



WATER SECTOR

PEOPLE IN NEED				
3,740,499				
PEOPLE TARGETED				
1,959,428				
REQUIREMENTS(US\$)				
<table border="0"> <tr> <td>2017</td> <td>280 million</td> </tr> <tr> <td>2018</td> <td>280 million</td> </tr> </table>	2017	280 million	2018	280 million
2017	280 million			
2018	280 million			
PARTNERS				
39				
GENDER MARKER				
2a				
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SECTOR OUTCOMES

Outcome #1

280 m

By 2020, 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.

Indicators

- Percentage increase of households to access sustainable and safe water
- Percentage increase of boys, girls, women and men with appropriate hygiene knowledge and practices
- Percentage increase of households with safely managed wastewater

POPULATION BREAKDOWN

POPULATION COHORT	PEOPLE IN NEED	PEOPLE TARGETED	51% Female	49% Male
Lebanese	2,582,427	1,032,971	513,386	519,197
Displaced Syrians	960,000	768,000	399,360	368,640
Palestine Refugees from Syria	20,161	16,129	8,145	7,984
Palestine Refugees in Lebanon	177,910	142,328	71,876	70,453

Situation analysis and context

The urgent state of Lebanon's water sector today is a cumulative reflection of fifteen years of civil war, two decades of post-conflict under-investment and an unprecedented recent emergency. The water sector has seen a 30 percent increase in the number of individuals in-country requiring safe water and proper wastewater management, challenging a system where one in five households still lacks even a basic water connection, where networks are fragile and unreliable and where only eight percent of sewage is effectively treated.ⁱ Lebanon's already fragile water resources are buckling under extreme pressure.¹

In 2010, the government launched a long-overdue overhaul of its water networks, quality assurance systems and its largely inoperative wastewater treatment capacity via the National Water Sector Strategy. These outlined critical investments in oversight, infrastructure and resource management essential to serve the country's then 4 million inhabitants already facing a 40 percent water supply deficit. Approximately one million had never received water through a piped household network.^{2 ii}

In the wake of the crisis, the focus necessarily switched from resource management to emergency relief:³ to address the needs of an extra 1.5 million displaced Syrians dispersed in hosting communities, a 15 percent rise in poverty rates among Lebanese, damaging coping mechanisms, and surging wastewater and solid waste pollution.

Successive response strategies from 2013-2016 have set out to avert the most drastic potential consequences to assure supply for settlements without water or wastewater access, prevent waterborne disease outbreaks and relieve degrading living conditions. The Ministry of Energy and Water (MoEW) estimates that more than two thirds of all resources received through appeals since 2015 have been spent on water trucking, latrine construction and desludging for families displaced from Syria living in temporary shelters and informal settlements.

Meeting these needs continues to be a daily and costly challenge with little sign of abetting. At least 60 percent of the 227,780 persons displaced from Syria now in informal settlements still rely on trucked water that is unregulated and often from illegal sources,ⁱⁱⁱ while the rest meet needs from unsafe wells or illegal network tapping.⁴ One latrine serves at least nine people on average some of

(1) By 2017, the demand for drinking water is estimated to reach more than six times projected estimates according to MoEW.

(2) Out of a total demand of 1,500 million cubic metres, available exploited public resources can only provide 900 million cubic metres.

(3) Lebanon's 2011 population growth was assessed by the World Bank at a 1 percent annual rate. From 2011 to 2016 Lebanon has experienced the equivalent of an annual population growth rate of 6 percent (<http://data.un.org/CountryProfile.aspx?crName=LEBANON>). The GoL's estimates that between 2011 and 2015, the number of people inside Lebanon grew by 30 percent.

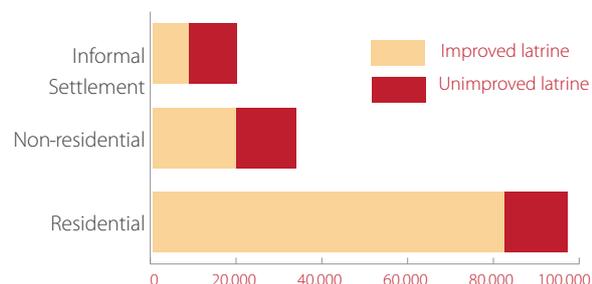
(4) 227,780 individuals in active informal settlements and those with less than four tents. However, there are also 15,289 individuals in small shelter buildings in these informal settlements.

them community-built without the tools to meet quality standards. The response would need to install twice as many just to reach the level of one latrine per household. Wastewater is collected in informal settlements primarily in holding tanks and cesspits which require frequent desludging and trucking to the very limited facilities that can process it; inevitably much of this wastewater is not treated, adding to the health and environment risks in the country.

Meanwhile, the demand for humanitarian services continues to grow each year a consequence of dwindling family resources.⁵ Fewer Syrian families could afford rent in 2016 compared to 2015 and are being evicted from their previous shelters, leading to a proliferation of small informal settlements. The number of informal sites rose within the last year to 4,312, a 34 percent increase in locations and a 30 percent increase in resident families.^{iv} More people and locations to reach inevitably mean more shortfalls and gaps in supply and services. Informal settlements in Akkar and the Bekaa region have been hardest hit as they host 13 percent and 77 percent respectively of the population in informal settlements.^v

Needs are also particularly acute in urban settings of hosting communities where 12 percent of displaced Syrians live in non-residential buildings, such as worksites, garages and shops, which are overcrowded and lack basic water and sanitation services.^{vi} 23 percent of displaced Syrians living in non-residential buildings reported not having enough water compared to 20 percent in informal settlements and 17 percent in residential buildings. 42 percent of displaced Syrians living in non-residential buildings do not have access to an improved toilet facility (flush toilet or improved latrine) compared to 57 percent in informal settlements and 16 percent in residential buildings.⁶

Number of Syrian households that have access to improved or unimproved latrines by shelter type.
(UNHCR ongoing household profiling of registered Syrian refugees)



As of October 2016, approximately three quarters of all households assessed: prioritizing first the most socio-economically vulnerable households. Unimproved includes traditional pit, bucket, open air. Improved includes flush toilet and improved pit latrine.

Supply and service shortfalls are not limited to

(5) 70 percent of displaced Syrians are now below the poverty line (\$3.84 per /capita/day), compared to 48 percent in 2014. Poverty rates among Lebanese have also risen by 15 percent since 2011.

(6) UNHCR ongoing household profiling of registered Syrian refugees (as of Oct 2016, approximately three quarters of all households assessed: prioritising first the most socio-economically vulnerable households)

humanitarian assistance. They are one aspect of a much wider water quality crisis affecting Lebanon's health, economic wellbeing and stability.

Most of Lebanon's most vulnerable inhabitants live in permanent housing, including urban settlements built without official permission.⁷ Household surveys have traditionally reported "safe water" access rates in these areas at close to 100 percent - suggesting all families can access some form of "improved" water source.

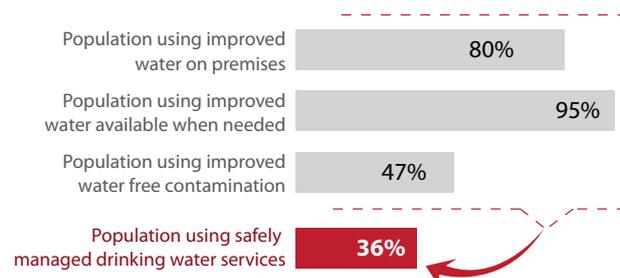
But the most recent data from the 2016 Joint Monitoring Program survey in Lebanon dramatically challenges this assumption. Findings of this survey, which include water quality analysis, show that almost two thirds of people in Lebanon are not accessing a safely managed drinking water supply.^{8 vii}

Percentage of Population in Lebanon using safely managed water.

(UNICEF, WHO - 2016) Joint Monitoring Program

Water must meet all three of the following criteria to be considered 'safely managed':

1. Readily accessible to the household;
2. Delivered in sufficient quantity to meet needs; and
3. Containing zero colony-forming units of E-Coli per 100ml



Underlying and root causes of these excessively low safe water supplies can be summarized as follows:

A challenging management context - Lebanon's water governance is undermined by lack of funds, administrative and technical staffing gaps, incomplete technical data and weak structural incentives for good integrated water management (including weak tariff collection). Regulatory, legislative and management initiatives targeted by the 2010 Water Sector Strategy are still incomplete, with capital projects still prioritized over other essential reforms. The sector as a whole is still struggling to finance and implement critical mechanisms for water quality and resource management, contingency planning, supply partnerships and end-user responsibility and feedback. Lack of comprehensive water quality, quantity and health impact data also makes it hard to prioritize existing funds, and develop systems to incentivize sustainable water resource management –

(7) A national exercise correlating poverty data and UNHCR registration data has identified 251 cadastres as particularly vulnerable – home to 87 percent of displaced Syrians and Palestine Refugees, and 67 percent of deprived Lebanese. A planned WASH vulnerability framework will further refine this analysis to define priority areas for water and wastewater services.

(8) UNICEF, WHO (2016), Joint Monitoring Program. Water must meet three criteria to be considered 'safely managed': 1. Readily accessible to the household; 2. Delivered in sufficient quantity to meet needs; and 3. Containing zero colony-forming units of E-Coli per 100ml

including by end-users.

Compromised supply and quality systems - By end of August 2016, the sector received only \$90 million out of \$390 million requested in the 2016 appeal. This is the lowest level of sectoral funding since the Syrian crisis began – insufficient to make meaningful investments in infrastructure and water quality systems.

Two thirds of Lebanon's natural water resources are contaminated at source level (up to 90 percent in urban areas).^{9 viii} Protecting and delivering this water is effectively impossible, because of dilapidated infrastructure, insufficient staff and irregular power. Half of Lebanon's transmission networks need repair, whilst almost half of all piped water vanishes (as non-revenue water) before reaching households. Power supply shortages (often down to just 3 hours per day) means many families cannot rely on their connections to electricity networks to meet their minimum water needs. Instead, many resort to unsafe and more expensive alternative sources.^{10 ix} Much of the existing infrastructure lays dormant (even after repairs) due to lack of power as well as operational and maintenance capacity of the Water Establishments. Wastewater is a key example: sewage treatment plants built through international financing are still not operating or operating beneath capacity. This means only eight percent of wastewater is adequately treated, while wastewater network coverage is 60 percent.^x Households not connected to wastewater networks often use cesspits and septic tanks which provide minimal reduction in risk of raw sewage leaking directly into the environment and contaminating groundwater resources.

Agriculture and industry continue to aggravate water supply and quality problems. Wasteful and harmful irrigation and application of fertilisers, effluents and waste discharge from health centres and industrial wastewater and solid waste all pollute natural water sources and stress Lebanon's fragile groundwater. Together, agriculture and industry account for 70 percent of the country's water consumption which has increased with almost 30 percent additional people in country. Lebanon's 2015-6 solid waste crisis has added to these pollution burdens, increasing the volume of waste dumped into natural water resources.

The surge in demand has added to Lebanon's vulnerability to drought cycles and climate change, stressing the quantity and quality of reserves and creating supply challenges.^{xi} The responsibility for resolving these issues largely rests with Lebanon's four Water Establishments; however, these are under-resourced and under-staffed. Legal and de facto responsibilities overlap between the Ministry of Energy and Water, Water Establishments and municipalities, fostering a persistent lack of clarity over mandates and complicating water project implementation. Limited contact between some

(9) 70 percent of Lebanon's natural water sources have bacterial contamination.

(10) Up to 50 percent of transmission networks need repair and 48 percent of water sent through networks is unaccounted for.

Water Establishments and end-users creates gaps in responsiveness and accountability. This contributes to dissatisfaction, poor resource management and non-payment of tariffs – which in turn stresses resources and affects water quality. Water Establishments also lack water quality sampling tools, systems and monitoring plans along the supply chain, or bulk water meters for better supply management and forecasting during seasonal periods of stress.

Damaging patterns of demand and use: Without incentives and options to manage resources, or a reliable supply, people are undermining their own drinking water quality. MoEW estimates that at least 55,000 - 60,000 unlicensed wells have been dug.^{xii} More homes are being constructed outside the water network – sometimes illegally and sometimes as a result of poor land-use planning. Water networks are being tapped by those unable to afford bottled or trucked water – which drains resources to the tune of \$40 per month per household in a context of growing poverty (compared to as little as \$21 per month for network supply).^{xiii} Wastewater from kitchens, laundry and bathing is disposed directly into the environment, spreading pollution and disease, particularly in informal settlements and sub-standard shelters.

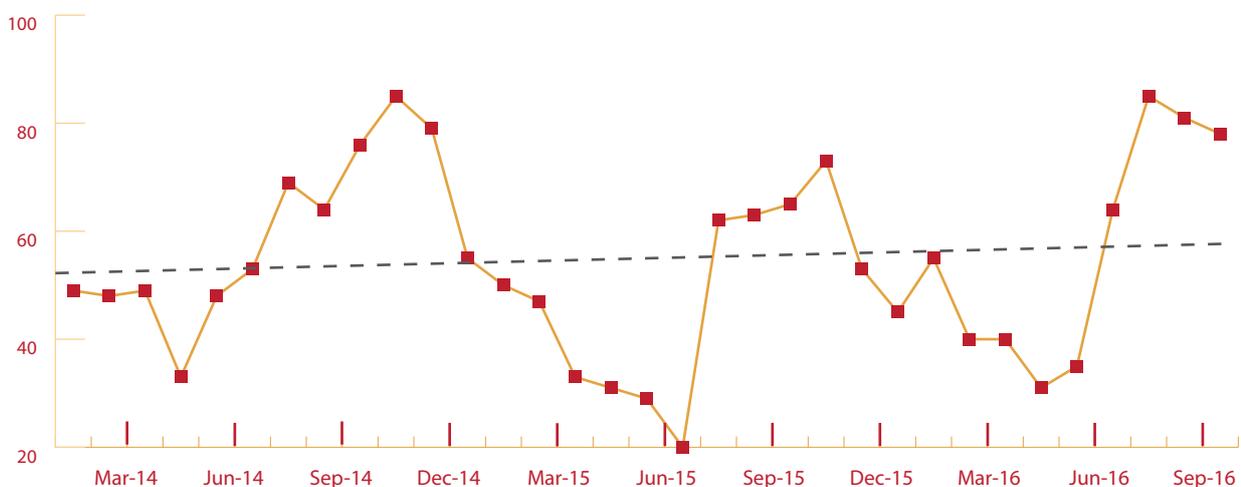
Consequences have hit certain vulnerable groups hardest, and also Lebanon's broader political economy:

- **Children under 5** account for the great majority of all waterborne diseases reported in 2015, and represent half all those living in sub-standard or informal shelters.¹¹ Child diarrhoea rates – at 13 percent for displaced Syrians, 18 percent for Palestine Refugees and 10 percent for Lebanese host communities – are spiking among children in the most vulnerable communities.^{xiv} Nearly 20 percent of Syrian children

in Mount Lebanon and Akkar reported one diarrhoea episode within two weeks of questioning, suggesting a chronic problem.^{xv}

- Nutritional deficiencies caused by persistent diarrhoea can easily hide in the very young – surfacing only in reduced cognitive capacity when children attempt to learn and affecting prospects for a lifetime. It is deeply concerning that water and food-linked disease account for over half of all communicable disease reporting since the beginning of 2014.¹⁶ Viral hepatitis A accounts for one in four of these, with half of all cases reported in the Bekaa.^{xvii}
- **Women and adolescent girls** face particular challenges to their health, protection and dignity without access to safe sanitation and means to ensure personal hygiene – particularly those displaced from Syria in informal settlements and non-residential buildings where conditions are very poor and risk of sexual and gender based violence may be higher.
- **People with special needs** struggle more than most and have received little support. Around 14 percent of Syrian HHs reported having one member with special needs, three quarters of whom lack access to a toilet or bathroom adapted to his or her disability.^{xviii}
- **Displaced Syrians** experience greater challenges in terms of sanitation and hygiene compared to Lebanese. Whilst access to safe water is a similar concern for both, only 41 percent of Syrians reported having access to flush toilet facilities compared to 83 percent of Lebanese. Furthermore, 16 percent of Syrians reported having no access to showering or washing facilities and Lebanese only 2 percent.^{xix}

Percentage of all communicable disease cases that are food & water borne
(MoPH website, surveillance data)



Trendline indicates a steady increase in the proportion of food and water borne disease incidents

(11) Based on Ministry of Public Health reporting of waterborne disease rates as well as UNHCR's registration data.

- **Palestine Refugees** served by UNRWA's water and sanitation services are feeling the impact of a demand 20 percent higher than normal. One third of Palestine Refugees from Syria reported not having access to sufficient water for basic livelihood including drinking and cooking.^{xx} Whilst less than one third of Palestine Refugees have access to safely managed water supply.^{xxi}
- **Economic and environmental costs** of water resource degradation have not been fully tallied. However, a comparative assessment of the GDP impact of pre-crisis water degradation in Lebanon suggests that poor resource management was costing the country the equivalent of 1 percent of GDP per year – now in the hundreds of millions of dollars.^{xxii} The cost of treating diseases associated with poor water supply would increase this figure significantly – without factoring in the longer-term impact of disease-related under nutrition on Lebanon's poverty rates and economic growth. Inadequate supplies have also impacted Lebanon's agriculture and other productive, revenue-generating sectors, impacting livelihoods.
- **Stabilization consequences** are being more widely felt every year the crisis continues, as inequities widen and water becomes a resource subject to pressure and competition particularly between hosting communities and persons displaced from Syria. Tension has been reported between Lebanese farmers and persons displaced from Syria where settlements adjoin agricultural land and affect agricultural water sources. In 2016, mayors of several municipalities hosting large populations of persons displaced from Syria asked the national government to intervene, after communities accused informal settlements of causing environmental and groundwater contamination.

Mitigation measures through the 2015/6 response program brought together 35 organizations to reach more than 800,000 people with some form of water and sanitation service.¹² Half of those reached were poor Lebanese. However, this represents only 37 percent of the two million people targeted – a goal complicated by under-financing for sectoral development and an over-stretched emergency response. The response made some positive progress, connecting 2,874 households to public networks, repairing or extending 95.5km of water pipes and improving or building 4,034m³ of public water storage infrastructure. With projects still ongoing in late 2016, overall annual figures will likely climb considerably. But without water quality and quantity monitoring to ensure protection of resources, supplies reaching people through these networks are not reliable.

Partners also trucked water to 141,000 trucking-dependent persons displaced from Syria in informal settlements and provided or rehabilitated over 3,700

latrines. Hygiene promotion programs aimed to incentivize health protection and environmentally-friendly resource management; however these only reached a third of individuals targeted due to limited financing and capacity. A key part of this program targeted Lebanese citizens, to boost acceptance of water metering, promote conservation and encourage them to engage more actively with service providers. A large monitoring effort continues to track changes in need and use patterns in informal settlements – including the UNICEF, UNHCR, WFP Vulnerability Assessment of Syrian Refugees, the Inter-Agency Mapping Platform and the on-going UNHCR Household Survey.

Learning from challenges: Under-financing was perhaps the greatest challenge facing the 2016 response, compounding the effects of already struggling institutions and unmet demands, obliging a piecemeal rather than a comprehensive approach. A national policy that bans the installation of permanent infrastructure in informal settlements continues to drain resources, both human and financial. Future solutions will require innovation and political will to scale them up.

Promoting responsible water use and protecting Lebanon's social and environmental health will be an uphill struggle as long as the sector lacks strong financial incentives, sufficient needs based evidence and data, mandate clarity in localities and adequate management of water quality and resources. Ultimately, Lebanon's water resources and the people depending on them require a concerted effort across the span of Lebanon's public and private sectors.

Based on past experience, the coming response must reflect: (i) the urgent need to strengthen focus on systems responsible for water quality and quantity nationwide, with a particular focus on equity; (ii) a major investment in wastewater management to reduce health and environmental risks; and (iii) a national consensus on cost-effective solutions for informal settlements. The MoEW, the Water Establishments and sector partners are already considering options for the latter, inter alia through hydrological studies to investigate dedicated water management options for large sites. One large informal settlement is also piloting a temporary septic system to reduce cost and environmental burdens. These initiatives must be built upon as the response develops.

Overall Sector Strategy

Lebanon's pre-crisis National Water Sector Strategy is six years behind schedule. Instead of making measurable progress on reforms to management and infrastructure, or rolling out nationwide incentives for responsible use, this sector has had to run merely to keep pace with accelerating supply needs.

A four-year vision

This coming period is an opportunity to balance and reconfigure a sector so vital to Lebanon's social wellbeing

(12) Data correct as at 30 September 2016

and economic stability. By 2020, vulnerable people in Lebanon - irrespective of their shelter type - should be able to access safe water for drinking that is sufficiently and sustainably supplied. At the same time, the health and economic costs of environmental degradation from unsafe wastewater management should also be significantly reduced.

This goal can only be reached through three complementary and equally critical measures:

1. Finding a national solution for cost-effective servicing of informal settlements;
2. Enhancing Lebanon's capacities to deliver reliable water quality as well as quantity, nationwide and in areas of greatest vulnerability;
3. A heavy investment in wastewater management, to mitigate health and environmental risks.

To achieve this, the sector response aims to drive measurable changes on three key levels.

At the institutional and policy level, the sector will aim to fill policy and legislative gaps, empowering the Water Establishments and enabling the MoEW to launch a long-delayed strategy to monitor water quality and quantity. This is the first step to helping government and communities make better use of resources. The response will also aim to develop a stronger evidence base for water investments, including a water and sanitation vulnerability framework for displaced Syrians, host communities and Palestine Refugees, integrating related health data.

At the service delivery level, the response will increase the efficiency in supporting humanitarian water and sanitation needs of displaced persons from Syria without access to public systems and rehabilitate and extend the outdated water infrastructure that serves host communities. As part of the support program for host communities, the response will aim to build the capacity of Water Establishments to recover costs through appropriate tariff systems and deliver a higher standard of service that ensures better quality, quantity and improved operation and maintenance.

At the community level, the response will aim to empower displaced Syrians and vulnerable host communities to change behaviours that damage their health, their environment and undermine water security - and participate more actively in planning to identify solutions for their water and wastewater needs.

A more detailed breakdown of the changes needed at each level is included below:

The oversight and management level

If Lebanon can implement a comprehensive resource management, water partnership and water quality and quantity strategy, including by filling data and staffing gaps, it will be able to make better use of resources and channel them more effectively to investments

linked most closely to health and poverty outcomes. In addition, if Lebanon can use improved data platforms to institute rolling drought and flood mitigation plans, its management of water resources during periods of stress would improve. If the MoEW, in collaboration with the Water Establishments, were to develop and launch new platforms for end-user feedback and response, the amount of information available for planning would increase - as would incentives to pay tariffs. Equally, if Lebanon can move towards a metered payment system, it would enable better forecasting of supply and demand, while also incentivizing conservation.

Across the service delivery chain

If Lebanon can finance and activate a nationwide water resource and quality and quantity monitoring system and make sufficient investments in the operation and maintenance of networks accounting for the greatest bulk of non-revenue water, water sources will become less stressed and damaging coping mechanisms less needed. If wastewater treatment plants can be brought to full operating capacity with trained staff, the environmental burden from current wastewater pollution will be less. If modern agricultural systems become more widespread, and industry held accountable for dumping waste in rivers, this would improve quality and stability in natural water resources. If Water Establishments are helped to coordinate better, including with municipal authorities, and to develop accountable, responsive relationships with end-users, then public incentives to pay tariffs, protect networks and respond to service outages will be enhanced. Equally, if a national solution can be found for more cost-effective servicing of water and wastewater needs in informal settlements, more funds would be available for wider investment in Lebanon's wider water quality and supply issues, and the health and environmental impact of poor wastewater management would be greatly reduced - particularly for children under five.

At point of use

Finally, if Lebanon can finance and support a widespread, behaviour change strategy, integrated with broader public health campaigns and focusing particularly on localities most vulnerable to supply and quality gaps, then vulnerable communities would be in a better position to protect their health and environment through reliance on unregulated and unsafe services - and tensions over water competition and environmental pollution would be less likely to arise. If families can be empowered to work together to identify where needs could be met more effectively, and communicate more positively with Water Establishments, then service reliability and accountability would improve.

Strategic objectives and sector response

The 2017-2020 Water sector strategy aims to establish a platform for positive, progressive change: in the cost-effectiveness and reach of humanitarian services, in the capacity of regional institutions to provide quality

services in an accountable way, in the ability of vulnerable people to make better water, sanitation and hygiene choices protecting their health and the environment, and in national management platforms and partnerships for the water sector.

This strategy builds on work begun under the LCRP 2015-16, which created a range of sectoral initiatives and partnerships for supply gap-filling, information management, capacity-building, infrastructure rehabilitation and community mobilization.

By emphasizing equity, quality and accountability, the strategy aligns with Lebanon's efforts to meet obligations under Sustainable Development Goal (SDG) 6, as well as related targets for child mortality and under-nutrition in SDGs 2 and 3. SDG 6 ensures availability and sustainable management of water and sanitation for all, including paying special attention to the needs of women and children and those in vulnerable situations.

Institutional relationships need reinforcement as the water sector moves towards full decentralization. The MoEW is the strategic, management and oversight lead for the sector, responsible for: the development and updating of the sector's strategy, identification of water resources and developing the water and wastewater master plans. Law 221 established the four Water Establishments as independent bodies under the Ministry of Energy and Water in charge of water/wastewater infrastructure and making infrastructure investments based on the master plans. This law preserved the responsibility of the Litani River Authority to manage and use the irrigation water in its geographical zone (West Bekaa and part of South Lebanon). Since the Water Establishments depend mainly on revenues raised from the subscribers, they are operating at a loss and struggle practically to invest resources. Therefore, the MoEW is still funding infrastructure investments centrally, either directly through its own yearly budget of approximately \$20 million or through implementing partners. These include the Council for Development and Reconstruction (for large-scale infrastructure) and, since 2011, UN agencies. Other actors are filling gaps left by under-resourced Water Establishments by supporting local water and wastewater infrastructure projects related to municipalities and local water committees that remain de facto in charge of the service provision in their area despite Law 221. Some of these projects lack guaranteed quality standards and may aggravate water availability and quality problems in the surrounding area. This delayed transition towards a fully self-financing and decentralized water authority model has created confusion around responsibilities and financial entry points for investors. The process of updating the regional water master plans in 2017 will set priorities to guide all implementing partners; this will be complemented by a Ministry-led process to reinforce clarity on institutional roles and responsibilities, for a more coordinated investment process.

The sector response is guided by the broader strategies and plans of the GoL, primarily through the National Water Sector Strategy (MoEW, 2010) and the Wastewater Strategy (MoEW, 2010). In addition, it uses various assessments conducted by different agencies to understand where the most urgent and critical needs are. In addition to the national situation analysis captured in MoEW sector strategies, other critical data guiding this strategy include the Joint Monitoring Program 2016 (JMP, UNICEF, WHO), the Vulnerability Assessment of Syrian Refugees (VASyR 2016 – conducted by UNHCR, UNICEF and WFP), UNCHR's ongoing Household Profiling and the Inter-Agency Mapping Platform. In 2017, sector partners will aim to combine these data into a comprehensive WASH-related vulnerability mapping platform.

2.1 Sector Outcomes and Outputs

The sector response for 2017-2020 has one overarching objective and three outputs each with priority interventions outlined for 2017:

Outcome 1 - By 2020, more vulnerable people in Lebanon are accessing sufficient and safe water for drinking and domestic use with reduced health and environmental impact from unsafe wastewater management

Output 1.1 - By 2020, national institutions, frameworks and partnerships to manage resources and services are strengthened

This output aims to strengthen national institutions, frameworks and partnerships to manage resources and services with a particular focus on quality, equity and accountability.

Priority interventions 2017: At the national level, the response will support the Ministry of Energy and Water to deliver reforms it has identified as sector-critical. Partners will review and update priority sector strategies and frameworks and in particular support the development of a national water quality monitoring program, including measures to assess quality along the supply chain from source to end-user, and a national end-user feedback mechanism. The sector will also support reforms for water quantity management – including potentially through supporting demand management initiatives, the introduction of meters and the safe sustainable management of water resources prioritising those used for drinking water supply.

To improve the quality of planning and forecasting, the response will combine the various Water Sanitation and Hygiene surveys into a new information management platform designed as a comprehensive WASH vulnerability framework, to support proper targeting of interventions. Partners will also support the MoEW to strengthen rolling contingency plans for natural drought and flood cycles or other demand-related emergencies such as water-borne disease outbreak.

Finally, the sector will support cooperation between the MoEW and other key ministries and responsible

institutions, as well as Lebanon's broader political economy, to deliver a better and more comprehensive client focused service. Partners will help to strengthen water supply partnerships, including through the private sector. They will link critical water, wastewater, health and nutrition interventions through an integrated action plan for child survival, working with the Ministry of Public Health (MoPH) and other key Ministries. They will also develop and launch a national hygiene education program for schools in partnership with the Ministry for Education and Higher Education.

Output 1.2 - By 2020, the quality, quantity and reliability of water services have increased for communities with greatest water vulnerability

This output has two components:

1) Ensure humanitarian water and wastewater service delivery for those with least access, primarily displaced Syrians in temporary shelters, by implementing more cost-effective solutions to reach them.

Priority interventions 2017: Water trucking and a water voucher system will continue to be the primary pathway to meet the needs of families displaced from Syria living in informal settlements. The response will also improve household capacity to store and manage water safely by providing and repairing water storage tanks at household level and supporting the operation and maintenance of site water points.

The program will continue to support latrine construction in informal settlements, towards a goal of one latrine per household. This program focuses particularly on households where persons with special needs require adapted facilities and women or adolescent girls need safe access to facilities to minimise risk of sexual or gender-based violence and to maintain dignity. Partners support with repair, maintenance and decommissioning of temporary sanitation facilities in agreement with landowners – an essential activity as evictions continue and families are forced to move from site to site. They will also continue to desludge and transfer wastewater to functioning treatment plants enhancing the capacity and operation and maintenance to accommodate additional load.

2017 will see the expansion and implementation of a program to address special water and sanitation needs across informal settlements, including for people with disabilities, whose access to traditional facilities is often restricted, and for women and girls, who have particular needs in terms of privacy and dignity. The 2016 program to train implementing partners to better identify and map these needs will be expanded into a broad community-engagement strategy to develop and implement solutions.

The sector will also seek to make a shift towards more innovative humanitarian approaches – using studies and evaluations to identify and scale up more cost-effective solutions for water and wastewater management in

informal settlements. This effort will be essential while there is a government policy against families living in informal settlements connecting to national network infrastructure. Results from hydrogeological surveys will be analysed, alongside other data, to identify potential alternative water-sources to reduce reliance on unregulated trucking and unregistered wells. The sector will continue to advocate for a national consensus on reducing reliance on high-cost, temporary interventions in informal settlements, and to bring various governmental layers into dialogue on alternative, cost-effective solutions. The wastewater management situation in informal settlements is currently being assessed in detail through a consultancy with the aim of determining the most appropriate solutions that are practical to implement and significantly reduce health and environmental risks whilst reducing costs.

2) Improve the quality, quantity and reliability of water and wastewater services delivered to vulnerable communities through national and regional systems.

Priority interventions 2017: The sector will continue to boost the reach and quality of public water networks and sources, based on a WASH vulnerability analysis. They will construct, extend and rehabilitate distribution networks in hosting communities and support the safe and effective operation of public sources such as springs, wells, treatment facilities and reservoirs. Work will continue to enhance water storage capacity by building and repairing communal storage tanks.

Similarly, the sector will continue to boost the reach and operating effectiveness of wastewater treatment and wastewater collection. Partners will construct, extend and rehabilitate wastewater networks and treatment facilities and support their operation and maintenance to reduce the burden of untreated wastewater in the environment. They will clean and maintain rivers and storm water channels to protect the most vulnerable from flood-related damage and disease.

To minimize the stress on water resources caused by unsafe and outdated agricultural practices, the sector will upgrade or construct new irrigation systems and off-farm networks to optimize water usage and reduce risks to domestic water supply and quality. The sector will collaborate with the Ministry of Agriculture and the food security sector to work with farmers on responsible management of water resources for irrigation, to reduce the impact of unlicensed wells. The sector will also explore introducing rainwater catchment systems, combining low-cost solutions with potentially high impact on domestic water supply as well as agricultural production.

The program will place extra emphasis on increasing its investment in the capacities of Water Establishments, with a focus on the relationship with end-users where quality is currently weakest. Partners will support a gap analysis of MoEW and Water Establishment projects and equip and train Water Establishments to boost their

planning and project efficiency. They will introduce an initiative to support Water Establishments to implement a communication and trust-building strategy with municipalities as well as end-users, including a feedback system in order to incentivize tariff-payments.

Output 1.3 - By 2020, vulnerable communities adopt more responsible water and wastewater practices

This output aims at enabling and empowering communities to adopt more responsible water and wastewater practices, mitigating health and environmental impacts. Supporting LCRP Strategic Objective 3

Priority interventions 2017: The response will increase the quality of its community-based behaviour change initiative, emphasising child survival and health as well as environmental protection, in close cooperation with the health sector and environment task force. The program will encompass household visits based on WASH vulnerability data, as well as PHCs, schools, SDCs and other community centres. The behaviour-change strategy will be reinforced by delivering hygiene supplies to families at or under the poverty line, with a particularly strong focus on women, adolescent girls and children under five.

The response will also intensify knowledge and responsibility transfer around safe water and hygiene management. It will support and train WASH committees in informal settlements and train community-based hygiene volunteers ensuring gender balance for both. It will also map community-based organizations capable of supporting WASH-related behaviour change by integrating it in complementary programs.

Partners will also build the capacity of other sectors providing services at the municipal level to improve the quality of health and hygiene promotion reaching families through national systems, ensuring gender balance. The program will invest in a comprehensive hygiene training of municipal-level hygiene promoters from the MoPH and MEHE, complementing the community-based mobilization programs already running in informal settlements and vulnerable locations.

A major program focus will be to strengthen needs identification and planning at the community level, as key ways of transferring responsibility for conservation and more responsible practices. The MRR program (Mapping of Risks and Resources) will continue to help vulnerable municipalities and hosting communities collectively self-identify unmet water and wastewater needs, and develop feasible plans to address them.

Finally, awareness campaigns for water conservation and efforts to improve community responsibility and daily practices must be connected to initiatives supporting the Water Establishments such as water metering, applying volumetric tariffs and strengthening the application of business plans, whilst an enabling environment is provided by the MoEW through advances

in policy making and regulatory actions. This will ensure the sustainability of improved management, delivery and use of water increasing the wellbeing of affected households and the environment.

Assumptions, risks and mitigation measures

The response strategy factors in several assumptions, risks and mitigation measures:

Assumption 1: commitment and accountability across Government to make supply and quality improvements remains strong. Water quality and supply is a cross-sectoral issue; the MoEW depends upon a shared commitment across the GoL to limit practices in both public and private sectors that impact water quality. The response will factor in national advocacy to demonstrate the potential long-term cost of unsafe water and wastewater management to child survival and growth, to learning, to the economy and also to stability. It will also ground this strategy in those under development to meet Lebanon's commitments under the Sustainable Development Goals.

Assumption 2: donors provide sufficient funds to meet LCRP commitments. The proportion of sector funding to needs is at its lowest point since the crisis began. Should under-funding continue, the sector will use its prioritization criteria (equity, alignment, conflict sensitivity, multi-sectoral impact) to ensure that vulnerability is addressed first before long-term sectoral reforms; however, it will continue to advocate for a shared international vision for the water sector as critical to Lebanon's long-term wellbeing.

Assumption 3: the water demand-supply ratio remains stable. Since the number of people inside Lebanon has been relatively stable since 2015, the most likely potential upset of the current demand-supply ratio would come from extreme weather. Should Lebanon experience either a drought affecting supply or a new influx affecting demand, the response would move onto an emergency footing. Therefore, support to national contingency planning will be a key priority in early 2017.

Assumption 4: all priority populations continue to be accessible. Currently the international response can reach almost all parts of the country. To protect against any potentially destabilizing changes making access harder, the response will emphasize knowledge transfer to equip communities with the tools and information they need to manage their resources more safely for themselves.

2.2 Identification of sector needs and targets at the individual, institutional and geographical level

The total population in need across all cohorts in the water sector has been defined as equivalent to the percentage of people that do not have access to safely managed water in Lebanon. This is based on preliminary data from the recently conducted Joint Monitoring Program.^{xxiii}

In general, this may be understating the needs since it doesn't account for those households or areas that do not have water quality issues but might instead have wastewater needs. Nevertheless, it gives the best approximation in lieu of detailed vulnerability mapping, across the country, of the varied layers of needs and is based on internationally recognised standards of assessment. Data will soon be available providing a new baseline of wastewater needs as well as knowledge and behavioural practices.

The sector targets institutions, communities that are unserved or poorly serviced and vulnerable groups, households and individuals. The sector will target 80 percent of the population groups of the displaced Syrians, Palestine Refugees from Syria and Palestine Refugees in Lebanon, whilst targeting 40 percent of the most vulnerable Lebanese. This reflects the sector capacity and anticipated resourcing. The inter-agency vulnerable localities map has been a key tool for the sector to identify cadastres which have the highest concentration of Syrian refugees, deprived Lebanese and Palestinian refugees. 251 cadastres are currently targeted, pending an update of the map as new poverty

data becomes available.¹³ A planned WASH vulnerability framework will further refine this analysis to define priority areas for water and wastewater services.

The MoEW will be targeted for institutional support in its responsibilities for policy making, national planning and water resource management, whilst the four Water Establishments and the Litani River Authority are the primary targets for improving service provision.

Prioritisation by sector partners will be according to the following criteria:

Equity: Prioritize vulnerable groups, households and individuals (i.e. female/child headed households, elderly or disabled persons and minors) who face particular risks or require specific assistance, and on geographical areas with the highest concentration of affected people and with no/poor access to sufficient quantity, quality and continuity of services.

Alignment: Prioritize implementation of pre-planned specific projects identified as essential within the GoL's strategies and master plans, which benefit the most vulnerable communities and would make the greatest contribution to the SDGs.

Conflict sensitivity: Prioritize areas most at risk of resource-based conflict, where community relationships are at their most fragile.

Multi-sectoral impact: Prioritize addressing multi-sectoral risks to health, environment, education and stability, with a focus on environmental degradation, water-borne disease incidence rates and educational retention.

(13) A Rapid Poverty Assessment is currently underway, implemented by MoSA, UNDP, UNICEF and WFP. Results will become available by year end, upon which the mapping of vulnerable cadastres will be updated.

Total sector needs and targets 2017

Population Cohort	Total Population in Need	Targeted Population	No. of Female	No. of Male	No. of Children (0-17)	No. of Adolescent (10-17)	No. of Youth (18-24)
Lebanese	2,582,427	1,032,971	513,386	519,197	321,770	168,787	
Displaced Syrians	960,000	768,000	399,360	368,640	411,648	146,688	79,104
Palestine Refugees from Syria	20,161	16,129	8,145	7,984	5,910	2,590	
Palestine Refugees in Lebanon	177,910	142,328	71,876	70,453	54,256	26,188	
GRAND TOTAL	3,740,499	1,959,428	992,767	966,273	793,584	344,254	79,104

Type of Institutions	Total	Targeted
Central Ministries		1
Water Establishments & Litani River Authority		5
Union of Municipalities	46	TBD
Municipalities	1,005	400
Palestinian Camps	12	12
Palestinian Gatherings	42	42
Schools	1,279	400
Informal Settlements	4,312	3,450

Mainstreaming of conflict sensitivity, gender, youth, people with specific needs (PwSN) and environment

Conflict Sensitivity

The water sector aims at ensuring equitable access for all vulnerable communities, whether poor Lebanese, Palestine Refugees or displaced Syrians. Balanced access to services not only mitigates the risk of resource-based conflict but also promotes a climate in which people feel their needs are met fairly and proportionately. Many sector activities contribute to building community resilience, by creating productive fora for discussion and problem-solving. Conflict sensitivity is one of the leading prioritization criteria for the sector, and social tension indicators will be incorporated into the planned WASH vulnerability framework through cooperation with the social stability sector.

Gender

Interventions of local and international partners consider the different needs of women, girls, boys and men. Where there are no family latrines and washing facilities there are gender-segregated toilets. The 2017 Water sector response includes particular elements to involve women in measuring and monitoring water quality, and in planning solutions alongside Lebanese institutions. It will also increase focus on the dignity and protection needs of women and girls, including through a special program connecting hygiene promotion, including menstrual hygiene management and capacity-building to the risks of gender-based violence where women lack access to segregated, safe toilets.

Youth

Adolescents and youth will be: targeted with hygiene promotion sessions; trained to become trainers on hygiene promotion and water conservation; provided with increased access to safe water and sanitation services; and involved in youth-led initiatives in communities and informal settlements on water, sanitation and hygiene subjects. Adolescent and young girls will benefit from personal and female hygiene sessions and items. They will also be part of committees ensuring the sustainability of the installed hardware. The launch of a national school-level hygiene promotion program will involve youth at every level.

People with Specific Needs (PwSN)

Partners will continue to provide humanitarian assistance for evicted families ensuring they have the minimum water, sanitation and hygiene support in the immediate days following. Water and sanitation services shall be implemented in a manner that meets the requirements of persons with specific needs, including those with disabilities and older persons as well as for women and

children through ensuring safe accessibility to toilets and bathing and washing facilities. In 2017, a specific program to address special needs will roll out based on a mapping completed in 2016, based on consultations with PwSN. The Refugee Assistance Information System (RAIS) database reflects these needs, and is updated using the ongoing UNHCR household assessment of displaced Syrians. Sector partners at the field level will continue to support Lebanese, Palestinian and Syrian communities by alerting protection colleagues of suspected protection concerns through established referral mechanisms.

Environment

Protecting the environment is central to the water sector response, from safeguarding natural water sources to preventing environmental contamination through unsafe supply and use patterns. The sector will continue to build the evidence base for advocacy, presenting the avoidable cost of environmental degradation to Lebanon. Practically, the response will support capacity building, training and awareness campaigns to conserve water and dispose of wastewater safely. Innovations for non-permanent yet sustainable wastewater treatment and disposal at informal settlements will be evaluated and rolled out. The long-standing dire operating standard of wastewater treatment plants will be reviewed and a comprehensive strategy to bring them to working order presented in order to raise sufficient funds. The sector will cooperate closely with the Environment Task Force led by the MoE to maximize the benefits of water and wastewater interventions.

Inter-sector linkages

The water sector has longstanding and close cooperation with the sectors of Health, Education, Social Stability and Shelter. In this next phase, it will also step up engagement with the protection sector, as part of a commitment to deliver equity for individuals with special needs, and for women at risk for GBV without segregated toilets. 2017 will also launch a more structured national cooperation with the Health sector, through an integrated child survival action plan drawing attention, resources and cross-government cooperation to a growing WASH, nutrition and healthcare-related child health crisis.

Health: The Health sector remains the primary partner of the water sector vis-à-vis mitigating water, sanitation and hygiene-related health risks. In 2017, the MoPH and the MoEW will launch a four-year combined National Action Plan for Child Survival to direct energy and resources towards health impact strategies for the 0-5 age group. The two sectors cooperate closely on hygiene promotion (where the water sector has the implementation lead), disease/environmental surveillance and have collaborated to draft an Acute Watery Diarrhea/Cholera Response Plan. Combining environmental sanitation and disease surveillance data has helped to identify locations and population groups

at particular risk of water, sanitation and hygiene related diseases. Referral mechanisms are well established between the health and water sector in the Bekaa and are developing in other field areas and will be strengthened with improvements to the monitoring system of the Epidemiological Surveillance Unit in MoPH. Improved water quality testing and monitoring planned through the water sector response will complement these efforts to reduce WASH related health risks. The sectors will also continue to work together on vector control, in cooperation with the MoE.

Education: The Education sector manages school-related water and sanitation infrastructure projects, while water and wastewater services to and from the school is the responsibility of the water sector. Rehabilitation of schools in underserved regions, where Lebanese communities host considerable numbers of displaced Syrians, will be achieved through MEHE's Effective School Profile (ESP) framework where minimum water, sanitation and hygiene standards are ensured. Construction of new schools will also be undertaken based on needs-assessments and in coordination with the water sector. In 2017, the two sectors will strengthen their cooperation through a national hygiene promotion program for schools – including a component that educates youth on protecting the environment, and helps young people grasp the link between unsafe water, poor hygiene practices, environmental costs and water-related disease.

Basic Assistance: The Water sector cooperates closely with the basic assistance sector on identifying areas of greatest humanitarian and poverty-related vulnerability and the delivery of humanitarian supplies. The water sector benefits from economic profiling through household visits supported through the basic assistance sector as well as by sharing its own data on vulnerability (and on use of services). Multipurpose cash assistance by the basic assistance sector incorporates components of hygiene items and drinking water in the total sum provided. A mapping exercise is being undertaken to identify and minimise duplication of multipurpose cash contributions for drinking water where water services are provided, particularly through trucking operations so that resources are optimised. Responsibilities for winter assistance have been divided so that the basic assistance sector provides fuel for heating, stoves and again cash assistance whereas the water sector undertakes flood risk mitigation and site drainage activities, whilst also providing drainage kits to help beneficiaries manage their own sites.

Shelter: Collaboration between the Shelter and Water sectors is particularly close. Data collected through the shelter sector continues to serve as a proxy for their water, sanitation and hygiene vulnerability. This is likely to shift once the WASH vulnerability framework is in place, which will require collaboration with the shelter sector for its development. Both sectors cooperate on flood risk mitigation and site drainage measures in low-

lying and flood-prone settlement areas, while elevating toilets, with the Water sector taking special responsibility for waterproofing wastewater storage and elevating toilets. The Shelter sector will refer any water and wastewater needs identified through its neighbourhood profiling exercise. Whilst increased collaboration is required to ensure better targeting, prioritisation and implementation of mitigation measures to ensure water, sanitation and hygiene related health and environmental risks are reduced for non-residential buildings inhabited by vulnerable families. As with the Education sector, the responsibility for renovating water and sanitation facilities inside the buildings rests with shelter, while services to and from the building are ensured by the water sector. 2016 saw an improvement in the integration of hygiene promotion with hardware activities – but more focus will be placed on ensuring joint interventions during the response cycle.

Social Stability: Safe water and adequate sanitation are a profoundly component of social stability. Pressures on these resources have measurably increased social tensions in specific locations, in some cases leading to eviction of displaced Syrians due to allegations of water tapping or environmental degradation. The Water sector undertakes projects that have a social stability outcome while the Social Stability sector undertakes activities and projects that are in some cases water (including irrigation and drainage) and wastewater in nature. Strong collaboration and data sharing between both sectors has helped to direct WASH programming towards areas of conflict risk. This collaboration will continue to be essential to mitigate risks of social tension, integrate conflict sensitivity into programming, reduce duplication of work and keep a balanced focus on socio-economic vulnerability. Strong collaboration will be needed to ensure improved management of solid waste particularly in informal settlements where Water sector partners provide support to households and communities from a sanitation perspective.

Livelihoods: The Water sector will continue to implement infrastructure projects benefiting the labour market through the creation of skilled and unskilled labour. Collaboration with the livelihoods sector will gauge possibilities of tracking these benefits.

Energy: Power cuts reduce treatment of wastewater, increasing risks to environment and health. Power cuts also reduce water supply pumping, resulting in people receiving public water supply irregularly (every other day) and in turn resulting in people resorting to illegal and unsafe water sources as a coping mechanism. Collaboration with the Energy sector is necessary to improve the reliability and continuity of public water supply to all people that need it through ensuring pumping stations are connected to the grid or to renewable energy sources. Enhancements in supplying energy will reduce costs and ensure that wastewater collection and treatment is also improved.

Food Security: Coordination with the Food Security sector is linked to water management and conservation, particularly with respect to irrigation of farmland. Improving irrigation infrastructure and practices could play a huge role in easing the strain on water resources – particularly during droughts. Primary canals are under the responsibility of the water sector while secondary or on-farm irrigation canals fall under the responsibility of the Ministry of Agriculture as lead of the food security sector. As water quality testing improves, the water sector will share information on particularly Water-stressed areas for a stronger collaborative effort to find environmentally-friendly solutions.

Protection: Cooperation with the Protection sector will be stepped up in 2017 as the water sector rolls out a program in informal settlements designed around people with specific needs to ensure services are adapted to their needs. The two sectors will share information on community-level needs and local capacities to meet those needs (including community-based organizations already working on protection and human rights issues). The Water sector is also increasing its focus on the intersection between sanitation and gender-based violence, as part of a joint effort to minimize the exposure of women and girls to sexual violence in a context of open defecation and rudimentary shared WASH facilities.

Endnotes

- i. Lebanon, Ministry of Environment, European Union, UNDP (September 2014), Lebanon Environmental Assessment of the Syrian Conflict and Priority Interventions.
- ii. Resolution No.2, Date 09/03/2012, Lebanon, Ministry of Energy and Water (27 December 2010), National Water Sector Strategy: A Right for Every Citizen, a Resource for the Whole Country.
- iii. Inter-Agency Mapping Platform 30, (27 September 2016)
- iv. Ibid. and IAMP15 (June 2015)
- v. Ibid.
- vi. UNHCR, UNICEF, WFP (2016), Vulnerability Assessment of Syrian Refugees 2016, Lebanon
- vii. UNICEF, WHO (2016), Joint Monitoring Program
- viii. Lebanon, Ministry of Energy and Water (27 December 2010), National Water Sector Strategy: A Right for Every Citizen, a Resource for the Whole Country.
- ix. Ibid.
- x. Ibid.
- xi. Lebanon, Ministry of Energy and Water, UNDP (2014), Assessment of Groundwater Resources of Lebanon.
- xii. MoEW, UNDP (2014), Assessment of Groundwater Resources of Lebanon Ibid.
- xiii. OCHA, REACH, UNICEF (2015), Defining Community Vulnerabilities in Lebanon: Assessment Report (September 2014 – February 2015).
- xiv. UNICEF (2016), Situation Analysis of Women and Children, Lebanon
- xv. Ibid.
- xvi. MoPH (October, 2016). Available at <http://www.moph.gov.lb/Prevention/>
- xvii. MoPH (October, 2016). Available at <http://www.moph.gov.lb/Prevention/> Ibid.
- xviii. UNHCR, UNICEF, WFP (2016), Vulnerability Assessment of Syrian Refugees 2016, Lebanon
- xix. OCHA, REACH, UNICEF (2015), Defining Community Vulnerabilities in Lebanon: Assessment Report (September 2014 – February 2015).
- xx. UNRWA (2015), Profiling the Vulnerability of Palestine Refugees from Syria Living in Lebanon.
- xxi. UNICEF, WHO (2016), Joint Monitoring Program
- xxii. World Bank (June 2004), Cost of Environmental Degradation: The Case of Lebanon and Tunisia, Environmental Economics Series Paper No. 97.
- xxiii. UNICEF, WHO (2016), Joint Monitoring Program

Sector Logframe

Outcome 1: By 2020, 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.

Indicator 1	Description						Means of Verification						Unit	Frequency
	Percentage increase in households accessing sustainable and safe water						MICS 2018 ,2016 and 2020 JMP 2018 ,2016 and 2020						Percentage	Every two years
 Lebanese	 Displaced Syrians		 Palestine Refugees from Syria (PRS)			 Palestine Refugees in Lebanon (PRL)								
Baseline:	Target 2018	Target 2020	Baseline:	Target 2018	Target 2020	Baseline:	Target 2018	Target 2020	Baseline:	Target 2018	Target 2020			
36%	41%	46%	36%	41%	46%	36%	41%	46%	36%	41%	46%			

Indicator 2	Description						Means of Verification						Unit	Frequency
	Percentage increase in boys, girls, women and men with appropriate hygiene knowledge and practices						KAP survey 2016/2017, 2018 and 2020						Percentage	Every two years
 Lebanese	 Displaced Syrians		 Palestine Refugees from Syria (PRS)			 Palestine Refugees in Lebanon (PRL)								
Baseline:	Target 2018	Target 2020	Baseline:	Target 2018	Target 2020	Baseline:	Target 2018	Target 2020	Baseline:	Target 2018	Target 2020			
0%	(7%) Depending on KAP baseline assessment	(15%) Depending on KAP baseline assessment	0%	(10%) Depending on KAP baseline assessment	(20%) Depending on KAP baseline assessment	0%	(7%) Depending on KAP baseline assessment	(15%) Depending on KAP baseline assessment	0%	(7%) Depending on KAP baseline assessment	(15%) Depending on KAP baseline assessment			

Indicator 3	Description						Means of Verification						Unit	Frequency	
	Percentage increase in households with safely managed wastewater						From collection to environmentally safe disposal						JMP focused on sanitation, early 2017	Percentage	Every two years
 Lebanese	 Displaced Syrians		 Palestine Refugees from Syria (PRS)			 Palestine Refugees in Lebanon (PRL)									
Baseline:	Target 2018	Target 2020	Baseline:	Target 2018	Target 2020	Baseline:	Target 2018	Target 2020	Baseline:	Target 2018	Target 2020				
0%	(5%) Depending on sanitation baseline assessment (JMP)	(10%) Depending on sanitation baseline assessment (JMP)	0%	(5%) Depending on sanitation baseline assessment (JMP)	(10%) Depending on sanitation baseline assessment (JMP)	0%	(5%) Depending on sanitation baseline assessment (JMP)	(10%) Depending on sanitation baseline assessment (JMP)	0%	(5%) Depending on sanitation baseline assessment (JMP)	(10%) Depending on sanitation baseline assessment (JMP)				