

# When water becomes a privilege: the consequences of shutting down the public water system in Lebanon

October 2022, Lebanon WaSH Sector

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<sup>1</sup> Georgio, 4 years old, is helping his parents fill their small water containers because they don't have water at home. © UNICEF/UN0671359/Choufany

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Access to safe and clean water and sanitation is recognised not only as a fundamental right but as essential to the full enjoyment of life and all other human rights, including the right to health<sup>2</sup>.

## SITUATION

All population groups residing in Lebanon are increasingly facing dramatic challenges with accessing safe and sufficient quantities of water for drinking and domestic use. The country is undergoing a multi-layered crisis, characterized by an acute economic contraction that is compromising both institutional capacity to supply services as well as household purchasing power, driving poverty, deprivation and inhibiting access to services. The recent cholera outbreak in Lebanon, with the first case confirmed on 5 October 2022, presents an additional and urgent challenge that requires a timely and firm WaSH response..that requires a timely and firm WaSH response..

The main contextual challenges for water supply are as follows.

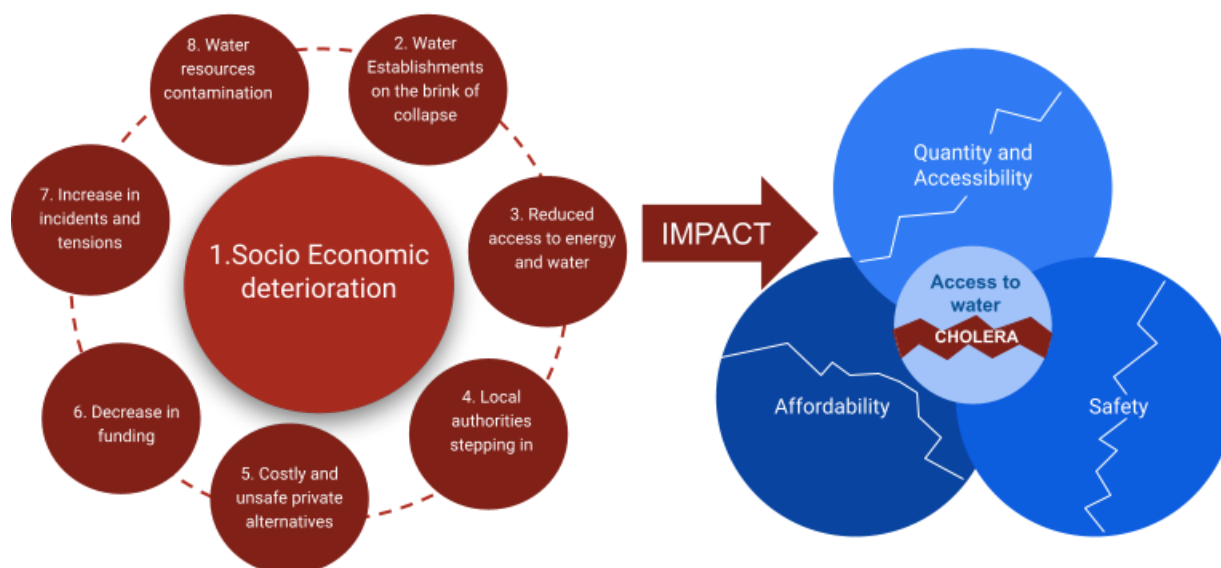


Figure 1: Contextual challenges impacting access to water in Lebanon

### 1. Socioeconomic deterioration

The extreme depreciation of the Lebanese pound (LBP) has contributed to triple-digit annual inflation of 162 per cent between August 2021 and August 2022<sup>3</sup>. The depletion of cash and foreign currency reserve assets of the Central Bank has affected the prices and availability of critical imports such as food, fuel and medication, particularly as the

<sup>2</sup> [United Nations General Assembly, Resolution 64/292 \(2010\)](#); Committee on Economic, Social and Cultural Rights, General comment nb. 15 (2002).

<sup>3</sup> [Central Administration of Statistics' Consumer Price Index, September 2022](#)

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disruption of global value chains and sanctions stress supplies. Unemployment has increased during this time and the monthly minimum wage (still set at 675,000 LBP) is now equivalent to US \$23, resulting in a significant decline in income and purchasing power in the country<sup>4</sup>.

## **2. Water Establishments<sup>5</sup> on the brink of collapse**

The current economic breakdown has further undermined already weak Lebanese public water supply services, threatening the sector's financial viability and basic operability by sharply raising costs and lowering revenues. Water Establishments (WEs) depend on their own funds to secure services and operate without the financial support from the central budget. Due to the progressive devaluation of the Lebanese pound (LBP) the cost of water provisioning has increased thirteen-fold since 2019<sup>6</sup>. The current tariffs are inadequate to the context, while 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.

## **3. Reduced access to energy and water**

The ongoing crisis is severely impacting electricity production by the Electricite du Liban (EDL) which forms the main energy source for 87% of the water supply systems across Lebanon<sup>7</sup>. In August 2022, between 2 to 5 hours of electricity from EDL was received in much of the country, with zero hours provided in some parts of Lebanon, which is reflected in a direct decrease in water supplied through public networks.

## **4. Local Authorities increasingly stepping in to provide water services**

In some areas, where Water Establishments are failing to provide services due to financial constraints, municipalities are stepping in to provide water services within their jurisdictions. Nevertheless, only some of the municipalities are able to bear the burden of the operating costs, and the process is not officially recognized, which may lead to further undermining of the WEs' position. Furthermore, local authorities are not equipped to provide adequate operations and maintenance and may compete with mandated institutions over cost recovery, further eroding users' trust in public institutions.

## **5. Costly and unsafe private alternatives**

Without public water services, people are left with no choice but to buy water from private sources. The most available alternative is the private water trucking sector, which is able to influence and control the market, imposing inflated fees, with little oversight from the state. As with Diesel generator service providers in the electricity sector, this alternative market has seen rapid growth and risks undermining public service provision. Similarly, the

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<sup>4</sup> OCHA, Increasing Humanitarian Needs in Lebanon, April 2022.

<sup>5</sup> The four regional Water Establishments are autonomous public sector providers. They are in charge of planning, constructing and operating water, sanitation and irrigation infrastructures under the supervision of the Ministry of Energy and Water.

<sup>6</sup> World Bank. Lebanon Public Finance Review : Ponzi Finance?, July 2022.

<sup>7</sup> WaSH Sector, Water Supply Vulnerability Mapping, November 2021.

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bottled water industry has expanded to an unprecedented scale, and is marked by a dangerous lack of oversight.

## **6. Decrease in funding**

Within the humanitarian and stabilization<sup>8</sup> response in Lebanon, the WaSH sector is increasingly facing funding constraints that may severely impact the support to water supply and wastewater treatment infrastructure serving all population groups in Lebanon, as well as WaSH service provision for more than 300,000 displaced Syrians living in Informal Settlements across the country. This will further result in a devastating deterioration of public health and hygiene for all population groups residing in Lebanon. Moreover, as humanitarian needs rise and are prioritized by donors, implementing partners, and institutions, the medium to longer-term interventions of the sector are severely compromised and threaten to become trapped in an emergency-recovery spiral, and undermining the SDG Nexus Approach.

## **7. Increase in incidents and tensions**

In addition to rising poverty and unemployment, a major tension driver is perceived competition over access to services, including water. As such, the decrease in funding, the ongoing power blackouts and their consequent impact on water supplies to all population groups in Lebanon, leading to gaps in water services, could significantly raise tensions and even lead to incidents and violence between neighboring communities and host communities and displaced populations. Since the second half of 2021, such tensions and incidents have increased across the country as per UNDP's Tension Monitoring System ([ARK/UNDP Regular Perception Survey](#)).

The nature of water-related tensions and incidents differ across governorates:

- In Beirut and Mount Lebanon, water-related tensions and incidents are both inter-communal and intra-communal, specifically anti-establishment, often manifesting as roadblocks or protests against government institutions and service provision companies.
- On the other hand, water-related tensions and incidents in the governorates of Akkar, Baalbek el-Hermel, Bekaa, Nabatiyeh, North, and South are primarily inter-communal and often lead to measures such as cutting water supply for refugee communities and eviction threats due to negative perceptions around Syrians impact on pollution and water consumption.

On intra-Lebanese relations, the distorted market, with increasingly privatized service provision and direct service delivery by certain municipalities are further driving inequalities.

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<sup>8</sup> WASH stabilization projects/partners in the Lebanon context refer to activities supporting water and sanitation public infrastructure and the governance of the water sector institutions, implemented under Lebanon Crisis Response Plan or Emergency Response Plan frameworks by humanitarian actors.

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## 8. Environmental context and contamination of water resources

With the majority of wastewater treatment plants no longer functioning due to electricity cuts and unaffordability of fuel to run the back-up power generators, the environmental damage caused by dumping of untreated wastewater is increasing, both on the coast and inland, with severe consequences for the water bodies and underlying aquifers across all of Lebanon. Measures need to be taken to support already financially weak Water Establishments to take over the remaining wastewater treatment plants from the Council for Development and Reconstruction and to be funded for operation and maintenance while suitable mechanisms for raising revenue for wastewater treatment are put in place. Arrears standing at around 36 million USD, including the operation and maintenance fees for 2022, shall be first settled<sup>9</sup>. Electrical power to wastewater treatment plants needs to be prioritized, as without continuous, 24/7 electricity the plants will not operate properly and treat the wastewater.

In this context, the Ministry of Energy and Water (MoEW) presented to the Government of Lebanon the “Roadmap to the recovery of the water sector in Lebanon”, a paper that draws the path toward a more stable and financially viable water sector in a 5-year management plan. It aims to maintain and improve the service to people across Lebanon while building the technical and financial resilience of the Water Establishments as well as the enabling legal and institutional setting. Despite the adoption of the plan and approval of water tariff increases by the MoEW, the current rates remain well below what is needed for the Water Establishments to cover rising operational costs. Further with public salaries in LBP, in all Water Establishments vacancies, absences, and underperformance have reached an all-time high and now affect even the senior public servants (eg: the General Director of the Bekaa Water Establishment has been a vacant position since February 2022).

## IMPACT

### Water as a Privilege

The cost of water is becoming unsustainable for households across Lebanon, especially those facing severe economic vulnerability. According to the market price monitoring conducted by the WaSH sector partners<sup>10</sup>, the average price of water delivered by water tankers in August 2022 is around five dollars per cubic meter at the black market rate, matching the highest cost per cubic meter in Europe<sup>11</sup>. Similarly, the price of bottled water increased over 5-fold in LBP since January 2021 (see figure 1). For example, a vulnerable household of four people<sup>12</sup> with only one member working and earning the minimum wage, that receives 20% of their water from public sources and the rest from water trucking and bottled water: in July 2021 this household would have paid around 300,000 LBP or 31 USD<sup>8</sup>

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<sup>9</sup> MoEW roadmap to recovery of the Water Sector in Lebanon, May 2022.

<sup>10</sup> Contributing partners: DPNA, LebRelief, Solidarites International, NRC, WVL, Oxfam, Nabad, and SAWA Group.

<sup>11</sup> [Water news Europe \(2022\)](#).

<sup>12</sup> Vulnerability households are across all population groups in Lebanon: Lebanese, Palestine refugees, displaced Syrians and migrants.

to receive sufficient water to meet its basic needs<sup>13</sup>, corresponding to 52% of the household income. The same family in July 2022, will have to pay more than 1,700,000 or 58 USD<sup>8</sup>, which is more than double the 23 USD minimum wage.

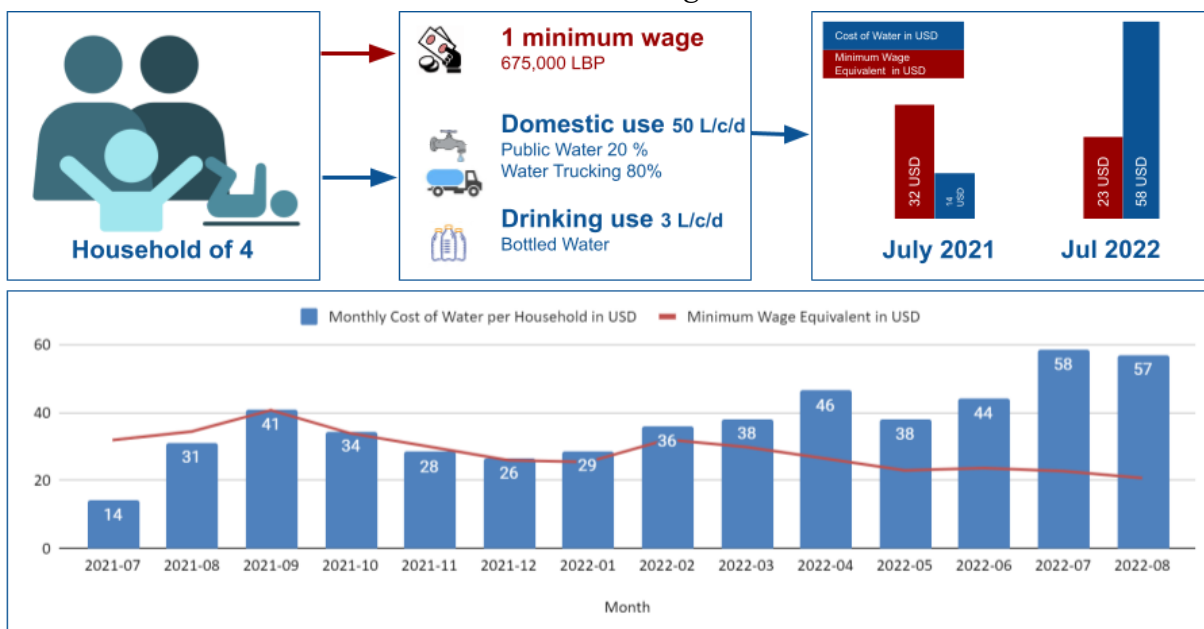


Figure 2: Simulation of water expenses for a household of four members in Lebanon (full data annexed).

The human right to water and sanitation places obligations on States to ensure sufficient, safe, acceptable, physically accessible<sup>14</sup> and affordable water services for all,<sup>15</sup> with the recognition that the cost of water should not exceed 3% of household income<sup>16</sup>. In the current scenario, assuming households are receiving around 20% of the water from the public network, households may have to pay almost a billion USD per year to ensure a minimal sufficient supply of water from private water trucking vendors and bottled water industries.

### Water as a Risk

Private water trucking often provides households with substandard quality water posing a high threat to public health. A 2017 study, presenting analytical testing of water trucked to the population in Mount Lebanon showed that 100% of water samples were exceeding Ministry of Public Health bacteriological water quality standards<sup>17</sup>, compared to 48% identified from all sources according to the JMP UNICEF WHO 2016 study. Given the increasing intermittency of public water supply and water treatment operational

<sup>13</sup> In this analysis we considered drinking 3 L/c/day (Sphere 2022) and for domestic and hygiene 50 L/c/d (World Bank).

<sup>14</sup> 1000 meters away from home or 30 minutes.

<sup>15</sup> UN General Assembly Resolution 68/157 (2014). The human right to safe drinking water and sanitation.

<sup>16</sup> UN-Water Decade Programme on Advocacy and Communication.

<sup>17</sup> Constantine et al, 2017. The role of the water tankers market in water stressed semi-arid urban areas: Implications on water quality and economic burden.

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challenges, the quality of supplied water is expected to decrease further. The situation is also impacting different institutions such as schools, hospitals and detention centres. The already overwhelmed Lebanon health sector and increasingly vulnerable households won't bear the widespread outbreak of water-borne diseases. That's particularly concerning in the context of a heavily contagious cholera outbreak in neighbouring Syria, which has already crossed over into Lebanon.

**Reduction of water and sanitation provision in informal tented settlements (September 2022).**

*According to the standard agreed by the WaSH Sector people living in the informal settlements should access a minimum of 35 litres per person per day to cover drinking, cooking, hygiene and domestic needs . Given the difficulty in ensuring a sustainable approach to water and wastewater service provision, in over 45% of informal settlements, water is trucked into the location to provide water to the residents. The cost of this expensive operation has been increasing, due to the sharp rise in fuel costs. At the same time, the funding available to provide these services has decreased below the anticipated levels. As of September 2022, in some cases, the amount of water supplied has been significantly reduced to cover only what is needed for drinking, basic hygiene practices and cooking, i.e. 7.5 litres per person per day. Similarly, the extent to which organizations are able to remove sewage in informal settlements has also reduced in line with the reduced water provision.*

*Response actors remain concerned that these changes will have an impact across sectors, as people struggle to access the water and sanitation they need, with a threat of cholera looming in the country. Some examples include:*

**Health:**

*Outbreaks of diseases of epidemic potential - including hepatitis A - have already been recorded in Lebanon in 2022. Insufficient water increases the risk of foodborne and waterborne illnesses. Declines in related hygiene practices, particularly hand hygiene, can increase the risk of disease transmission among households and communities. For women and girls lack of water can cause an increase in gynecological infections (very often non-reported because of stigma) and challenges related to menstrual hygiene. Women and girls are also more exposed to getting into contact with contaminated water, therefore diseases like hepatitis, cholera, etc, through their domestic roles, including manipulating contaminated raw food, taking care of sick family members, cleaning latrines, handling contaminated water.*

**Protection:**

*Lack of water can expose women and children to increased protection risks, including gender-based violence, because they will be forced to travel longer distances to fetch water. In addition, risks related to sexual exploitation and abuse for women and girls may increase as they might have to rely on other persons to get more water, receive price reductions or be prioritised in distribution/water trucking cycles. Gender-based violence increases during outbreaks of infectious diseases.*

*Individuals living in facilities run by private or public institutions such as prisons, detention centres, mental health institutions, elderly homes or orphanages may be unable to cover the extra cost of water for drinking and domestic hygiene purposes leaving them without water and at greater risk of exposure to water-borne diseases.*

**Social Stability:** Cut in Water and Sanitation services to informal settlements will lead potentially to more informal/illegal access to water and random discharge of wastewater and disposal in surface water and on riverbeds by displaced Syrians, leading to a lack of access to safe water including drinking water, and pollution of underground water and natural springs used in agricultural irrigation, which would further increase the pressure on resources and cause severe hygiene, environmental and health issues. In addition, in case of a Cholera outbreak in the country with no access to water and wastewater services at informal settlements, this would increase the spread of infections and would lead to stigmatization and an increase of hate speech against the displaced Syrians community. All of this will increase inter-communal tensions, and access issues and also affect the protection space in terms of discrimination by the host community and restrictive measures by authorities including eviction threats potentially, specifically at tension hotspots and areas with the highest concentration of displaced Syrians at informal settlements.

## RECOMMENDED ACTIONS

The WaSH Sector has identified the below actions required to provide relief to affected households and mitigate the different risks arising from the current situation.

WHAT	WHO	WHEN
<b>Immediate actions</b>		
0-Timely provide funds and enabling environment to effectively contain the ongoing cholera outbreak	Government of Lebanon MoEW, MoPH, MoI, MEHE, MoE, MoA Donors WaSH Sector	October 2022-March 2023
1-Provide critical support to ensure continuity of water supply via public infrastructure and the operational capacity of Water Establishments and municipalities (incl. fuel, chlorine, spare parts and consumables for backup generators and WE's technical and managerial staff). This is the most cost-efficient solution to provide immediate relief at the household level, both increasing the availability and safety of water and reducing the expenditure on water for the most vulnerable.	Government of Lebanon Donors	October 2022-March 2023
2-Conduct the full-scale countrywide assessment on the feasibility of renewable energy solutions (especially solarization) for the water supply and wastewater treatment infrastructure.	MoEW supported by the Energy Sector and the WaSH Sector	September 2022 - December 2022



Identify pumping stations serving critical institutions such as hospitals, schools, detention centers.	Donors	
3-Show real political support to the WaSH Sector Recovery Plan and support timely implementation of the top priority commitments towards the plan. A 5 year commitment by the Government to meet the funding gap until the WEs can become self-financing.	Government of Lebanon	October 2022 - onwards
4-Action the Recovery Plan without hesitation, starting with appointment of new Board of Directors and Bekaa WE's General Director, as well as revising recruitment regulatory framework for WEs staff.	Government of Lebanon, MoEW	October 2022
5-Jointly monitor and analyze water-related tensions and incidents, including resulting protection risks and access impediments related to community tensions and water supply.	Social Stability sector, WaSH Sector, Protection Sector, Access Working Group	October 2022
6-Renew dialogue on improving efficiency and cost-effectiveness of support to Informal Settlements and host communities <sup>18</sup> .	Government of Lebanon	October 2022 - onwards
<b>Mid to longer-term actions</b>		
7-Reduce water systems' reliance on fossil fuel and electricity from the public grid through solarization of feasible water systems components and/or increase the gravity-fed water supply solutions.	Government of Lebanon (Loans) WaSH Sector Energy Sector Water Establishments Donors	October 2022 - onwards
8-Provide direct funding to mandated institutions for operational support (WEs) and reconsider the role of partner organizations as Third Party Monitoring (TPM).	Donors, WaSH Sector	Next funding cycle

<sup>18</sup> The Ministry of Energy and Water has reserves on this point as this is in contradiction with the policy of Lebanon regarding permanent infrastructures in the Informal Settlements.

9-WaSH sector partners to design WaSH interventions with a community-oriented approach, serving all population groups in the covered area.	WaSH Sector	Next funding cycle
10-Improve data management and information transparency with the public. Support awareness raising through public outreach campaigns aiming for an increased subscription and collection rate.	Water Establishments, supported by the WaSH Sector	October 2022-onwards
11-Work closely with MOEW and WEs to regulate the water trucking market to ensure distance-based pricing and WE sourcing and tariffing.	Government of Lebanon, supported by the MoEW Water Establishments	October 2022
12-Work closely with the Ministry of Energy and Water in coordination with the Ministry of Economy and Ministry of Industry to monitor and regulate the cost of bottled water.	Government of Lebanon	2023 Onwards
13-Support efforts to minimize water losses and promote water conservation, for example through the introduction of bulk water metering at water source level.	Government of Lebanon (loans) WaSH Sector partners Water Establishments Humanitarian and development frameworks Donors	October 2022 - onwards

## Additional Figures and Data

The main source of data for the analysis presented is the WaSH Sector Water Market Monitoring program, an initiative led by 7 NGOs (DPNA, LebRelief, Solidarites International, NRC, WVL, Oxfam, Nabad, and SAWA Group) that include the systematic data collection of prices from water vendors (supermarket, minimarkets, registered water bottled companies and water tankers). The data is collected monthly in activity info, all the data used in this analysis are shared in the following spreadsheet document, that integrates this brief:

[Water Market Analysis August 2022](#)

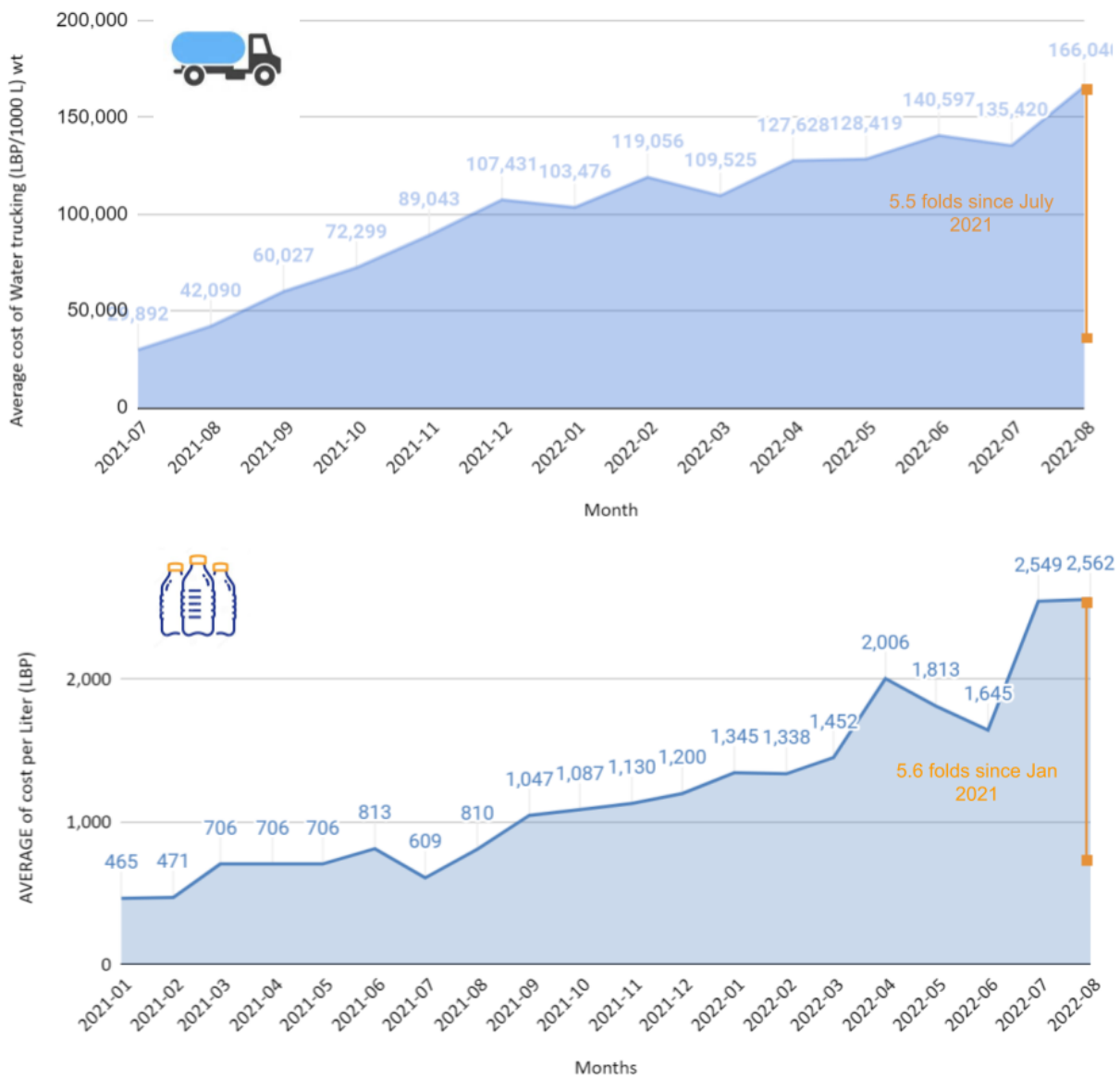


Figure 3: Changes in the cost of water trucking and bottled water over the last year. Data from the Water Market Monitoring from the WaSH Sector.