues to reduce reliance on the public electrical grid and fossil fuels as primary energy sources. Such activities include the installation of 2,014 kW of photovoltaic panels, which constitute 30% of the total kW installed for water infrastructure by humanitarian, stabilization and development actors that reported to the sector in 2023.

Four Water Establishments have been supported through the water supply systems' repair, operation and maintenance program, mostly through the multi-year EU-UNICEF program. During 2023, more than 600 repairs across the country have been conducted, ensuring the delivery of around 400,000 cubic meters per day of water to over 3 million people. The repair of 147 chlorination systems maintained proper treatment of nearly 437,000 cubic meters per day and supplied safe water to approximately 1.9 million people. Chlorine stock for all four Water Establishments has been replenished with more than 130 tons of chlorine.

Output 2.2, which aims to improve access to sanitation and safely managed wastewater services for the most vulnerable people, 240,000 individuals in informal settlements (60% of the target) received assistance through , desludging, toilet rehabilitation and maintenance of sanitation facilities. Nearly 388,000 cubic meters of sludge have been removed from informal settlements and safely disposed of in wastewater treatment plants. This amounts to the equivalent of 155 Olympic-size swimming pools of sludge that have been safely removed from the environment. For permanent locations (Output 2.2), the EU-funded UNICEF program has commenced and supported eight wastewater treatment systems that handle the wastewater flow of around 150,000 beneficiaries .

In the area of WaSH behaviour change sessions (Output 2.3), including menstrual hygiene activities, approximately 253,817 individuals have participated, reaching about 58% of the sector's target. This includes 107,979 women, 50,813 girls, 41,047 boys, and 53,938 men. Lower than expected reach may be attributed to the containment of cholera in early 2023 and no major water-borne disease outbreak in 2023.



## Referrals Trends & Mainstreaming

There have been 2,125 referrals to the Water Sector in 2023. This accounts for only 1.4% of the total referrals made in Lebanon (152,446). The vast majority of referrals to the Water sector were made for the Akkar governorate.

**Mainstreaming Activities:** The Gender Working Group organized training of trainers (ToT) on Gender in Humanitarian Action (GIHA) for the WaSH Sector focal point. As an output of the training, gender-related tasks in the WaSH sector annual work plan have been revised and

adapted.

In collaboration with UNFPA, the sector developed and disseminated comprehensive Menstrual Hygiene Management (MHM) guidelines, promoting menstrual hygiene and health awareness as a fundamental aspect of our sector's humanitarian efforts.

Analysis by the Tension Monitoring System, with a focus on water-related issues at the national and sub-national levels, has been presented on several occasions to support conflict-sensitive programming.

tensions resulting from these issues which should be taken into consid-

## KEY CONTRIBUTIONS OF THE SECTOR TO LCRP OUTCOME AND IMPACTS

The Water sector partners' activities contributed to all four LCRP strategic objectives. The LCRP strategic objective "Support service provision through national systems" was supported through the sector activities implemented under both sector outcomes: "Strengthen national, regional and local public institutions' capacities to deliver improved public policies, goods and services (water and sanitation)" (outputs 1.1. and 1.2.) and "More vulnerable people in Lebanon are using safely managed drinking water and sanitation services whilst reducing health and environmental risks and improving water quality by increasing the proportion of wastewater that is safely treated" (outputs 2.1. and 2.2.). The activities implemented under each outcome often complement the other outcome results. The support included among others repair, maintenance or improvements to water production, treatment and supply systems, as well as to wastewater systems, primarily managed by the Water Establishments. The sector partners have also been supporting the Ministry of Energy and Water (MoEW) and Water Establishments in planning, implementing, monitoring, and managing processes through the secondment of technical staff and capacity building for Water Establishments' employees. The sector outcome 2: "More vulnerable people in Lebanon are using safely managed drinking water and sanitation services whilst reducing health and environmental risks and improving water quality by increasing the proportion of wastewater that is safely treated" (outputs 2.1. and 2.2.) directly supported both LCRP strategic objectives "Provide immediate

assistance to vulnerable populations" and "Support service provision through national systems", while also contributing to other LCRP objectives: "Ensure protection of vulnerable populations" and "Reinforce Lebanon's economic, social and environmental stability". To ensure that the immediate humanitarian needs of the most vulnerable populations are met, the Sector was enhancing access to water, sanitation and hygiene, simultaneously mitigating WaSH-related disease outbreaks for all population groups residing in Lebanon. The majority of displaced persons from Syria living in informal settlements were assisted with direct water trucking and desludging services to ensure immediate and temporary service delivery since the context for the implementation of more cost-efficient solutions remains challenging. Emergency response to Ein El-Hilwe and escalation of hostilities in the South was partially supported with resources available from the LCRP programmes. Due to data unavailability at the time of reporting, it was not possible to evaluate the progress against the outcome indicators. The data for outcome indicators: "% increase in proportion of population using safely managed drinking water services (SDG 6.1.1)", "% increase in proportion of wastewater safely treated", and "% increase of boys, girls, women and men with appropriate hygiene knowledge, attitudes and practices" will be finalized in 2024 (MICS, WAP 2.0 assessments), and the results will be available for a mid-year review of the Lebanon Response Plan 2024-2025.

## CHALLENGES, RISKS AND MITIGATION MEASURES

During 2023, access to adequate water, sanitation, and hygiene continued to be challenged by multiple crises. The ongoing economic breakdown and energy crisis have further undermined already weak Lebanese public water supply services threatening the Sector's financial viability and basic operability by sharply rising costs and lowering revenues. The Sector is particularly impacted by extremely low electricity production (with some months of no electricity at all) by the Electricite du Liban (EDL), which forms the main energy source for the vast majority of the water supply systems across Lebanon; this severely increases the water production and distribution costs. The fees' collection and subscription rates are chronically insufficient, contributing to a huge gap between expenses and revenues, resulting in the inability of Water Establishments to cover operation and maintenance costs. There is still no support for Water Establishments coming from the national budget despite the fact this is one of the foundations for the successful implementation of the national 2022 - 2026 Water Sector Recovery Plan. Without public water services, people are left with no choice but to buy water from private sources. The main available alternative is the private water trucking sector, which is able to influence and control the market, imposing inflated fees and having limited oversight from the state. This alternative market has seen rapid growth and risks undermining public service provision. Similarly, the bottled water industry has expanded and is marked by a lack of apparent oversight. In this context, a large portion of the population is forced to rely on water sources of questionable quality. The cholera outbreak that started in late 2022 posed additional strain on sector partners, and even with the containment of the outbreak in early 2023, Lebanon remains at high risk of another outbreak since the root causes of

cholera haven't significantly improved. The overall challenging situation of the sector has been exacerbated in 2023 with the escalation of the Ein El-Hilwe crisis and the escalation of hostilities in the South since October 2023. The unpredictable dynamic of the escalation of hostilities, the scale of displacement it may trigger, its impact on water and sanitation infrastructure functionality, and the ability of sector partners to provide emergency WaSH services require a fully funded contingency plan to mitigate the impact on access to safe water, sanitation and hygiene. Further, the security situation may restrict access to the field at certain times.

The Water sector has been increasingly facing funding constraints that severely impact the support to water supply and wastewater treatment infrastructure serving all population groups in Lebanon. The large-scale repair and maintenance programme supporting all four Water Establishments was suspended in September 2023 due to a funding shortfall, reducing the sustainability of support. WaSH service provision for more than 300,000 displaced Syrians living in informal settlements across the country was also severely impacted, with fewer people served by WaSH actors with substandard quantities. The adjusted sector strategy developed by the sector in late 2022 to mitigate the impact of the funding constraints has been implemented with limited achievements. Reduction of the reliance on trucked services provided by humanitarian actors is very difficult given the governmental policy of no permanent infrastructure being permitted for informal settlements. In addition, MoEW banned the installation of decentralised wastewater treatment units in informal settlements, which were the core and the only substantial solution to minimize desludging from the sites.



## Case Studies

### 1) EU-HawkaMaa- Establishment-Led Service Improvement & Cost Recovery (ELSICR)

Water Establishments (WEs) in Lebanon are trapped, in relation to the populations they serve, in a vicious cycle of (a) inadequate services and inequity of distribution; (b) user dissatisfaction and breakdown of trust; (c) low revenue collection and user compliance; (d) inability to recover costs or invest in improvement. This dialectic is unsustainable. Despite investment in infrastructure – largely through international loans and grants – and successive capacity-building programs, as well as reform agendas and strategies, the cycle continues, and WEs are still viewed unfavourably by users who are themselves forced to resort to negative coping mechanisms (e.g. water trucking, unlicensed boreholes, illegal connections, bottled water).

Our experience has shown that, even in schemes where sufficient water production is guaranteed, service delivery to end users is mainly governed by the downstream conditions and operation of the distribution network, which are often inefficient and inequitable. In light of this, the EU-HawkaMaa Consortium, funded by the European Union, and comprised of Acted, Solidarités International, Action Against Hunger and WeWorld-GVC, implements Establishment-Led Service Improvement & Cost Recovery (ELSICR) activities. The project targets all 4 regional Water Establishments, focusing specifically on 6 WE sections: Labweh, Riyaq, Baalbeck, Baabda, Quobayat and Saida, ultimately improving water services in 27 localities across the country for more than 260,000 people. This target is also achieved through the implementation of 5 large infrastructure schemes, all aligned with the MoEW and NWSS strategy. First, the project supports the capacity of WEs to immediately respond to maintenance and troubleshooting needs in schemes under their jurisdiction through the local (section) level, where rehabilitation of the facilities (incl. solarization), training and equipment is provided. Six hydraulic engineers, one per targeted section, have been seconded for 2 years. They support the assessment, design, and implementation or supervision of infrastructure improvement works to rehabilitate and upgrade existing schemes to improve levels of service equitably. Second, the project also targets the user-WE relationship by launching payment and subscription campaigns in the targeted localities. Campaigns to disconnect illegal users have also been conducted, with success. All campaigns are informed by Community Perception Research that was done in preparatory phases by partners. "We faced issues in certain locations where water did not reach the subscribers. However, thanks to the engineer seconded by Solidarités International as part of the EU-HawkaMaa project, who assessed the network to fix leakages that led to water loss, we were able to regain the subscribers' trust. As a result, the number of subscriptions increased." NLWE staff. "The equipment provided to us has been incredibly helpful, both within the office and in our fieldwork. This equipment includes tools for water testing, leak detection, and tank examination, which greatly benefited our department." BWE staff.

### 2) Oxfam - Access to water in Al Ain Baalbek: How did women cope?

Zarifa, a 27-year-old from Al Ain, Baalbek, opened up to Oxfam about the dreadful experiences her community faced due to inaccessibility to water and how women were impacted by it. Back in November 2022, Zarifa joined Oxfam in a community consultation session for the "Sustainable safe access to water for Lebanese and refugees in Al Ain, Baalbek and Bchetfine, Chouf" project funded by the Lebanon Humanitarian Fund (LHF), to solarize the Al Ain water pumping station. "Before establishing the solar water pumping station in Al Ain, life was a constant struggle," she told Oxfam. "We had no electricity, no water, and frustration was mounting." Living with scarce water resources meant enduring up to 10 days without access to water, leaving Al Ain residents to collect money from community members to buy costly fuel to pump or truck water to different neighbourhoods. An unfortunate reality unfolded where the neighbourhood with deeper pockets had priority access, leaving others desperate and deprived. "We had to make difficult choices," she continued. "Cleaning one day meant sacrificing washing clothes, or even daily showering." However, the burdens of water inaccessibility disproportionately affected women. As the primary managers of household water, they bore the emotional and economic distress of not being able to meet basic needs. Decision-making around water usage and rationing sparked tensions within the households, leaving women overwhelmed and unheard. But then, Oxfam's solar water pumping station brought a wave of relief. "Now, water is available round the clock, pumped every other day, meeting all our needs," Zarifa said with a big smile. "We even have access to clean drinking water in Al Ain." The transformative effects went beyond the practicalities of water access. Through workshops, women finally felt their voices were heard. "We shared the economic burdens to access water," she explained. "People in Al Ain are now even more aware when using water, even if it's available much more than before, they ration their water consumption." With the installation of a chlorination water treatment system, the water quality improved significantly. "We no longer worry about the bad water smell," Zarifa remarked. "Water is now cleaner and safer to use." The "Sustainable safe access to water for Lebanese and refugees in Ain Baalbek and Bchetfine, Chouf" project, with its solar water pumping station and community-based activities, brought change to Al Ain that went far beyond water provision. It gave women the opportunity to participate in public life, improved living conditions, and fostered a sense of unity in Al Ain's community. The project "Sustainable safe access to water for Lebanese and refugees in Ain Baalbek and Bchetfine, Chouf" was implemented by Oxfam between July 2022 and July 2023 with the financial support of the Lebanon Humanitarian Fund (LHF). This project in Baalbek and Chouf districts aimed to improve safe access to clean water for a total of 31,272 people.

### 3) Save the Children – Solarization of Sawiri village water supply scheme

In May 2023, Save the Children and the Bekaa Water Establishment collaborated on a solarization project in Sawiri village, addressing the critical need for clean water in a region facing resource scarcity. The project primarily targeted the residents of Sawiri village, aiming to enhance their quality of life and contribute to the village's long-term development by providing sustainable access to clean water. The initiative involved the installation of 300 solar panels capable of generating 152KW of power, which effectively operated the 125 HP pump solely through sunlight, eliminating the reliance on additional fuel or generators. Implementing the project in the challenging terrain of the Bekaa region presented logistical obstacles during the solar panel installation. Additionally, ensuring the system's long-term maintenance and sustainability required close collaboration with local authorities and community leaders. However, these challenges offered valuable insights for similar future initiatives, emphasizing the importance of thorough planning, local expertise, and adaptability. During the inauguration event, Jennifer Moorehead, Save the Children Country Director, stated that, "Collaboration and partnership are essential for creating a lasting impact. Strong engagement with local authorities, community leaders, children and young people must be at the heart of our approach to meeting the needs of communities." The solarization project successfully provided clean and safe water to the targeted 7,500 individuals in Sawiri village. By harnessing solar energy to power the water pump, the initiative proved to be environmentally sustainable and cost-effective. The project exemplified the power of community engagement and collaboration, showcasing the strength that emerges when diverse stakeholders come together for a common cause. This project serves as a complementary initiative to previously implemented projects, which included the installation of tanks and water pumps provided by various donors.



## Case Studies

### 4) Solidarités International – Water System solarization in Zouq Bhannine, mitigating public health risks

Solidarités International (SI) has been one of the main frontline responders to the cholera outbreak at the end of 2022 in the North and Akkar regions, providing emergency response to affected populations. In 2023, once the cholera wave had been contained, SI continued its efforts to reduce outbreak risks in Lebanon by shifting to a cholera-preventive approach. As such, with the support of LHF, SI implemented a solarization project in Zouq Bhannine, a region categorized as having a high Cholera risk. Through this intervention, SI aimed at ensuring the delivery of clean water to 10,000 individuals from the host community and refugees residing in the area in a context marked by inadequate access to clean water, heightening cholera and other outbreak risks, posing a significant threat to public health. Before the solarization project, accessing clean water was a constant struggle for all residents in the area, especially during the outbreak, as the North Lebanon Water Establishment (NLWE) did not have enough resources to run the generators for the water system, leading to very limited hours of water provided to the residents per day. Therefore, SI's intervention included the installation of solar-powered water systems, as well as the capacity building of the focal points for its maintenance and operation, and community awareness campaigns on hygiene and water management practices through the NLWE. The results achieved were transformative, as the successful installation of solar systems led to a significant increase in the delivery of daily clean water to approximately 10,000 beneficiaries residing in the neighbourhood in a sustainable manner. The first long-term impact of this intervention is the reduction of the risk of cholera and other public health outbreaks. This intervention also enhanced the overall well-being and quality of life for the 10,000 host community and refugee population in the Zouq Bhannine area while improving the NLWE capacities. As a lesson learned, such implementation requires a high level of coordination with the WaSH Sector and the NLWE to ensure the selection of the sites is relevant and prioritized by all, avoiding any duplication with other WaSH partners' projects. Overall, the solarization project implemented by SI in Zouq Bhannine exemplified the alignment with the WaSH sector's strategy, specifically on Output 1.2, "Supporting water institutions in building their capacity", and Output 2.1 "The most vulnerable people have secured access to a sufficient quantity of quality, reliable and equitable Water services". This intervention enabled the provision of long-term sustainable solutions to water access challenges, resulting in improved health outcomes and resilience for the affected populations.

## Reporting Partners by Q4 2023

The achievements described in this dashboard are the collective work of the following organizations: UNICEF, ACF Spain, ACTED, ADRA, AMEL, ANERA, ARCS, AVSI, Alpha, Borderless, DPNA, DRC, ICRC, IMC, IOM, Intersos, IR Lebanon, IRC, ISWA, Leb Relief, Lost, Mada, Nabad, NRC, Oxfam, RMF, Sawa Group, Save the Children, Solidarites International, SBT and World Vission.

