



Water Governance in Lebanon

OVERCOMING THE CHALLENGES TO PRIVATE SECTOR PARTICIPATION

NATIONAL REPORT 2017



CONTENTS

4	FOREWORD
---	----------

6	ACRONYMS
---	----------

8	1. EXECUTIVE SUMMARY - DIAGNOSTIC ANALYSIS & RECOMMENDATIONS
---	--

8	1.1. DIAGNOSTIC ANALYSIS
---	--------------------------

9	1.2. KEY RECOMMENDATIONS
---	--------------------------

9	1.2.1. Improving the budget processes
---	---------------------------------------

10	1.2.2. Developing the regulatory framework
----	--

11	1.2.3. Enhancing the potential of the banking sector
----	--

11	1.2.4. Promoting and ensuring Water Integrity, Stakeholders' Engagement and Gender Mainstreaming
----	--

14	2. GOVERNANCE CHALLENGES TO PRIVATE SECTOR PARTICIPATION IN THE LEBANESE WATER SECTOR
----	---

14	2.1. INTRODUCTION
----	-------------------

14	2.2. ENTITIES RELATED TO PRIVATE SECTOR PARTICIPATION IN WATER AND WASTEWATER ACTIVITIES IN LEBANON
----	---

14	2.2.1. The main water institutions in Lebanon and their development
----	---

16	2.2.2. Provision of Services and Water Utilities
----	--

16	2.3. OVERVIEW OF PRIVATE SECTOR PARTICIPATION IN WATER INFRASTRUCTURE
----	---

16	2.3.1. The legal framework for PSP under development
----	--

18	2.3.2. The need for an improved administrative capacity
----	---

19	2.3.3. Overview of investments and the limited private sector participation in water and wastewater services to date
----	--

21	2.3.4. Lessons learnt and opportunities for further private sector participation
----	--

21	2.4. FINANCIAL SUSTAINABILITY OF WATER SERVICES
----	---

21	2.4.1. Public funding and debt sustainability
----	---

22	2.4.2. Tariffs and the financial sustainability of water systems
----	--

24	2.4.3. National financial mechanisms for environment and water projects and the potential of corporate social responsibility
----	--

25	2.4.3.1 Green Financial mechanisms led by the central bank of Lebanon (BDL)
----	---

27	2.4.3.2 The potential of corporate social responsibility initiatives
----	--

28	2.5. CROSS-CUTTING ISSUES
----	---------------------------

28	2.5.1. Water Integrity and Transparency
----	---

30	2.5.2. Engaging with stakeholders
----	-----------------------------------

31	2.5.3. Gender Mainstreaming
----	-----------------------------

34	3. WAYS FORWARD: IMPROVING FINANCIAL SUSTAINABILITY, THE REGULATORY FRAMEWORK, WATER INTEGRITY, STAKEHOLDERS' ENGAGEMENT & GENDER MAINSTREAMING
34	3.1. INTRODUCTION
34	3.2. IMPROVING THE FINANCIAL SUSTAINABILITY OF WATER SERVICES
34	3.2.1. Institutions and their Development
35	3.2.2. Procurement decision based on the new PPP Law
36	3.2.3. Capacity
37	3.3 IMPROVING THE REGULATORY FRAMEWORK FOR WATER
38	3.3.1. Supporting autonomous, efficient and financially sustainable service providers
38	3.4 ENHANCING THE POTENTIAL OF THE BANKING SECTOR
39	3.5 ENHANCING WATER INTEGRITY, STAKEHOLDERS' ENGAGEMENT AND GENDER MAINSTREAMING
39	3.5.1. How to improve water integrity?
40	3.5.2. How to enhance stakeholders' and public engagement in the water sector?
41	3.5.3. How to enhance gender mainstreaming?

42	4. BIBLIOGRAPHY AND REFERENCES
----	--------------------------------

44	5. ANNEXES
----	------------



FOREWORD

Since the year 2000, the Government of Lebanon has embarked upon an important reform process aiming at improving the governance of the water sector. The reform mainly concerns the restructuring of the sector's institutions and the revision of the regulatory framework.

This endeavour has been complemented by initiatives aiming to enhance the integrated management of water resources (IWRM) and the financial sustainability of the sector, including through Private Sector Participation (PSP), mainly driven by the Directorate General of Hydraulic and Electric Resources at the Ministry of Energy and Water (DGHER-MEW) and supported by different partners.

In relation to PSP in particular, during the years 2009-2010, technical work was conducted with the assistance of the Global Water Partnership-Mediterranean (GWP-Med)¹ and in collaboration with the Organisation for Economic Cooperation and Development (OECD) to assess the enabling framework conditions for PSP in Lebanon² and with emphasis on the role of banks. The latter was the recommendation during wide consultation with key public and private actors within and outside the water sector that concluded on the necessity to promote further common understanding of Public Private Partnership (PPP) contracts and their implications, both legal and financial. This line of work was implemented in the framework of MED EUWI activities in Lebanon³ and supported by the GEF – UNEP/MAP MedPartnership programme.

Further to activities carried out since 2010, on 27 March 2017 during a dedicated session within the 6th Edition of the Beirut Water Week, the National Dialogue on *Governance & Financing of Water Projects: Private Sector Participation and Role of Banks in Investments* was launched.

The Dialogue represents a strategic synergy between the European Union-funded Sustainable Water Integrated Management-Horizon 2020 Support Mechanism (SWIM-H2020 SM)⁴ and the Union for the Mediterranean (UfM) labelled and Sida-supported regional project *Governance & Financing for the Mediterranean Water Sector*⁵.

1 GWP-Med (GWP-Med (www.gwpmed.org) is the Mediterranean Regional Water Partnership of the inter-governmental organisation Global Water Partnership (GWP). It was launched as the GWP Mediterranean Technical Committee (MEDTAC) in 1999, and was established in its present status in 2002. Aiming for a water-secure Mediterranean, GWP-Med promotes action, demo application and knowledge exchange on Integrated Water Resources Management (IWRM) and the sustainable use of water resources in the region. GWP-Med facilitates a multi-stakeholder platform that brings together 10 major regional networks of different water disciplines (government, river basins, local authorities, professionals, NGOs, research institutes, irrigators, etc) and over 90 other institutions and organisations from both EU and non-EU countries. The GWP-Med Secretariat extends its human resources in Athens, Beirut, Ohrid, Podgorica, Pristina, Tirana and Tunis.

2 *Framework conditions for Private Sector Participation in Water Infrastructure in Lebanon*: This document was developed as part of a dialogue on private sector participation in water infrastructure in Lebanon led by GWP-Med and OECD, in collaboration with the Lebanese Ministry of Energy and Water – Directorate General of Hydraulic and Electric Resources, in the framework of the MED EUWI Policy Dialogue on Integrated Water Resources Management in Lebanon. It is based on the OECD Checklist for Public Action and on the discussions and results of a series of workshops conducted in 2010, including the national workshop on "Private sector participation in water infrastructure in Lebanon" (8-9 March 2010), the 3rd Beirut Water Week (24-27 October 2010) and the national workshop on "Private Sector Participation in water infrastructure in Lebanon and the role of private banks" (9 December, 2010). Information on the MED EUWI is available below in footnote 3.

3 The Mediterranean Component of the EU Water Initiative (MED EUWI) constitutes an integral part and one of the geographic Components of the overall EUWI aiming at contributing to the implementation of water-related targets within the global sustainable development agenda. Launched in 2003 and led since then by the government of Greece (Hellenic Ministry of Environment, Energy and Climate Change and Ministry of Foreign Affairs), MED EUWI represents a strategic partnership among stakeholders (national, regional and international) in the Mediterranean, aiming to make significant progress in poverty eradication and health and the enhancement of sustainable livelihoods and socio-economic development in the developing countries of the region. Its Secretariat, within GWP-Med, provides technical support and day-by-day running, while institutional anchorage is provided through the Euro-Mediterranean/Union for the Mediterranean political framework.

4 The European Union-funded Sustainable Water Integrated Management-Horizon 2020 Support Mechanism (SWIM-H2020 SM| 2016-2019) aims to contribute to reduced marine pollution and a sustainable use of scarce water resources in the Mediterranean Region with emphasis on the countries of North Africa and the Middle East through providing tailored and targeted technical assistance at national level based on partners' requests through an Expert Facility; organizing regional (or sub-regional) peer-to-peer seminars and webinars; conducting on-site training courses and study tours; capitalizing on the lessons learnt, good practices and success stories; supporting the Horizon 2020 Initiative's governance mechanism and the work of the Union for the Mediterranean's Water Experts Group. More information on the programme is available at www.swim-h2020.eu.

5 Through an interplay of national and regional activities, this four-year programme (2013-2017) aims to address and provide plausible solutions to the governance challenges for the sustainable financing of the water sector, including through Private Sector Participation (PSP), in an 'integrated' approach, engaging a wide range of stakeholders. Designed and implemented jointly by the Global Water Partnership – Mediterranean (GWP-Med) and the Organisation for Economic Co-operation and Development (OECD), the programme has strategic partnerships with the FEMIP Trust Fund (FTF) of the European Investment Bank (EIB), the GEF – UNEP/MAP MedPartnership programme and the Mediterranean Component of the EU Water Initiative (MED EUWI). More information on the programme is available at www.gwpmed.org/governanceandfinancing

Capitalising on the previous work, the Dialogue aims to explore how the private sector, and particularly banks, can engage more actively in water investments, benefitting from the existing framework for investing in energy and environmental projects and involves an interplay of technical work and Policy Dialogue, including also the identification of bankable water projects.

The present National Report was prepared with a focus on the existing governance constraints to the mobilisation of funding, also through Private Sector Participation, and on potential interventions for tackling the existing challenges. The aim is to serve as a reference document for the Dialogue, informing on the current status of PSP in Lebanon, including the role of the banking sector in supporting water projects, and providing suggestions and recommendations on plausible ways forward. The document also provides snapshot information about training and capacity building needs of the relevant institutions and utilities that are key for the successful preparation and implementation of PPP water projects.

ACRONYMS

BDL	Banque du Liban
BOT	Build-Operate-Transfer
CAPEX	Capital expenditure requirements
CDR	Council for Development and Reconstruction
CFD	Central Fund for the Displaced
COFACE	Compagnie Française d'Assurance pour le Commerce Extérieur
CoS	Council of the South
CSR	Corporate Social Responsibility
DGHER	Directorate General of Hydraulic and Electric Resources
ECD	Environmental Compliance Decree (ECD)
EBRD	European Bank for Reconstruction and Development
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EU	European Union
FDIs	Foreign Direct Investments
GEF UNEP/MAP MedPartnership	GEF UNEP/MAP Strategic Partnership for the Mediterranean Sea Large Marine Ecosystem
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
GRI	Global Reporting Initiative
GWP-Med	Global Water Partnership – Mediterranean
HCP	High Council for Privatization and PPP
ICT	Information and Communication Technology
IFC	International Finance Corporation
IFI	International Financial Institutions
IGOs	Inter-Governmental Organisations
ISO	International Organisation for Standardisation
LCEC	Lebanese Center for Energy Conservation
LEA	Lebanese Environmental Action for Water, Air and the Environment
LEEREFF	Lebanon Energy Efficiency and Renewable Energy Facility Fund
LEPAP	Lebanon Environmental Pollution Abatement Project
LRA	Litani River Authority
LWPP	Lebanon Water Policy Program
MED 5P	Public-Private Partnership Project Preparation in the Southern and Eastern Mediterranean
MED EUWI	Mediterranean Component of the EU Water Initiative
MEW	Ministry of Energy and Water
MIGA	Multilateral Investment Guarantee Agency
MoE	Ministry of Environment
MoF	Ministry of Finance
MPs	Members of the Parliament
NEEREA	National Energy Efficiency and Renewable Energy Action
NGOs	Non-Governmental Organisations

NWSS	National Water Sector Strategy
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
OHSAS	Occupational Health Safety Assessment Series
O&M	Operation and Management
OPEX	Operational expenditure requirements
PPP	Public Private Partnership
PSP	Private Sector Participation
SEA	Strategic Environmental Assessment
SFP	Strategic Financial Plan
Sida	Swedish International Development Cooperation Agency
SIWI	Stockholm International Water Institute
SWMENA	Status of Women in MENA Region
SWIM-H2020 SM	Sustainable Water Integrated Management-Horizon 2020 Support Mechanism
UfM	Union for the Mediterranean
UNCAC	UN Convention Against Corruption
UNDP	United Nations Development Programme
UNGC	UN Global Compact (UNGC)
USAID	United States Agency for International Development
US \$	United States Dollar
VfM	Value for Money
WB	World Bank
WSEs	Water and Sanitation Establishments
WSE BML	the Water and Sanitation Establishment of Beirut-Mount Lebanon
WSE NL	Water and Sanitation Establishment of North-Lebanon
WSE SL	Water and Sanitation Establishment of South Lebanon
WUAs	Water Users Associations

1.1. DIAGNOSTIC ANALYSIS

Although the evaluation of future water needs varies according to different sources, there is a general agreement on the fact that Lebanon will face a water deficit situation in the near future. Based on estimations made during the preparation of the National Water Sector Strategy (2010), the deficit would reach 610 Mm³ in 2035. These estimations were made before the onset of the conflict in Syria, resulting in an important influx of refugees (1.4 million officially registered) in Lebanon associated with a rapid rise in demand and additional pressure on the resources.

At present, renewable water resources per capita are slightly below the scarcity threshold, with expected decrease in the coming years. Groundwater aquifers are over-exploited, while surface water storage infrastructure is limited to the two dams of Qaraoun and Chabrouh. Regarding drinking water supply, the progress accomplished by connecting large parts of the population (79% on average) contrasts with high levels of service discontinuity, while more than 50% of the transmission and distribution networks are past their useful life-span. The percentage of non-revenue water, due to both physical and commercial losses, is high and amounts to approximately 48%. Irrigation is the largest water consumer with low efficiencies, as open channels still constitute the majority of the networks. Regarding sanitation, the sewerage system coverage is 60%, while wastewater treatment is currently almost non-existent (8%).

In order to tackle the sector's shortcomings, the Government renewed until 2018 its 10-Year Sector Strategy Plan, initially developed for the 2000-2009 period, and prepared a long-term National Water Sector Strategy (NWSS) that defines a strategic roadmap, including infrastructure and sector management priorities.

Investment needs identified in the NWSS (2010) were estimated at US \$ 7.7 billion until 2020, with commitments covering only a small portion of this amount. The financing gap in the implementation of the Strategy has revived the interest of the Government in relation to the participation of the private sector, which is considered as one of the main enablers for the sector's improvement both in terms of know-how and fresh capital provision, should this be supported by a holistic sector reform approach.

The Government is well aware that Lebanon still lags behind a number of countries in the MENA region (which have already an experience in PSP) due to the fact that the enabling conditions for successful Public Private Partnerships (PPPs) are not in place.

A study developed in 2010 as part of a dialogue on Private Sector Participation (PSP) in water infrastructure in Lebanon led by the Global Water Partnership-Mediterranean (GWP-Med) and the Organisation for Economic Cooperation and Development (OECD) in collaboration with the Ministry of Energy and Water (MEW), highlighted several shortcomings characterising the enabling framework for such interventions. These extend to the institutional, organisational, financial, administrative, legal and regulatory aspects. Although most of the challenges have been addressed in the NWSS, prepared in the same year, and a set of relevant objectives/initiatives to overcome these challenges were identified in the said Strategy, developments have been extremely slow; also due to the new priorities and emergency status resulting from the influx of refugees. As a consequence, the legal framework governing water PPP activities is still not ready, administrative capacities and resources to deal with PSP remain limited, cost recovery is not achieved, and the planned tariff strategies have not been yet introduced.

In this respect, and with consideration of the system's inefficiency and low tariff collection, the Government considers Management Contracts as a starting point to prepare the water sector for more advanced forms of PSP at a later stage.

Until now, PSP in the water sector in Lebanon has been limited to service contracts for the conduct of specific tasks or the operation and maintenance of pumping stations and small wastewater treatment plants. The contracts are generally awarded to small local private companies and aim at tackling the lack of human resources and capacities within the Public Water and Sanitation Establishments (WSEs). A more elaborated service contract of 3-year duration was awarded in 2007 by the Water and Sanitation Establishment of South Lebanon (WSE SL) for the operation of its financial and accounting systems, while the only experience of a service and management contract for drinking water services was carried out in the urban area of Tripoli (400 000 inhabitants - 10% of the Lebanese population).

In addition to the aforementioned challenges, the still incomplete implementation of Reform Law 221 (adopted in 2000) aimed at consolidating responsibilities and clarifying the roles of the various relevant entities, creates institutional uncertainty and weakens the accountability line between the policy-maker (MEW) and the service providers (WSEs):

- The transfer of functions to the four Regional Water and Sanitation Establishments (WSEs) responsible for service provision has been subject to several delays;
- The WSEs are not yet empowered to act with full administrative and financial autonomy;
- The legal text to organize the work of the Ministry of Energy and Water (MEW) has not been developed yet. MEW's efforts are still dedicated to capital projects and Operation & Management, while based on Law 221 it has a policy-making and regulatory role;
- WSEs suffer in general from a shortage of funds and technical staff.

The conditions described above result in an overall poor governance status of the sector and create a lack of trust of the Lebanese people in their institutions with concerns about the continuous access to water as a public commodity in case private companies are brought in.

Such perceptions are potentially also the result of a gap in the communication between the authorities and the citizens, who are usually not part of the decision-making process, but rather recipients of decisions. Challenges and needs -in particular- of women and girls (and other larger groups such as refugees) as regards water, are not adequately taken into account as these groups have little influence in the formal decision-making. It is well known that the lack of a broad perspective risks leading to inadequate solutions.

Moreover, studies on affordability and willingness to pay are not carried out in a systematic manner as part of investments, while the conducted studies do not distinguish between affordability constraints of e.g. female and male headed households, or consider differences in willingness to pay between women and men. Neither is strategic communication used to decrease pollution, reduce water theft and raise awareness on the linkage between the community's health and safe potable water. Better information and data management could provide valuable input for strategic communication and outreach to citizens and companies, thus contributing to improved cost recovery.

In this context, and further to activities carried out since 2010, on 27 March 2017 during a dedicated session within the 6th Edition of the Beirut Water Week, the National Dialogue on Governance & Financing of Water Projects: Private Sector Participation and Role of Banks in Investments was launched.

The Dialogue represents a strategic synergy between the European Union-funded *Sustainable Water Integrated Management-Horizon 2020 Support Mechanism (SWIM-H2020 SM)* and the Union for the Mediterranean (UfM) labelled and Sida-supported regional project *Governance & Financing for the Mediterranean Water Sector*.

Capitalising on the previous work, the Dialogue aims to explore how the private sector, and particularly banks, can engage more actively in water investments, benefitting from the existing framework for investing in energy and environmental projects and involves an interplay of technical work and Policy Dialogue, including also the identification of bankable water projects.

1.2. KEY RECOMMENDATIONS

As highlighted above, challenges to the development of PSP in the Lebanese water sector are important despite the efforts made by the Government to improve the related enabling environment. Suggestions on ways forward, based on international experience and best practices, are provided below and include four main areas of recommendations, related to the budgetary and regulatory processes, to the potential of the banking sector and to stakeholders' related issues.

1.2.1 IMPROVING THE BUDGET PROCESSES

The risk incurred by the commercial financing of water infrastructure in Lebanon is high, also in view of the current performances of the Water and Sanitation Establishments (WSEs) and low tariff collection rates. Therefore, the restructuring and empowerment of WSEs is of high priority to achieve the following:

- Full administrative and financial autonomy;
- Mechanisms for performance management;
- Improved Strategic Planning and Business Planning, Fixed Asset Management, Custom Service, Control and Audit functions, among others;

- Adequate manpower levels and capabilities to ensure an appropriate operation and maintenance of assets and the delivery of water at optimal service levels;
- Operations with a high level of trust from the public.

A broader interest from the private sector regarding opportunities and challenges in the water sector, also as a focus for corporate social responsibility, could be achieved through awareness raising and targeted information.

The preparation of a Strategic Financial Plan (SFP) to prioritise infrastructure and management-related initiatives, identified by the NWSS, could also be beneficial in attracting private sector interest. The SFP would help updating the existing Investment Plan, and identifying affordability constraints from consumer budgets or preferences, variable levels of service under different policy scenarios, etc. and therefore rank these initiatives based on their impact and investment needs.

The establishment of the PPP Unit through the recently enacted Law 48 regulating PPPs (7 September 2017) is a key step in the development of a PPP framework in Lebanon. However, the following initiatives should be also considered:

- While the PPP Law includes training the public sector staff to enable them to effectively manage PPP projects, attention should be paid to a gender neutral approach, ensuring that training/capacity building is provided for men and women alike;
- While the new Law does not call for a VfM methodology, the decision to procure projects on a PPP basis depends on the results of the prefeasibility study and the extent of the interest of the private sector in financing it and investing in it. In this respect, it is important to consider social parameters and gender indicators, which are unique to the water sector;
- Develop capacity of the water professionals in the entire PPP process by effectively implementing the provision of Law 48 related to this issue;
- Assess CSR opportunities and risks in the water sector, and implement corresponding action plans to promote opportunities and mitigate risks.

1.2.2 DEVELOPING THE REGULATORY FRAMEWORK

The slow progress in the legal reform and institutional restructuring of the sector needs to be urgently tackled in order to address governance challenges and send a strong signal to the private sector about the government's interest to engage in partnerships.

Therefore, the following actions described in the NWSS should be urgently implemented:

- Ratification of the Water Code by the Lebanese Parliament and its successive effective implementation and enactment
- Development of improved organization structures for the WSEs based on roles and responsibilities;
- Improvement of the coordination between MEW and WSEs;
- Ensuring WSEs involvement in project planning and implementation;
- Restructuring MEW's organization in line with the requirements of laws 221 and 247 to reflect more its water governance role, with main focus on policy making, planning and regulatory roles. This includes the drafting of a revised organization law and its implementation. Ensure that the restructuring provides equal opportunities as stipulated by the Convention on Elimination of Discrimination Against women, ratified by Lebanon 1997;
- Development of a tariff systems taking into account its potential impacts on different social clusters (poor, woman, youth) and accompanied by willingness to pay and affordability assessments at local level and/or at national level.

Furthermore, the interface between the legal framework specific to the water sector and the law on the PPP has to be clarified.

It is also important to further strengthen the capacity of WSEs on PSP aspects, including monitoring and social safeguards, and to enhance their credibility through the provision of transparent and publicly accessible reporting on the use of revenues. The recently approved PPP Law (Law 48, 7 September 2017) also contributes to build the capacity of the WSEs so as to effectively study and manage PPP projects.

Furthermore, the government's focus on CSR as an enabler for efficient PSP in the water sector could be strengthened. Evaluating the needs for reinforcing the legal framework in this respect, regarding e.g. transparency, anti-corruption etc. would be a useful decision support tool.

Finally, consultation with communities at all stages of the development and implementation of the regulatory framework is a key to identifying and diagnosing social and technical issues derived from differences in socio-economic needs and interests and should be therefore enhanced.

1.2.3 ENHANCING THE POTENTIAL OF THE BANKING SECTOR

The Policy Dialogue on Governance and Financing in Lebanon carried out in 2016-2017 has focused primarily on the role of banks in promoting water efficiency projects under the framework of non-conventional water resources management (NCWRM).

This was based on the expressed interest of the Ministry of Energy and Water that, besides the large-scale infrastructure projects to be implemented through the involvement of the Private Sector, is also interested in pursuing smaller-scale projects related to non-conventional water resources management with the involvement and support of commercial banks, by using the existing green funding mechanisms (such as the Lebanese Environmental Action from the Central Bank).

Throughout the Policy Dialogue, commercial Banks have also shown a great interest to support such projects, because effective water management is recognized as a key issue for Lebanon. The criteria currently developed in the framework of the Dialogue actually support banks with the selection of bankable water/wastewater projects with emphasis on the use of NCWRM.

However, there are concerns about the slow rate of return on investment for this type of projects (as well as for most water-related projects) that could discourage investors. Moreover, commercial banks in Lebanon can lend money only to private stakeholders.

In the light of the above, and with a view to enhancing their role, the following actions were identified as significant during the Dialogue:

- Find appropriate ways to engage more actively the local authorities/municipalities, since they cannot benefit directly from the green loans provided by private Banks, eventually through the collaboration with a third party (private company, NGO etc.).
- Work in parallel on raising the awareness of potential applicants about the availability of financial mechanisms for water projects in Lebanon and, at the same time, encourage commercial Banks to be more active in this process.
- Complement the above work with capacity building and further support towards potential applicants through the Centre d'Information et de Formation aux Métiers de l'Eau (CIFME) of the Ministry of Energy and Water.
- Train practitioners and the public on water scarcity and available solutions (including innovative approaches on non-conventional water resources).

There is also a great potential for private companies and Banks to become more involved through their Corporate Social Responsibility (CSR) component, also by exploring where the interests of stakeholders coincide with those of their business.

To this respect, the Dialogue recommended the following:

- Strengthen the government's focus on Corporate Social Responsibility (CSR) as an enabler for efficient PSP in the water sector and evaluate the needs for reinforcing the legal framework in this respect, regarding e.g. transparency, anti-corruption, etc.
- Promote awareness raising and targeted information towards the private sector, including Banks, regarding opportunities and challenges in the water sector, also as a focus for CSR.

1.2.4 PROMOTING AND ENSURING WATER INTEGRITY, STAKEHOLDERS' ENGAGEMENT AND GENDER MAINSTREAMING

The analysis of the current situation sheds light on the main drawbacks in terms of integrity and transparency that influence good water governance in Lebanon. A set of initiatives are suggested to assist in overcoming them:

- Endorse an anti-corruption Committee to ensure clear accountability mechanisms and transparent procedures, including public participation and access to information, and investigation on corruption cases.
- Undertake measures to review the wages of public servants in order to prevent them from accepting bribes.
- Minimize the interactions between citizens and public servants, e.g. through online procedures.
- Activate Article 19 of law 4517/1972 to oblige institutions to submit yearly reports documenting their performance.
- The effective implementation of the recently ratified law for public access to information (19 January 2017) would contribute to this endeavour.
- Define clear criteria for independent recruitment procedures for new positions in the public sector.
- Set-up a transparent monitoring system to evaluate employees' performance.
- Create a National Water Council to overlook the management of resources and be linked to the anti-corruption Committee above.
- Set up accountable monitoring entities to help WSEs control illegal connections to the network and the Ministry of Energy and Water control the illegal digging of wells, in collaboration with the Ministry of Interior and Municipalities.
- Adopt a metering system to further monitor water use and to allow the application of volumetric charges.
- Adopt measures to ensure increased water fees' collection rates (outsourcing of collection of fees, providing incentives to collectors, etc.)

Stakeholders' engagement and encouragement of public participation in the decision-making are currently poorly practiced in Lebanon and usually left to the initiative and commitment of the promoters/donors of a project.

In this sense, the approval of the law for public access to information seems a key step forward to:

- Ensure a more active stakeholder involvement in the discussions pertinent to the water sector
- Enhance citizens' trust towards the institutions
- Strengthen the trust between the public and the private sector

If applied properly, this could improve the good management of water and other natural resources including also increased payment rates.

Awareness raising and dialogue with the stakeholders/consumers should also be one of the objectives in the process of exploring PSP in the water sector.

To this purpose it is recommended to prepare a well-designed communication strategy aimed at raising awareness about key issues such as:

- The critical condition of the national water resources and the efforts needed for water conservation, gradual enforcement of consumer metering, use of more efficient plumbing devices etc.;
- The financial sustainability of the sector and the potential of private sector intervention;
- The real cost of water and wastewater services;
- The importance of tackling corruption and illegal activities in the sector (a shared responsibility approach is needed here, since government, the private sector and the public all need to contribute to tackling corruption and to strengthen trust in the legal system).

Awareness raising should be complemented with social analysis to consider attitudes and behavioural patterns related to water management and services with a gender perspective, disaggregating results by sex, and to discuss why different stakeholders (female/male, youth) might have different perceptions and attitudes. Such information would make a communication strategy more effective and would allow targeted messages to the different stakeholders.

Women often take the majority of household decisions (also in relation to payments of services) and are central to household water management and hygiene, consequently they can provide critical feedback as customers to water suppliers and utilities (i.e. the WSEs).

Therefore, it is essential to engage with women as well as men as consumers and to understand differences in affordability and willingness to pay motivation.

An increased involvement of women also at the level of decision making and of higher managerial positions – still largely dominated by men – should also be promoted. This, as shown by many cases worldwide, could potentially decrease water integrity challenges, especially if linked to tightening of control mechanisms and closing corruption-vulnerability in the systems.

The significance of gender equality on the private sector performance (in financial terms) has been made clear in a number of studies. This knowledge has affected both private companies, but also international/multinational finance institutions such as the World Bank (WB) and the European Bank for Reconstruction and Development (EBRD), who now push for investments considering in particular equal opportunities and equal access to services.



2

GOVERNANCE CHALLENGES TO PRIVATE SECTOR PARTICIPATION IN THE LEBANESE WATER SECTOR

2.1. INTRODUCTION

This chapter aims at providing an overview of the main governance challenges facing the water sector in Lebanon towards an effective participation of the private sector.

It builds on the work realised in 2009-2010 in the context of the MED EUWI Policy Dialogue on Water Governance in Lebanon by the Ministry of Energy and Water – Directorate General of Hydraulic and Electric Resources (MEW-DGHER) with the assistance of the Global Water Partnership-Mediterranean (GWP-Med) and in collaboration with the Organisation for Economic Cooperation and Development (OECD).

In particular, it expands and updates the outcomes of the assessment on the “Framework conditions for Private Sector Participation in Water Infrastructure in Lebanon” carried out during the MED EUWI Policy Dialogue mentioned above, taking into account developments after 2010 (at policy, institutional, financial level etc.) and it gives more emphasis on cross-cutting issues that are key for an improved governance of the sector, such as water integrity and transparency and the appropriate consideration of gender mainstreaming processes.

2.2 ENTITIES RELATED TO PRIVATE SECTOR PARTICIPATION IN WATER AND WASTEWATER ACTIVITIES IN LEBANON

2.2.1 THE MAIN WATER INSTITUTIONS IN LEBANON AND THEIR DEVELOPMENT

Before 2000, water service management in Lebanon was fragmented among 21 Water Offices and 209 local committees established throughout the country. In the year 2000, the Lebanese government decided to rationalize the institutional organization of the sector.

Consequently, the management of water services was grouped into 4 Public Water and Sanitation Establishments (WSEs) in accordance with Law 221/2000 and its amendments (Law 241 and Law 377): the North Lebanon WSE, Beirut and Mount Lebanon WSE, Bekaa WSE and South Lebanon WSE.

However, the enforcement of this Law was delayed and related application Decrees were finalized only at the end of 2005. Moreover, the Water and Sanitation Establishments have not yet received the necessary resources (human and financial) for their efficient operation as administratively and financially autonomous entities. Regarding the participation of the private sector, Law 221 was examined by the Parliament at the same time as the framework law on privatization (Law N°228 of 31/5/2005 for the establishment of the Higher Council for Privatization).

To avoid overlapping, Law 221 does not mention PSP. Moreover, the reform initiated by Law 221 does not tackle the fragmentation of responsibilities in planning and executing investments. Therefore, the Council for Development and Reconstruction (CDR) is responsible for the planning and execution of the externally-financed investments, the Ministry of Energy and Water (MEW) is responsible for the investments financed by the domestic budget and the Public Water and Sanitation Establishments (WSE) handle only small investments based on available self-financing.

The fragmentation of roles influences negatively not only the coherence between the policies of the water sector and other sectors (agriculture, energy, environment), but also the consistency of intra-sectoral policies and investment programs, particularly between the national and local levels.

The reform was also ambiguous as regards sanitation services. According to article 2 of Law 377, WSEs are in charge of the management of sanitation services. However, article 6 of the same Law stipulates that the prerogatives of municipalities or unions of municipalities are not reduced, and makes reference to Law N° 118 of June 30 1977 that entrusts municipalities with sanitation infrastructures and their management. This legal ambiguity, which for some time had led to confusion about functions and responsibilities between the Establishments and the municipalities, was resolved in practice: while Municipalities can build and/or own wastewater systems, the WSEs are responsible for their operation and management.

Sanitation services are not subject, so far, to any billing apart from taxes collected by the municipalities for the maintenance of networks. Starting in 2011, the WSEs have adopted a symbolic flat fee which is applied on all water customers in the country and a slightly higher one applied on all subscribers connected to wastewater networks whose water is treated in a wastewater treatment plant.

In general, the failure to complete the institutional reform and its implementation has led to institutional uncertainties in the allocation of responsibilities at central (CDR/MEW) and local (Establishments/Municipalities) levels. The de facto allocation of responsibilities is shown in Table 1.

TABLE 1: DISTRIBUTION OF RESPONSIBILITIES IN THE WATER SECTOR IN LEBANON

	Policy Formulation	CAPEX Planning and Execution			Service Provision (O&M)
		Donor Financed	National Budget	Cash-flow	
Water	MEW	CDR	MEW, CoS, CFD	WSE	WSE, MEW
Wastewater	MEW	CDR	MEW	-	Municipality, Private Operators
Irrigation / Water Resources Management	MEW	CDR	MEW LRA	-	Local Committees Farmers groups

Keys : CDR: Council for Development and Reconstruction, CoS: Council of the South, WSE: Water and Sanitation Establishments, CFD: Central Fund for the Displaced, MEW: Ministry of Energy and Water, LRA: Litani River Authority
Source : World Bank, 2009

Source: MED EUWI, OECD (2010), *Framework conditions for Private Sector Participation in Water Infrastructure in Lebanon*

In contrast, the interest of the Lebanese Government to set up and implement privatization programmes with the aim of promoting the development of infrastructure, the transfer of expertise to public entities and the reduction of the public debt, resulted in the creation in the year 2000 of the Higher Council for Privatization (HCP)⁶ under the chairmanship of the Prime Minister.

Specific missions (see box below) have been assigned to the HCP, including the preparation of draft laws and decrees as well as the provision of the necessary recommendations for implementing privatization programmes. The HCP Board is chaired by the Prime Minister and includes the Ministers of Finance, Economy and Trade, Justice and Labour as permanent members. Moreover, for each project examined, the related Minister joins the Board on an ad-hoc basis (for the water sector the Minister of Energy and Water would be the concerned Service Minister).

BOX 1: THE MISSION OF THE HIGHER COUNCIL FOR PRIVATISATION

The mission of the Higher Council for Privatizations is to:

- Put forward the general privatization policy and the means of its implementation and submission to the Cabinet for approval
- Set up a timetable for the public projects to be privatized and submit it to the Cabinet for adoption,
- Issue the necessary decisions in order to complete the privatization operations and their procedures according to the timetable adopted and supervise their implementation,
- Evaluate the assets and properties of the public projects, according to internationally approved financial and economic basic standards; establish the productive budget of the privatized projects and submit it to the Cabinet for approval,
- Prepare the draft laws and decrees if and when required; and present the necessary recommendations to guarantee the implementation of privatization programmes and operations.

Source: Law n° 228 of Mai 31, 2006

⁶ The HCP was renamed as the High Council for Privatization and PPP, based on Law 48 on the Regulation of PPPs (7 September 2017)

Following the approval of Law 48 (7 September 2017) regulating Public Private Partnerships, the name of the HCP was modified to High Council for Privatisation and PPP to highlight its active role in supporting the effective implementation of this law's provisions throughout the tendering process of PPP projects.

An unofficial translation in English of Law 48 is included in Annex I.

2.2.2 PROVISION OF SERVICES AND WATER UTILITIES

As mentioned above, the reform carried out in the year 2000 also resulted in the creation, in the perspective of delegated services and financial autonomy, of four (4) Public Water and Sanitation Establishments (WSEs) in charge of the management of drinking water, sanitation and irrigation services. However, these do not have yet the needed means for an efficient operation.

Regarding the services provided to the population in Lebanon, the progress accomplished by connecting large parts of the population to drinking water supply (79% on average, with 87% in South Lebanon, 85% in Beirut-Mount Lebanon, 68% in North Lebanon and 62% in the Bekaa)⁷ contrasts with high levels of service discontinuity. The Beirut-Mount Lebanon WSE, which has the highest connection rate, provides water only for three hours per day during the summer time. Only the urban area of Tripoli gets water on a 24-hour basis. The percentage of non-revenue water, due to both physical and commercial losses, is high and amounts to approximately 48%. Regarding sanitation, the sewerage system coverage is 60%, while wastewater treatment is currently almost non-existent (8%). Existing sewage treatment plants are located mainly on the coast.

Out of the seven major plants for primary treatment built on the coast, only two are operational (Ghadir and Saida); the other five do not contain the sewage systems necessary for their operation. Inland, two treatment plants have been built (Baalbek and Yamouneh), while all the stations operate well below their design capacity (Ghadir 40%, Baalbek 50% and Yamouneh 10%). In addition, some sixty small stations have been constructed by municipalities through foreign financial aid but are, in most cases, non-functional due mainly to financial constraints.

2.3 OVERVIEW OF PRIVATE SECTOR PARTICIPATION IN WATER INFRASTRUCTURE

In order to tackle the sector's shortcomings, the Government reviewed its 10-Year Sector Strategy Plan, initially developed for the 2000-2009 period, renewed it (in 2009) to cover the period until 2018 and also prepared a long-term National Strategy for the Water Sector in 2010 (NWSS 2010) that was approved in 2012. The planned projects under the NWSS have been proposed to be implemented until 2020 with few of them continuing until 2035 and are related to irrigation, water supply transmission and distribution, artificial recharge and optimization of surface water resource, drinking water and sanitation as well as to the increase of storage capacity through the construction of hill lakes and dams, some of which will also be used to produce hydroelectric power.

Investment needs identified in the National Water Sector Strategy (2010) were estimated at US \$ 7.7 billion until 2020, while commitments were estimated at approximately US \$1.6 billion. The Government estimates that financial contributions through the State budget and the Official Development Assistance will not suffice to cover the needs. The latter is among the main reasons for the interest in PSP in relation to the building, operation and management of water infrastructure.

However, an analysis of the enabling framework for PSP in the country reveals some of the major constraints for the development of such partnerships, which are highlighted in the following chapters.

2.3.1 THE LEGAL FRAMEWORK FOR PSP UNDER DEVELOPMENT

Prior to the recent enactment of the PPP Law, the lack of a legal framework regulating Public Private Partnership (PPP) contracts in general and in the water sector, coupled with institutional ambiguity has not favoured PSP. Perceived as a political and regulatory risk, it constituted a heavy constraint to PSP development.

Tackling the lack of a legal framework in the area of PPPs, a set of draft laws were prepared or considered for many years prior to the enactment of Law 48 on the Regulation of Public Private Partnerships (7 September 2017, see the unofficial English translation in Annex I), considered as the recent positive development on this front.

⁷ National Water Sector Strategy, 2010, Lebanese Ministry of Energy and Water. The figures that follow are taken from the same source, unless specified.

A first draft law, related to regulating PPP contracts for all sectors, was prepared by the Higher Council for Privatization (HCP) and was approved by the Council of Ministers on 25/06/2007. However, due to political conditions prevailing at that time, the draft law was not duly received by Parliament and remained in limbo.

In 2010, a new draft PPP law based on the 2007 law but introducing some improvements contributed also by the HCP, was proposed to the Parliament by MP Ali Hasan Khalil.

Given the existence of two draft PPP laws at this point, Prime Minister Saad Hariri formed in June 2010 a committee of judges and consultants to review the existing two laws and prepare an improved version based on international best practice.

The final PPP law - which was ratified by the Parliament in September 2017 - was the draft law proposed by MP Ali Hasan Khalil and which was amended in the Finance and Budget as well as in the Administration and Justice parliamentary committees over the previous 3 or 4 years to fit the improved version based on international best practice.

Based on the new law the name of HCP was modified to become the "High Council for Privatisation and PPP" (hereinafter referred to as the Council).

Law 48 describes in detail the various steps towards the preparation and tendering and appraisal process for PPP Projects and aims at enhancing transparency and professionalism. Transparency is ensured through the involvement of all stakeholders and their commitment and coordination: whether at the level of relevant authorities (i.e. the HCP Secretary General, the Minister of Finance and the Minister directly concerned by the project) through the Project Committee, or at the level of the beneficiary public entity, existing regulatory authority and any other concerned ministries through the Working team which supports the Project Committee. The Working Team also includes the retained financial, legal, and technical consultants as well as experts of specific competence to ensure that all relevant financial, legal and technical details related to a PPP project are properly taken into consideration.

PPP projects of municipal nature involve the president of the municipal council or the president of the federation of municipalities.

The new law also details the procedures to guarantee transparency in the process of selection of the Private Partner, freedom of participation of competing bidders and their equal treatment, and wide and sufficient publicity to ensure a multitude of competing bids. It also describes the steps and responsibilities of the various actors during the selection of and negotiation with the best bidder and then throughout the implementation of a project.

The new law enhances professionalism in the process of tendering PPP projects through the creation of the PPP unit, as a melting pot allowing the accumulation of expertise on PPP procurement, ensuring the proper design of contracts which guarantee the public interest and respect the rights of the investors.

Importantly, and based on the new law, the Council's Secretariat General shall provide training to the public sector staff to develop their capabilities and enable them to effectively study and manage PPP projects, especially that the size and complexity characterizing PPP projects require skills substantially different from the skills needed for traditionally procuring projects.

Other laws specific to the water sector are:

- The Water Code, which was first prepared in 2005 (and modified several times since then), has been recently approved (7 October 2017) by the Council of Ministers and the ratification by the Parliament is now pending. The Water Code foresees the possibility of delegating drinking water, sanitation and irrigation services for a maximum period of 25 years. The forms of concession, affermage, management, third party management as well as construction, operation and transfer contracts are listed under the designation of delegation of services.
- A draft law prepared by MEW in 2003 and submitted for approval to the Council of Ministers envisages the regulation of delegation and BOT projects for the construction, operation and transfer of dams and annexed works, including water and sanitation networks as well as drinking water and waste water treatment plants. According to this draft law, the evaluation of projects and the preparation of specifications is the responsibility of MEW that is the signatory of the PPP contracts with the approval of the Council of Ministries. This draft law sets the maximum duration of such contracts to 30 years.

The interface between the legal framework specific to the water sector and the more general draft law on the PPP has to be clarified. In particular, significant uncertainty remains in terms of allocation of responsibilities for the set-up of projects. In addition, deadlines for the promulgation of laws are unpredictable and the process can be considerably prolonged.

Before the enactment of the PPP Law, the evaluation of the projects' feasibility, the preparation of the contracts and the distribution of responsibilities between the various public authorities have been done on a case by case basis.

A Commission was created in June 2010 inside the MEW in order to explore the potential and the possibilities for PSP in the water and energy sectors. Chaired by the Ministry of Energy and Water and having as members the General Director of Hydraulic and Electrical Resources, the General Director of the Lebanese Centre for Energy Conservation, representatives from the banking sector and 2 independent experts on privatization, this Commission was supposed to be in charge of identifying and preparing the necessary procedures for the implementation of a pilot project for the construction and operation of a dam under a BOT contract. However, the works did not move forward because of the political situation prevailing in the country.

2.3.2 THE NEED FOR AN IMPROVED ADMINISTRATIVE CAPACITY

Like other public authorities in Lebanon, the Ministry of Energy and Water and the 4 Water and Sanitation Establishments lack the human capacity and expertise that would allow them to efficiently fulfil the missions related to the monitoring of private sector activities. No special measure has been taken to improve in a sustainable way the capacities and the number of staff in charge of supervising private sector activities, neither at central level - within the Ministry - nor at local level, within the Establishments and municipalities. According to article 54 of the budget law of 2004, the authorization for recruitment of personnel within all public establishments in Lebanon is under the authority of the Public Function Council. Unwieldy procedures of public function recruitment and its control are therefore applicable to the Water and Sanitation Establishments despite the stipulations of Law 221 for the annulment of the Public Function Council's authority and its replacement by more flexible control modalities within the Ministry of Energy and Water. This situation has been only partially solved through the hiring of specific technicians / experts needed by the WSE based on limited duration contracts. However, this does not guarantee that the expertise is mainstreamed into the WSEs capacity in the long term.

Regarding the improvement of staff qualifications, efforts have been limited to a few activities, such as those carried out by the Lebanon Water Policy Program (LWPP) financed by USAID (2002 and 2007) and a GIZ programme (2010) aimed at assisting the WSEs to develop performance indicators, whether their management is public or private.

In the framework of this programme two types of indicators were developed: common indicators for all 4 WSEs and specific indicators for each Establishment.

Among the common ones were "administrative indicators" such as: organizational structure, number of employees /1000 subscribers, % of fees collection, financial balance and deficit etc., and "technical performance indicators" such as: % of non-revenue water, % of population coverage, % of illegal connections etc.

The indicators can enable identifying areas where the capacities of the Establishments could be strengthened, including through reinforced collaboration between the Establishments for learning/exchange of best practices. Data collection should be done on monthly basis and their submission to the Ministry of Energy and Water on a quarterly basis.

Moreover, GIZ project assisted with the set-up of a temporary team inside the Exploitation Directorate within the Ministry of Energy and Water to collaborate with the Water and Sanitation Establishments in order to gather, verify, consolidate and report related data.

This was done in preparation of a Committee for the Performance Evaluation of the WSEs within the Ministry of Energy and Water, as foreseen by Law 221/2000. This Committee, which would be established by a decree approved by the Council of Ministers in a joint proposition by the Ministry of Finance and the Ministry of Energy and Water, has not been yet created, despite the fact that the by-laws establishing it were prepared, as well as internal and functioning regulations.

As a positive note, Law 48 on PPPs assigns to the HCP, among other roles, also the promotion of training for the public sector staff to develop their capabilities and enable them to effectively study and manage PPP projects.

This is in line with international experience showing that in other cases (England, South Africa, Korea, Victoria [Australia]), where PPP Central Units are in place, capacity reinforcement represents an important part of the missions insured by these units. It is essential for the public authorities to have the needed capacities in order to partner on an equal basis with their private sector counterparts.

It is also important to look at the international experience in a broader sense regarding the connection between PSP and corporate social responsibility. When engaging the private sector in a critical sector such as water, it is crucial that the private sector engages with high ethical standards, strengthened by requirements on transparency and reporting, broad stakeholder engagement, and robust assessment of environmental and social impacts. These are all core features of how to work with corporate social responsibility. International experience shows that such initiative needs to be pushed by the government.

The Tripoli experience described in more detail in the chapter below showed that the management contract offered employees and managers the opportunity to learn about private sector participation while being involved in its implementation and monitoring. Short-term contracts entailing low risk for the private sector, such as management contracts, could possibly help build capacity within government and local authorities and provide them with the expertise and know-how to manage more advanced PSP contracts.

There is no indication that any of the projects has considered how equal opportunities and effort to attract more women to the sector, especially for top management and boards, can positively affect rate of return (see also chapter 2.5.3 below).

2.3.3 OVERVIEW OF INVESTMENTS AND THE LIMITED PRIVATE SECTOR PARTICIPATION IN WATER AND WASTEWATER SERVICES TO DATE

Until now, PSP in the water sector in Lebanon has been limited to service contracts for the conduct of specific tasks or the operation and maintenance of pumping stations and small wastewater treatment plants. The contracts are normally awarded to small local private companies and aim at tackling the lack of human resources and capacities within the Public Water and Sanitation Establishments. The contracts' duration is limited to one year, reflecting more the annual programming budget cycle rather than the operating needs of the plants. The awarding process and the supervision of these contracts are advantageously flexible for the administration. However, the use of these contracts is circumstantial and is not included in a comprehensive outsourcing approach seeking to make a better/more targeted use of them. It would be beneficial to undertake a review of these contracts so as to explore their advantages and weaknesses, as well as the way to improve them.

A more elaborated service contract of 3-year duration was awarded in 2007 by the Water and Sanitation Establishment of South Lebanon (WSE SL) for the operation of its Financial and Accounting System (FAS). The Establishment used a private company for this task because of the lack of in-house expertise and the difficulty in recruiting new qualified employees. The preparation of the contract was supported with technical assistance by the Lebanon Water Policy Program (LWPP) financed by USAID. The WSE SL was in charge of the contract's monitoring and has tried to make use of this experience in order to develop the required in-house expertise to operate the system. After the end of the contract with the Private Sector the WSE SL undertook the task related to operate the FAS. Currently it has a limited contract with a Private Company for technical and IT support.

In the mid-1990s, and on the occasion of the water conveyor project from the Awali River to Beirut, a more advanced model of PSP was put forward. The Council for Development and Reconstruction (CDR), based on a Council of Ministers' decision, launched a call for tenders for carrying out this water transfer work through a BOT contract with a 28-year duration (3 years for the construction and 25 years for the exploitation). In order to attract the needed private capital, the World Bank envisaged the provision of a Partial Risk Guarantee. The tendering procedure, in which foreign private companies participated jointly with Lebanese companies, reached the phase of prequalification.

However, two different interpretations of the legal framework for BOT created uncertainty about the legal anchoring of the project. On the one hand, the Court of Account considered that the BOT contract was subject to Article 89 of the Lebanese Constitution requiring that concessions are granted under a specific law⁸. On the other

8 Article n. 89 of the Lebanese Constitution: No contract or concession for the exploitation of the natural resources of the country, or a public utility service, or a monopoly may be granted except by virtue of a law and for a limited period.

hand, the Legislation and Consulting Department of the Ministry of Justice considered Law 89 not applicable to this BOT contract and that a statement from the Government would be enough to launch it, in accordance with the usual contract awarding procedure. In the end, Beirut's Water Authority (currently the Water and Sanitation Establishment of Beirut-Mount Lebanon (WSE BML)) decided to cancel the BOT process. Instead, the Government opted for a traditional setting for the project, with external financing from the World Bank with 200 million US \$, national contribution by the WSE BML with 140 million US \$ and by the Government with 30 million US \$ (respectively 54%, 38% and 8% of the overall budget). Works have already started and are planned to be completed in about two years.

With the impetus derived from the water sector reform process, launched in 2000, PSP became once again a part of the political agenda. The Higher Council for Privatization recruited the group Société Générale France/Société Générale of Banks Lebanon to examine the development of approaches for PSP in the water and sanitation sector. The option for transfer of assets was soon abandoned in favour of lease/affermage or concession contracts (in particular for the Establishment of Beirut - Mount Lebanon) and management contracts (later convertible into lease/affermage contracts or into concessions in the case of other Establishments).

In the absence, until recently, of a legal framework allowing for advanced forms of concessions and lease/affermage for PSP, the Lebanese water sector has had very little experience in this area. To date, the only related example has been limited to a service and management contract for drinking water services in the urban area of Tripoli (400 000 inhabitants - 10% of the Lebanese population). This contract was concluded in the framework of a project financed by the French Development Agency and governed by law 401 (dated 05/06/2002). The project included two components: the construction of infrastructure with a budget of 11 million € (enlargement of the water treatment plant of Bahsah, extension of the secondary and tertiary network of Tripoli) and institutional support targeting performance improvement of the Tripoli Water Office (replaced later by the Regional Establishment of Water and Sanitation of North Lebanon). The management contract, at € 4.6 million over 4 years, was awarded to the company Ondeo Liban. It started in 2003 and was completed in 2007, without renewal.

The objectives of the management contract were to improve the technical, commercial and financial performance, to establish information and management systems and improve communication. The evaluation of this experience based on the pre-defined performance indicators is mixed and has been the subject of a large debate. Among the targets achieved through the implementation of this contract, are the continuous supply of good quality drinking water, the recruitment and training of staff and the installation and running of management software (customer services, computer-assisted maintenance management, geographic information system). Other indicators, however, recorded progress without reaching the anticipated targets. For instance, the technical performance of the water system went from 35% to 55% against a target of 75%. But mainly the financial targets were not achieved: the billing rate went from 34% to 55% against a target of 75% and the debt recovery rate went from 29.7% to 33.8%, against a target of 90%.

While at its conception the contract was supposed to be replaced by a more advanced form of PSP, negotiations between the two partners - the public authority and the private sector operator- proved unsuccessful. As a result, the management of the water service was transferred back to the responsibility of the Public Water and Sanitation Establishment of North-Lebanon (WSE NL). Interviewed experts pointed to the institutional complexity and the fragmentation of responsibilities as the principal factors limiting the outcomes of the Tripoli experience, more particularly the existence of two contracting authorities, CDR and WSE NL. Additional factors include the fact that the Establishment maintained the administrative and legal responsibilities after the signature of the contract; and the limited involvement of the MEW in addition to the weakness of the monitoring and arbitration mechanisms. The debt problems of the WSE NL and the obligation of the private sector to use public rules posed an additional burden. Ondeo Liban has completed an evaluation of the Tripoli experience that examined the performance with regard to human resources and at the commercial, financial, technical (water production, water quality, distribution networks) and communication levels. The evaluation outlined also the main challenges encountered throughout the implementation of the contract and highlighted the benefits for the consumer, the Establishment and the Government, as assessed by the private company.

These results may serve as a basis for discussion and comprehensive evaluation of the factors that influenced the contract's performance in order to draw lessons for future experiences and identify the needed reforms to improve the conditions for PSP.

2.3.4 LESSONS LEARNT AND OPPORTUNITIES FOR FURTHER PRIVATE SECTOR PARTICIPATION

The Tripoli experience showed that the management contract offered employees and managers the opportunity to learn about PSP while being involved in its implementation and monitoring. Short-term contracts entailing low risk for the private sector, such as management contracts, could possibly help build capacity within government and local authorities and provide them with the expertise and know-how to manage more advanced PSP contracts.

However, for more advanced forms of PSP and despite the efforts made by the Government to improve the related enabling environment, constraints to the development of PSP in the water sector remain important:

- The illustration of the Government's political will and true engagement in this type of cooperation is altered by slow implementation of the legislative and regulatory framework reforms. The legislative framework reform, initiated in 2000, including the adoption of laws and decrees allowing PPP contracts and guaranteeing their implementation, is still in progress. The allocation of roles and responsibilities among the government, the public establishments and the local authorities, mainly regarding the supervision of the performance and the contractual obligations of the private sector, is still unclear. The lack of means and capacity within the public administrations leads to a de facto re-allocation of responsibilities and increases the institutional perplexity.
- The investment framework is still marked by high political risk. Private sector and Foreign Direct Investments (FDIs) are essentially interested in highly profitable sectors in the short term, such as real-estate and financial investments of the diaspora.
- The commercial risk is also high in view of the current performances of the Water and Sanitation Establishments. In particular, the weakness in cost recovery rates limits the private sector's profitability perspectives. An additional difficulty, as the Tripoli experience has shown, concerns the improvement of the financial indicators. In this context, it is essential that the Lebanese Government examines the governance challenges related to the legal reform and institutional restructuring and facilitates their implementation through capacity building and operational strengthening of the concerned structures in order to send a strong signal of its engagement to the private sector. The lessons learned from this experience need to be drawn and better appreciated in order to benefit potential future PSP initiatives.

2.4 FINANCIAL SUSTAINABILITY OF WATER SERVICES

2.4.1 PUBLIC FUNDING AND DEBT SUSTAINABILITY

The Lebanese government is still functioning based on the national budget developed in 2005 to tackle different priorities and the funding process passes through the Ministry of Finance (MoF), which sometimes puts transactions on hold because of budgetary deficits. Ministries then often require the financial assistance of international donors to carry out their work plan.

For example, the investments' needs for infrastructure development (mobilization and treatment of the resource, supply and distribution of drinking and irrigation water and collection and treatment of wastewater) identified by both the 10-year Strategy Plan and the National Water Sector Strategy are significant and come up against strong financing constraints. This also concerns "soft" investments for the management of the sector, including institutional, tariff, legal and regulatory reforms.

The MEW identified the capital expenditure requirements (CAPEX) and operational expenditure requirements (OPEX) until the year 2020 respectively at US \$ 7.7 billion and US \$ 2.1 billion approximately. The Strategy also identified that 66% of total investments are financed by foreign funds and 34% by local funds.

Although no updated estimations exist beyond 2010⁹ only a small part of the needed funds have been secured until now. Also, Operation and Management cost recovery, targeted by 2014 has not been achieved.

Despite the efforts of the Government to implement the agreed upon set of policies and targets, the influx in the country of approximately 1.4 million of refugees due to the war in Syria has shifted priorities mainly towards emergency responses and other crisis coping mechanisms.

⁹ By 2010 the National Sector Strategy estimated the funds already secured for new projects at \$ 1.6 billion and a total of \$ 2.45 billion funding the design and implementation of on-going, committed and planned projects.

2.4.2 TARIFFS AND THE FINANCIAL SUSTAINABILITY OF WATER SYSTEMS

The interest of private operators in infrastructure projects depends mainly on the incurred risks and the existence of risk mitigation mechanisms. These risks can be commercial, financial, political, contractual, etc. Risks represent important parameters for private investors and can make projects less attractive to foreign investors and/or may necessitate the provision of significant guarantees. Insurances covering these risks can be contracted by the foreign investors, but are added to the PPPs costs (see following box on risks and guarantees).

BOX 2: TYPOLOGY OF RISKS RELATED TO THE WATER SECTOR AND MITIGATION MECHANISMS

Private sector participation involves some transfer of responsibilities and thus of risks to the private partner. These risks can be classified in two main categories:

- **Legal and political risks:** i.e. infrastructure expropriation, political interference, payment default by public institutions, wars and instability, weak legal framework, weak or arbitrary regulator, devaluation and currency inconvertibility, etc.
- **Commercial risks:** i.e. tariff affordability and population's resistance to pay, demand variation, information asymmetry and hidden costs, costs of inputs in particular energy, etc.

Mitigation mechanisms involve in the first instance an assessment of the party best able to manage it. A wide range of contractual arrangement for risk sharing optimization is available to policy makers and forms a *quasi-continuum* between cases where the public sector assumes most of the risk to cases where there is significant risk transfer to the private sector.

Governments can also provide guarantees to mitigate the risks (typically sovereign guarantees against the contracting authority' default risk). A wide range of insurance, premium and guarantees depending on the covered risk's nature are also offered by specialised agencies such as:

- MIGA (the Multilateral Investment Guarantee Agency): offers premium guarantees against political risk that can cover up to 200 million US \$ based on the evaluation of the country risk and the project risk. Sovereign counter guarantees are not required in general. MIGA has joined the Dubai International Financial Centre (DFIC) to launch a joint political risks insurance programme for the Arab world in order to support foreign direct investment flows.
- COFACE¹⁰ offers premium guarantees to cover associated or isolated commercial and political risks. The premium varies according to the nature of the covered risk, the country classification (7 categories for country classification), the type of buyer, the risk period, the financing structure.

In Lebanon, the political risk, both domestic and external, is important because of the turbulent situation in the region. The infrastructure can be damaged during armed conflicts without provisions for compensation by the State to private investors. Political interference causing unilateral changes in the legal and regulatory frameworks in general or in specific contracts is also an important risk. The banking sector's concern about these risks was highlighted during a workshop organized by the MEW as part of the MED EUWI dialogue on PSP in water infrastructure¹¹. Experience from the water conveyor project from the Awali River to Beirut, shows that the partial risk guarantee, provided by the World Bank to protect lenders against debt service default due to political risks, was necessary for attracting private investors. Capital market in Lebanon is characterized by the absence of access restrictions to the local and international capitals as well as to the lending markets. The exchange risk seems to be under control due to the current foreign exchange reserves of the Bank of Lebanon. Indeed, the exchange rate has been maintained unchanged despite the conflict of summer 2006 and the internal unrest during 2006-2008. This is also supported through the steady contribution from tourism (mainly Lebanese expatriates), or remittances from expatriates and Foreign Direct Investment flows - FDI (mainly Arab investments in real-estate, i.e. in a sector with high return in the short term). Events impacting on security have a strong effect on tourism and FDIs; nonetheless, experience from

¹⁰ <http://www.coface.com>

¹¹ The national workshop on "Private Sector participation in the water sector in Lebanon and the role of Banks" was organised in 2010 in collaboration with the Association of Banks in Lebanon and with the support of GWP-Med and attended by about 60 participants (representing more than 30 banks and financial partners operating in Lebanon) and concluded on the necessity for promoting further common understanding of PPP contracts and their implications both legal and financial.

past years shows a certain level of resistance of tourism and FDIs during periods of instability and conflict. Moreover, and at first sight, the recent international economic crisis does not seem to have slowed down FDIs in the case of Lebanon.

Regarding revenues in the drinking water sector, the applied tariffs and the collection rates are under the responsibility of the Water and Sanitation Establishments (WSEs). Currently, tariffs do not allow the recovery of costs, even the operational ones.

Among the 4 WSEs, only the Beirut Mount Lebanon Establishment succeeds in covering the operation costs. The two Establishments of North-Lebanon and South-Lebanon manage to cover the operation costs excluding the energy costs, which represent respectively 43% and 50% of their operation costs. The Békaa-South Establishment does not manage to cover its operation costs, even without considering the energy costs and despite having doubled in the past 5-6 years the number of its subscribers. It is worth noting that the MEW is indirectly subsidizing the O&M costs of the WSEs by managing service contracts for pumping stations that fall under their responsibility. In 2009 for example, the MEW spent 2.4 million US \$ for service contracts in the three Establishments of North-Lebanon, South-Lebanon and Békaa-South. These amounts have not been reported in their balance sheets and therefore cannot be included in the analysis of their financial performance¹². Nonetheless, these subsidies are steadily declining and have been nearly obliterated in the case of the North-Lebanon and South-Lebanon Establishments.

Sanitation charges have -until now- been included in the municipal taxes collected by the municipalities. However, the National Strategy foresees a tariff sanitation fee proportional with the used volumes of water supply (at 25% of the water supply tariff at an initial stage). Charging for sanitation services will help to bring out the potential for revenue and support the WSEs' financial capacities so they can be in charge of the service. This tariff shall be introduced to some pilot areas connected to sewerage networks and treatment plants and will be increased to gradually reach full recovery of all O&M costs by 2020. Starting 2011, The WSEs have adopted a symbolic flat fee which was applied on all water customers in the country and a slightly higher one applied on all subscribers connected to wastewater networks whose water is treated in a wastewater treatment plant.

The tariff structure currently applied for potable water, is based on a fixed annual fee for a contractual volume of 1 m³/day. This annual fee varies among the WSEs: 118 US \$/year in the Bekaa Water Establishment, 140 US \$/year in the North Lebanon Water Establishment, 147 US \$/year in the South Lebanon Water Establishment and 157 US \$/year (BML Establishment).

The Strategy aims at introducing a volumetric tariff in pilot areas of fully metered connections (25% of customers in 2012) and to extend it to more customers as the meters' coverage increases. In the initial phase, the rate per m³ would be maintained at the current average and successively increased to reach O&M recovery first and then full cost recovery.

Cost recovery rates are difficult to evaluate, mainly due to the absence of volumetric metering and leakage detection mechanisms. However, according to an estimate made by the World Bank¹³, the current tariff structure could theoretically cover the operation costs (see the comparison between operation and maintenance costs and unit prices in Figure 1).

Cost recovery is not achieved because of the weakness in bill collection induced by non-payment of bills by consumers (in some WSEs the situation deteriorated further after the influx of refugees due to the war in Syria) but also by public administrations and local authorities. The fragmentation of Customer Services and other important functions, such as Procurement and Purchasing have also overall negative impacts on the financial sustainability of the utilities.

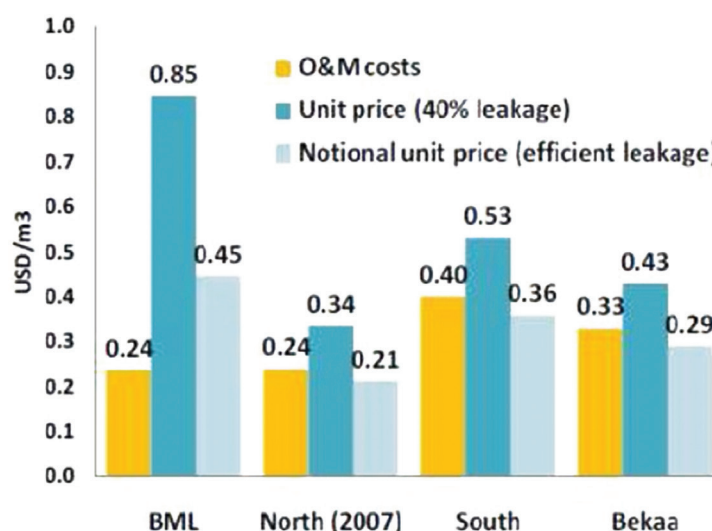
Only the Establishment of Beirut Mount Lebanon, that shows a bill collection rate of 66%, is able to cover its operation costs¹⁴. Unreliable consumers' inventory and cumbersome legal procedures for water cut-offs are the major constraints to improved bill collection rates, as well as lack of adequate grievance response and outreach to customers (women and men at household level, industries and public institutions), also due, as mentioned above, to the sub-optimal organisation of customer services.

12 World Bank (2009) "WSS sector: public expenditure review" Middle east and North Africa Region Sustainable Development Department

13 World Bank (2009) "WSS sector: public expenditure review" Middle East and North Africa Region Sustainable Development Department

14 On the contrary, the Bekaa Water Establishment records the lowest rate of collection of invoices. According to the report of the World Bank (2009) the rate is 11% which enables to cover 13% of the operating costs through revenues from water sales.

FIGURE 1: ESTIMATE OF THE UNIT PRICE PER M³ IN COMPARISON TO THE O&M COSTS



Note: Unit price (USD/m³) is calculated by dividing total billed fixed fee for residential customers (ie. fixed fee multiplied by number of connections) by the total water sold to households (assuming 40 percent leakage). The notional unit price is calculated as above assuming an efficient level of leakage (20 percent).

Source: World Bank 2009

The work on a connections inventory, initiated under the management contract of Tripoli, showed that a large number of consumers' records contained inconsistencies and/or inaccurate information: subscriptions transferred under other names without informing the Establishment, records with numbers but no consumers' names, records containing a request for cancellation while the connection has not been effectively cancelled and vice versa. It was also found that several connections are made without record numbers being assigned to them. Most of such cases concern religious establishments, universities, public administrations, police stations, cemeteries, etc. Legal procedures for managing unpaid bills require that each case is addressed/dealt with separately. WSEs are discouraged to apply water cut-off measures because of procedural delays and additional costs incurred, a fact that does not incite consumers to pay their bills.

Weak or limited cost recovery has important repercussions on maintenance, operation and rehabilitation investments. The leakage rate registered in the network is on average about 40%. The service contract experience of Tripoli revealed that it was difficult to improve the invoice rate indicators, the debt recovery indicators and consequently the technical performance of the network.

Changing the culture of non-payment for water will require extensive customer outreach and political commitment. Considering that willingness to pay may be different between men and women, it will be essential to include in each case a communication and outreach strategy along with different approaches for changing the payment behaviour. Furthermore, conducting willingness to pay and affordability assessments, whether at small scale or at national level, could be a valuable tool for understanding and eventually changing the payment culture in Lebanon.

In order to succeed, the issue of tariff setting also requires dialogue and appropriate and differentiated communication with different users' categories, including women. This presupposes a good understanding of socio-economics, gender aspects and substantially validated base data and norms.

2.4.3 NATIONAL FINANCIAL MECHANISMS FOR ENVIRONMENT AND WATER PROJECTS AND THE POTENTIAL OF CORPORATE SOCIAL RESPONSIBILITY

The large financial gap highlighted by the National Water Sector Strategy requires a substantial influx of funds to implement the identified investment needs and objectives. These can be raised at different levels, while the contribution of foreign funds is recognized as fundamental considering the inherent limitation of public funds.

In this context, it is interesting to mention some relatively recent National financial mechanisms led by the Central Bank of Lebanon (Banque du Liban - BDL) and also the potential of Corporate Social Responsibility initiatives to contribute to the identified targets of the NWSS and the sustainable management of the environment, including water resources.

2.4.3.1 Green financial mechanisms led by the central bank of Lebanon (BDL)

Starting in 2010, BDL has actively promoted a set of initiatives dedicated to the financing of green and environmental projects in Lebanon.

The "National Energy Efficiency and Renewable Energy Action" (NEEREA) was launched in 2010 as a national mechanism dedicated to the financing of green energy projects. It is based on the Intermediate Circular 236 of BDL (Basic Decision 7835), which lists the terms and conditions to get low interest green loans. In 2013, as per Intermediate Circulars 313, 318, 346 and lately 475 (Basic Decision 6116), BDL introduced new incentives to focus on energy efficiency, renewable energy and certified green buildings.

NEEREA is a green financing mechanism that provides interest-free long-term loans to residential, commercial, non-profit, agriculture, industrial and productive users for all energy efficiency and renewable energy projects for new and existing facilities. The loan is eligible for new environmental friendly projects or for existing projects to enhance their conditions in order to become environmentally sound. The loan has a ceiling of 20 million US \$ and is offered at an interest rate ranging between 0.69%-0.9% for a period that should not exceed 14 years including a grace period of 6 months to 4 years. The green loans are provided through all the Lebanese commercial banks to directly reach the end user.

NEEREA also includes two grant schemes based on an agreements signed between the BDL and the European Union (EU) from one side, and BDL and the Italian Ministry for Environment, Land and Sea (IMELS) from the other.

In addition to the BDL financing tools, technical support to evaluate the eligibility of submitted loans and capacity building activities are provided by the Lebanese Centre for Energy Conservation (LCEC) to develop the know-how among all players.

A new financing mechanism in the field of sustainable energy called the Lebanon Energy Efficiency and Renewable Energy Facility Fund or LEEREFF was recently developed (September 2017) in partnership with the European Investment Bank (EIB) and the French Development Agency (AFD), and with the support of the European Union (EU). LEEREFF adds around 80 million Euros to the amount already allocated to NEEREA and to the Lebanese Environmental Action (LEA) for Water, Air and the Environment that was launched in 2015.

LEA is jointly implemented by BDL and the Ministry of Energy and Water also with the assistance of LCEC and allows private sector entities to apply for incentivized loans for any type of environmental conservation measure related to: water, air quality, resource conservation and environment.

This includes a variety of projects, such as recycling, organic farming, ecotourism, landscape, green roofs, green walls, stones cladding, roof tiling, wastewater treatment and rainwater harvesting, sustainable water fixture etc. A set of guidelines have been drafted to specify what type of interventions can be part of this scheme.

For example, stone cladding and roof tiling projects are to consider the visual impact, conserve traditional architecture and provide insulation and water proofing. Landscaping must make use of plants adapted to the local conditions (natives), of organic fertilizers and of drip irrigation systems.

More detailed technical guidelines and criteria for specific water projects are currently being developed or are planned, such as those for water efficient and environmentally friendly agricultural projects that are developed with the support of the USAID funded Lebanon Water Project and involve the use of specific techniques, such as drip irrigation, water-saving crops, hydroponics etc.

Since LEA started, more than 75 project proposals have been submitted among which 80% are approved and 15% are under review (March 2017, BDL presentation during the 6th Beirut Water Week). The total granted Loan amounts to US \$ 45 Million with 43% of these projects being water related and costing US\$ 12 Million. Economic Sectors involved are the residential, commercial and industrial ones.

The charts below show respectively the project's distribution per measure and the granted loan by measure. Those highlighted are relevant to the water sector.

FIGURE 2: LEA RESULTS (MARCH 2017) – PROJECT DISTRIBUTION BY MEASURE

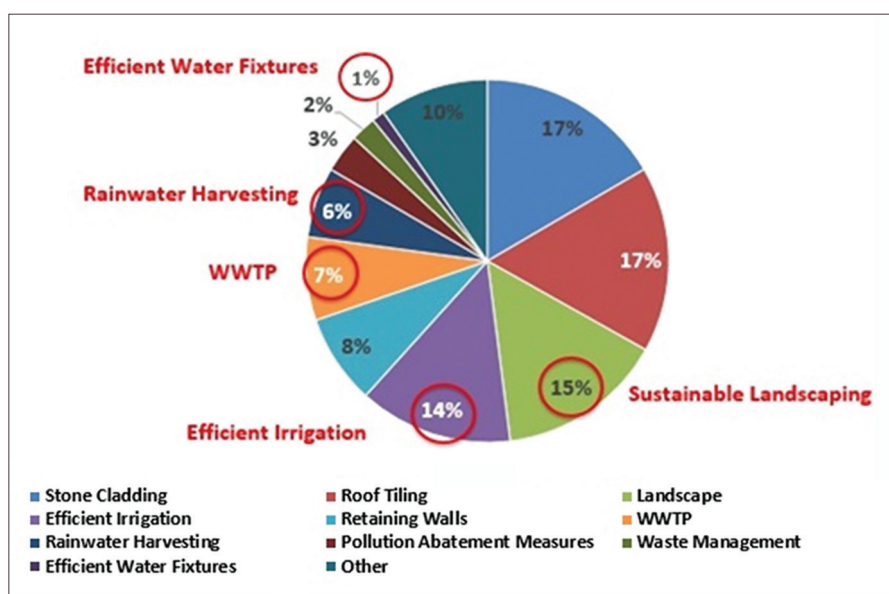
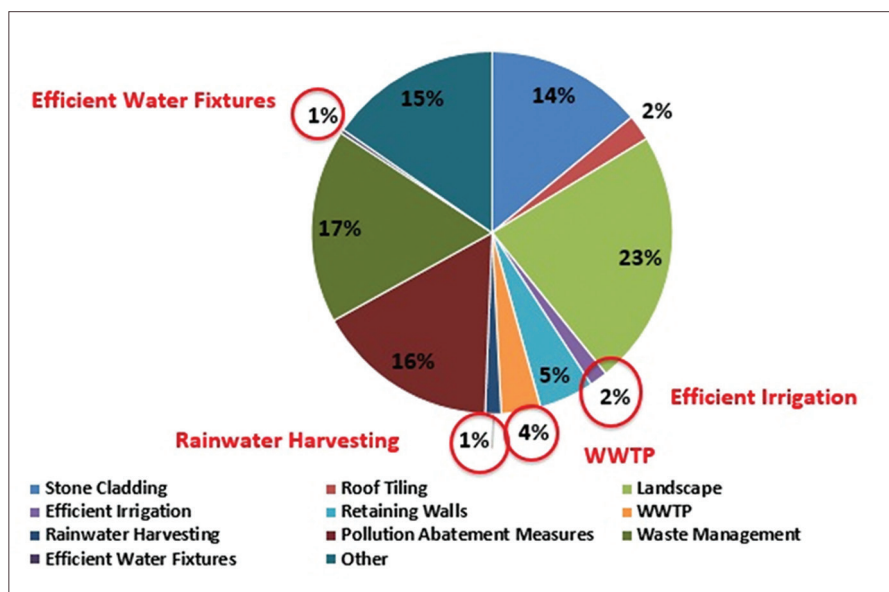


FIGURE 3: LEA RESULTS (MARCH 2017) – GRANTED LOAN BY MEASURE



Another financial mechanism relevant to the industrial sector was set up following the approval of the Environmental Compliance Decree (ECD) 8471/2012, as a collaboration among the Ministry of Environment (MoE), BDL, the World Bank and the Italian Agency for Development Cooperation with the aim to set up an environmental compliance mechanism for industrial enterprises through the Lebanon Environmental Pollution Abatement Project (LEPAP).

LEPAP provides free technical assistance to industrial enterprises through national and international consultants to evaluate their environmental status and propose actions with a view to improving their overall environmental performance in line with the national regulations. In this context, a financial mechanism was developed to support the industries to execute the recommended environmental actions by offering concessional loans supported by BDL through commercial banks. LEPAP loans which are close to zero interest rate are provided for a period of 7 years including a grace period of 2 years.

2.4.3.2 The potential of Corporate Social Responsibility initiatives

Successful PSP requires that the private sector builds trust towards the public as well as towards the public sector. This trust is based on high standards regarding ethical conduct, proactive dialogue and understanding of stakeholder needs.

In essence, the private sector has to assume a role based on good citizenship and goals which are broader than short-term profits, also taking into account the value created in society and trustful relations to all stakeholders.

This is overall defined under the concept of Corporate Social Responsibility (CSR), i.e. the continuing commitment by businesses and the private sector in general to behave ethically and to contribute to economic development while improving the quality of life of the society at large. Companies in general, and banks in particular, must take CSR into account more actively today than just 10 years ago. CSR, together with consideration of the return rate on investments, have led multi-national banks to e.g. environmental and social standards as part of the lending process.

In the international context, banks are also increasingly focusing on setting criteria and promoting “sustainable investments” as part of their investment portfolio through funds. Consequently, investment opportunities are strengthened for projects with a clear sustainability profile regarding environmental and social impact.

CSR is an area that has undergone strong development globally over recent years, and international codes, frameworks and standards are developed that support this evolution of the private sector. CSR partnerships can materialise in financial partnerships in which money flows directly, and non-financial partnerships in which technical inputs or products are distributed.

From the business perspective, CSR can generally be described as two-sided, where both sides are very relevant for the water sector: Responsible business and Shared value.

- **Responsible business** means that businesses, regardless of the sector, are expected to act based on a high level of ethics. A starting point is the respect for the rule of law. But increasingly, higher standards are expected by companies, as expressed in the voluntary frameworks such as the ten principles of the UN Global Compact¹⁵, the Global Reporting Initiative (GRI)¹⁶, or the international standard for social responsibility ISO 26000¹⁷. These higher expectations can be described in two dimensions, the first related to a set of principles for responsible business conduct and the second to a number of areas where these principles should be applied.
- The **shared value** approach is based on the insight that when the society clearly benefits from the relation to a company, also the company benefits in the long-term. This essentially means that there is strong reason for companies to work proactively with the issues that are most important to the society, and to try to achieve a clear positive change regarding these issues, whether it concerns water issues, climate change, gender equality, peace building or other. When companies can show that they add important value to the society, the relationship thrives and the company also benefits.

The Responsible business approach to CSR is relevant for all private companies. As regards specific responsibility related to water issues and water usage, that remains a fairly undeveloped field in the entire Arab region.

Tracking of own water consumption is spreading in some sectors, notably in agriculture, health and pharmaceuticals, while in the energy sector it represents only a start. The private sector needs to engage more actively with the society and the government, to understand the possibilities as well as the expectations of the public sector, the broader public and other stakeholders.

When engaging in a policy scheme for increased PSP, this needs to go hand in hand with a program to strengthen CSR in the sector and relates to areas such as anti-corruption, transparency, proactive stakeholder engagement, environmental concerns, respect for human rights. A program for strengthened CSR in the private sector can be driven along several dimensions:

- Education and training
- Requirements on reporting and transparency
- Requirements on codes of conduct

15 A voluntary initiative based on CEO commitments to implement universal sustainability principles and to take steps to support UN goals

16 An international independent organization that helps businesses, governments and other organizations understand and communicate the impact of business on critical sustainability issues such as climate change, human rights, corruption and many others

17 A guidance developed to help organizations effectively assess and address those social responsibilities that are relevant and significant to their mission and vision; operations and processes; customers, employees, communities, and other stakeholders; and environmental impact

- Forums for dialogue between business and the public sector
- Regulations in line with global codes and standards (i.e. ISOs, GRI, Occupational Health Safety Assessment Series (OHSAS) etc.)

The shared value approach gives additional opportunities. Since water is clearly one of the most critical issues in Lebanon, this makes it an attractive issue to engage in proactively, for companies that have no other direct link to the sector. This could e.g. include;

- Industries that are significant water users like:
 - Construction companies
 - Energy sector
 - Agriculture
 - Consumer goods
 - Food sector
- Banks
- Insurance companies
- Real estate companies

Environmentally sensitive industries, such as the agriculture and the energy sectors tend to both track their energy use and adhere to the environmental standards to greater extent than other sectors. For instance, 100 per cent of the energy companies and 75 percent of agricultural companies currently track their energy usage. Furthermore, 75 percent of agricultural companies and 60 percent of the energy companies in the Arab region adhere to environmental standards in comparison with 17 per cent of the finance and 20 per cent of the health and pharmaceuticals sector.

These industries need to be made aware of the opportunities available to them by increasing engagement in the water sector. The engagement can take many forms, such as responsible water use in own operations, community engagement regarding responsible water use or responsible investments in the water sector.

In Lebanon, the concept of CSR has been strengthened over the last years thanks to connections with international business, but also through locally specialised consulting firms. It is encouraging to see the development of local social enterprises aiming to raise awareness and provide a better understanding of the CSR concept among the public and private sectors, and in the community. Local actors engage to provide information to companies, and support them in embodying CSR in their core business strategies and operations, aiming to align profitability with sustainability and human development.

To this purpose, between 2009 and 2016, a set of initiatives have been promoted, including forums, networking events, workshops, training courses, NGOs exhibitions and road shows involving more than 5000 participants from corporate & bank leaders, executives, experts, academics, journalists, government representatives, international & local organizations, and civil society organizations. The UN Global Compact (UNGC) has also appointed a focal point in Lebanon to launch the Global Compact Local Network (2012-2015)¹⁸.

As a direct result of these efforts, 150 banks and companies in Lebanon have taken action on CSR or promised to put CSR on their future agendas and there was an 88% increase in UNGC participants from Lebanon until 2015.

Unfortunately, UNGC is still weak on gender despite enshrining in its principles to "Respect human rights" (Principle 1) and "Eliminate discrimination in the workplace" (Principle 6).

2.5 CROSS-CUTTING ISSUES

2.5.1 WATER INTEGRITY AND TRANSPARENCY

Several of the water problems in Lebanon stem from poor governance and mismanagement of the sector. Therefore, an improved governance system based on integrity, transparency and accountability in the sector's practices should be among the main priorities in the fight against existing challenges.

¹⁸ The UNGC is a leading international initiative calling companies globally to align strategies and operations with universal principles on human rights, labour, environment and anti-corruption, and take actions that advance societal goals.

In 2016 the corruption perception index for Lebanon was 28/100 on a scale of 0 (highly corrupt) to 100 (very clean) while the country ranked 136th among the 176 analysed (the ones holding the 176th place being considered the most corrupted).

The index was created in 1995 by Transparency International to score countries on how corrupt their public sectors are considered to be. Behind these numbers is the daily reality for people living in these countries. While the index cannot capture the individual frustration from reality, nonetheless it captures the informed views of analysts, businesspeople and experts in countries around the world and sends a powerful message to governments.

The recent approval by the Lebanese Parliament (on 19 January 2017; the bill was submitted to the Parliament in 2009) of the Law for the public right to receive information is a very positive development, as this law forces every single institution to publish its budget, especially its expenditures, and also allows any person to request access to information from all public entities and a small number of private entities as well.

If effectively implemented this law would be an important step forward to ensure transparency and scrutiny of public sector's work. However, it would also be important to complement this law with the ratification of other three major anti-corruption laws and regulations that are currently under review by the Lebanese Parliament:

1. Law for the establishment of an independent national anti-corruption committee - this committee would be responsible for receiving complaints by citizens and public officials and sending them to the judiciary system
2. Law for the protection of whistle-blowers - this law encourages the whistle-blowers to present complaints and evidence
3. Reformulation of the law for illicit and illegal enrichment, which targets Members of Parliament (MPs), ministers, and judges. The law dictates that public officials must declare their own assets and wealth, and the assets and wealth of their dependents within the first month of their mandate, and within three months after their mandate. Articles 351 and 352 of the Lebanese Penal Code Law makes such a declaration binding for MPs, ministers, and judges, and states that sanctions and penalties would be imposed if gifts are accepted with the purpose of betraying the national interest.

Concerning the existing laws, regulations and measures for combating corruption and enhancing integrity in the Lebanese governmental and non-governmental institutions, missing integrity components were highlighted in an assessment carried out in 2015 in the framework of the "Capacity Building Programme on Water Integrity in the MENA region", implemented by the Stockholm International Water Institute (SIWI) and other partners including GWP-Med as the core regional partner, with the financial support of the Swedish government.

The assessment, entitled "The Way Forward to Safeguard Water in Lebanon - National Water Integrity Risk Assessment"¹⁹ makes a much deeper analysis and sheds light on the main challenges for water integrity in the country.

Water integrity is defined by as "the adherence of stakeholders and institutions to governance principles of transparency, accountability and participation in water resources management, based on core values of honesty, equity and professionalism."

At the level of existing laws (the baseline refers to the year 2005, i.e. before the approval of the new Law for the public right to access information in 2017), the assessment highlights the fragmentation of such documents and their inefficacy, e.g. due to the lack of operational decrees and the fact that they are often unclear, resulting in the overlap in roles and responsibilities within and between institutions. Long ratification processes create important delays in the approval of new laws by the Parliament.

Enforcement is also poor, due to weak legal prosecution and the absence of one entity that is responsible for following-up on violations, as well as the absence of accountability mechanisms within the monitoring agencies. As a consequence, citizens who do not comply with existing laws and regulations, might resort to bribery and political connections. This practice has resulted, for example, in the increase of illegal wells or of illegal connections to the water network, which are difficult to be identified by the responsible authorities.

In general, water resources data is limited and is not publicly disclosed because it is considered confidential and a national security issue due to the lasting conflict between Lebanon and Israel. In some cases, data is also seen as a source of income, where citizens have to pay to get access to it, thus leading to illicit financial gains from the sale of public data.

¹⁹ Issam Fares Institute for Public Policy and International Affairs, American University of Beirut. (2015) "The way forward to safeguard water in Lebanon – National Water Integrity Risk Assessment"

Transparency concerns, including political interference in the appointment and hiring of human resources in the public sector, were also highlighted. This, beside other important factors such as low salaries, discourages new applicants to potentially consider governmental jobs.

Similar worries extend also to the procurement procedures that despite being regulated by law are perceived to be non-transparent. In some cases, the law appears to be misinterpreted and / or exploited when some contractors access the required standards and eligibility criteria from undisclosed sources.

The assessment also describes the results of interviews on the topic of privatization of the water sector. Opinions varied between supporters of privatisation (10%), opponents (43%), or others supporting it as long as the public sector oversees its operations, but such a mechanism does not currently exist (47%). The main concern expressed by interviewed stakeholders concerning privatization was that access to water would be a privilege to those who are capable of paying for it, which might lead water to becoming a luxury resource rather than a public commodity.

These perceptions mirror the feeble trust of the Lebanese people in their institutions and are potentially also the result of a gap in the communication between the authorities and the citizens, who are usually not part of the decision-making process, but rather recipients of decisions taken by others.

2.5.2 ENGAGING WITH STAKEHOLDERS

In his interview with The Business Year magazine in 2013, the Secretary General of Lebanon's Higher Council for Privatization (renamed in 2017 as High Council for Privatisation and PPP), Mr. Ziad Hayek, highlighted the poor involvement of relevant stakeholders in the design, tendering, and contracting process as one main cause preventing the successful engagement in PPP projects in the country. This was mentioned along with other causes, such as the delays in relevant legislation and the weak transparency processes already highlighted above.

In fact, stakeholders' engagement and encouragement of public participation in the decision-making are overall not practiced by Lebanese institutions and are usually left to the personal initiative and commitment of project promoters or are implemented as actions required by donors.

The processes carried out for the review of the 10-year Sector Strategy Plan and its update until 2018 and the preparation of the National Water Sector Strategy in 2010 (NWSS, finally approved in 2012) have involved primary governmental stakeholders and to the extent possible Lebanese non-governmental actors. The latter, including the academic sector, civil society, private water bottling companies and donor agencies, despite not being mandated by law with responsibilities, still play an important role in supporting the water sector. The academic sector in Lebanon is vital for the generation of water-related data that is widely used in the production of national environmental reports and plans. The Inter-Governmental Organisations (IGOs), in their turn, play a great role in research and infrastructure projects implemented in the country, through allocated funds. Civil society in Lebanon is a very active agent at community level and leads many advocacy and awareness campaigns related to water conservation and anti-corruption movement and, in some cases, implements local water-related projects. Private water bottling companies are the leading distributors of drinking water, in addition to tankers distributing bulk water for domestic use, specifically in times of drought (MoE; UNDP; ECODIT, 2011). Companies providing potable water also fill a gap, as drinking water reaching residents is sometimes polluted or perceived to be polluted, leaving citizens to seek alternative sources of water. Furthermore, water for domestic use is distributed through tankers, which however do not function within a legal framework and are not regulated, thus potentially putting people's health at risk.

Following the drafting of the NWSS, the Ministry of Energy and Water has also moved on with the preparation of Regional Master Plans (South Lebanon and Bekaa Master Plans have been approved while the Plan for North Lebanon is currently in its draft form) and carried out public meetings to present and discuss the outcomes.

However, as already mentioned above, the involvement of stakeholders and the encouragement of access to public information represent an initiative taken by few decision-makers and is not a commonly followed approach.

The most structured and institutionalised form of public participation in the country is probably represented by public hearings and consultations organised in the context of Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) studies. Article 19 of the Environment Law 444/2002 also recognizes the inherent right of the public to participate in decision making.

Based on the EIA Decree No. 8633/2012 and its Annexes, a copy of the environmental study prepared for any project should be publicly disclosed at least two weeks before the public hearing that the project proponent has to organise at their own costs. The resulting deliberations should be incorporated in the final study. This is a key step to guarantee the right of the public, and particularly of the citizens in the focus area, to express their views and participate in the decision making.²⁰

It should be noted that the first draft Environment Impact Assessment decree was prepared more than a decade before its approval. In the meanwhile, MoE has been enforcing the EIA in many sectors by mainstreaming the process into the “permits” procedure of several line ministries including Public Works & Transport, Industry, and Tourism.

Other forms of public participation, although passive ones, include televised debates and documentaries, radio interviews, and submission of editorial pieces to newspapers and magazines.

More recently, the advent of social media tools has created unlimited opportunities for public expression but, again, not of direct involvement in the decision-making processes.

It is obvious that much more needs to be done at all fronts (institutions, laws, civil society) to enhance the culture of openness and disclosure in the country so that every citizen is given the opportunity to participate in issues of concern.

As a positive development in relation to the challenges of weak transparency and accountability mentioned before, in 2015, during the Conference of State Parties to the UN Convention Against Corruption (UNCAC), Lebanon pledged to increase transparency and civil society participation in the UNCAC review mechanism.

The Pledge was emphasised as being in line with the Lebanese people’s desire for transparency, and as an important element in the fight against corruption.

The pledge outlines six principles for better cooperation between civil society and governments²¹:

- We will publish updated review schedules for our country review
- We will share information about the review institution with civil society
- We will announce the completion of the country review indicating where the report can be found
- We will promptly post online the self-assessment and the full country report in a UN language, together with the executive summary in local languages
- We will organise civil society briefings and public debates about the findings of the report
- We will publicly support participation of civil society observers in UNCAC subsidiary bodies

2.5.3 GENDER MAINSTREAMING

Gender refers to the socially constructed characteristics of women and men – such as norms, roles and relationships of and between groups of women and men. It varies from society to society and can be reflected in laws, cultural norms and community practices, such as those limiting women’s access to property rights. Being socially constructed, these can be changed.

Gender mainstreaming is a strategy for making women’s as well as men’s concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes so that both women and men benefit and to ensure that inequality is not perpetuated.

As such, gender equality ²² is the overarching and long-term development goal, while gender mainstreaming is a set of specific, strategic approaches as well as technical and institutional processes adopted to achieve that goal.

Also in the water sector women and men have usually different priorities or needs and use infrastructural services in different ways. This has important consequences for investment policies and programme design in the sector and needs, therefore, to be well understood and taken into account.

20 However, none of these stipulate engagement with women

21 https://www.transparency.org/news/pressrelease/lebanon_pledges_to_increase_transparency_civil_society_participation_in_the

22 Gender Equality is achieved when women and men, girls and boys, have equal rights, life prospects and opportunities, and the power to shape their own lives and contribute to society. Equality between the sexes is a question of a fair and equitable distribution of power, influence and resources in everyday life and in society as a whole. A gender-equal society safeguards and makes use of every individual’s experiences, skills and competence.

For example, since women are often caretakers and water resource managers at household level, in case of scarcity they may need to spend even more time on managing the resources instead of productive work. Water cuts might cause bacteriological and chemical pollution of the supply system due to decrease in pressure, that can cause water borne diseases risky for children, the elderly as well as for pregnant women (risk of abortion) and people with other diseases. There is both a cost at the personal health level as well as for the society in terms of loss of lives and income. Again care-taking of sick family members is mainly done by women, increasing their workload.

Furthermore, due to a combination of factors related to both gender roles and to the different nature of men and women, the potential contribution of each one to sustainable water management should also be better understood and utilised. While women rarely work in the water sector, and when present they are not filling high managerial or decision-making positions, more female representation in related posts could potentially improve water integrity issues, especially if linked to tightening of control mechanism and closing corruption-vulnerability in the systems. For example, cost-recovery rates, one of the issues affecting the water sector in Lebanon, can likely be increased by communicating also with women in general and with women at household level in particular.

Therefore, special attention and enough resources should be earmarked by institutions and by the private sector to ensure equal involvement and contribution of women and men to the management of water resources.

Gender equality and mainstreaming are relevant in various ways for the PSP in the Water Infrastructure in Lebanon. In no specific ranking order, some selected reasons can be presented as follows:

1. Customers of water supply in Lebanon are women and men. Communicating directly with women as payers of water related services, with arguments that are relevant to them and using specific channels of communication can represent a successful strategy to increase payment rates.

According to a survey conducted by the SWMENA (Status of Women in MENA region) in 2009, four in ten women reported they kept their earned income on personal use whereas 49% reported they spent the money on their family and children²³. As level of education increases, so does the percentage of women who keep their income for personal use, and the opposite is true for money spent on family and children. Seven per cent (7%) of the surveyed women reported they gave all their earning to their spouse or parent for managing. 66% of surveyed women were currently or formerly married. They reported that 55% of women who work for pay have the final say about making household purchases for daily needs. In households where married women did not work, 12% of husbands had final say over household purchases, while only 7% of husbands had final say when their wives were working.

2. Companies with equal opportunities policies are likely to lead better investment projects, while lack of women in top management is a potential risk, one that has largely been ignored since mixed management groups perform better. 43.5% of firms in Lebanon have female participation in ownership (World Bank 2016), but only 4.4% of the firms have top management that includes women (World Bank 2016). According to a range of studies, companies with women in top management and on the boards do better. Two examples are:
 - Companies with more women on their boards were found to outperform their rivals with a 42% higher return in sales, 66% higher return on invested capital and 53% higher return on equity²⁴.
 - A McKinsey study (2010)²⁵ of 279 big corporate enterprises from the UK, France, Germany, Spain, Sweden, Norway, and the BRIC countries (Brazil, Russia, India and China), compared the companies with women in top management with companies without women in top management. The comparison was made per sector and those with women in top management were more successful than the companies managed by just men. The return on equity was 41% higher in these companies and the so-called EBIT margin (i.e. earnings before interest and taxes) was 56% higher.
3. Potential water entrepreneurs can be women as well as men. Ignoring women as entrepreneurs is a potential loss of business possibilities. Even though women in Lebanon are freer, according to the law, to establish their own business and access credit lines, there are still many obstacles for them to start their business, mainly rooted in traditional values.

23 <http://swmena.net/en/about>

24 EBRD calculations, based upon the Catalyst, 2007, The Bottom line: corporate performance and women's representation on boards.

25 McKinsey "Women at the top of corporations- Making it happen" Women Matter 2010, McKinsey and Company, Paris, 2010.

33% of Lebanese women have an account at a financial institution²⁶, and have access to bank loans and other forms of financial credit, without any direct discrimination. In fact, 35% of IT entrepreneurs are women in Lebanon (compared to only 10% world-wide) breaking through in a traditionally male dominated area. There are no figures for the water sector though, but if private banks are increasingly accepting women as business entrepreneurs, there is potential for also boosting the water sector with more female engagement.

4. Multinational finance institutions; as potential investors, have gender equality high on their agenda, both because gender equality is considered smart economics, and also because it is a human rights issue. Looking at multinational finance institutions such as the World Bank (WB) and the European Bank for Reconstruction and Development (EBRD) in general, and how they work with gender mainstreaming, can provide commercial banks in Lebanon and other relevant stakeholders with ideas for improved rate of return and can as well save time further ahead in their communication with the multinational banking system when applying for financial support.

26 <http://reports.weforum.org/global-gender-gap-report-2016/economies/#economy=LBN>



3

WAYS FORWARD: IMPROVING FINANCIAL SUSTAINABILITY, THE REGULATORY FRAMEWORK, WATER INTEGRITY, STAKEHOLDERS' ENGAGEMENT & GENDER MAINSTREAMING

3.1 INTRODUCTION

This chapter builds on the diagnostic analysis and proposes ways forward to overcome the main governance challenges faced by Lebanon, in its effort to reform the water sector and promote its financial sustainability also through the involvement of the private sector.

It focuses particularly on areas of recommendations addressing (1) financial constraints; (2) regulatory framework weaknesses; and (3) need for increased stakeholders' involvement through mechanisms for building trust, creating accountability and improving buy-in.

To this respect, it is important to sustain dialogue and consultation among stakeholders and with the private sector in particular, to see which type of activities and models of partnership would be of interest to private investors within the water sector and be of benefit for all. Less risky contracts, such as short-term management contracts, could be interesting for the private sector and at the same time promote a better understanding of the respective partners' expectations and of the difficulties, thus function as pilot cases for exploring and testing options and possibilities.

3.2 IMPROVING THE FINANCIAL SUSTAINABILITY OF WATER SERVICES

As mentioned in previous sections of this document, the Lebanese water sector faces a significant financing gap that inhibits its performance and financial sustainability.

Of the four Water Establishments (WSEs), only the Beirut & Mount Lebanon Water Establishment does not suffer from a shortage of funds. Moreover, the focus of WSEs is on water supply only with no wastewater and irrigation activities performed so far. The lack of technical capacity, financial autonomy and accountability are preventing the full takeover of Operation and Management responsibilities.

The National Water Sector Strategy (NWSS) also highlights the importance for WSEs to focus on Strategic Planning and Business Planning and improve the still fragmented or sub-optimal organization of Customer Service and other important functions, such as Procurement and Purchasing that can impact on the financial status of the utilities.

In order to address the financial constraints, urgent actions are needed related to strategic planning, funding abilities, human capacity and procurement. These are exemplified in the NWSS and with a focus on:

- Restructuring of the WSEs;
- Provision of needed support for WSEs to gradually reach full administrative and financial autonomy;
- Provision of mechanisms for improved WSEs performance management;
- Improvement to support functions, including Strategic Planning and Business Planning, Fixed Asset Management, Customers' Service, Control and Audit functions, among others;
- Provision of the required manpower levels and capabilities to ensure an appropriate operation and maintenance of assets and the delivery of water at optimal service levels.

3.2.1 INSTITUTIONS AND THEIR DEVELOPMENT

In developing countries, Strategic Financial Planning (SFP) is an essential part of building the case for external support through Official Development Assistance (ODA) or loans from International Financing Institutions (IFIs) because it identifies why and where such funds are needed to complement revenue from user charges and domestic public budget resources, and demonstrates how financial sustainability can be attained.

A common starting point of SFP is the development of a Sector Investment Plan (SIP) to determine the funding necessary to meet given targets. The aim of a SIP is to direct finance to where it will have the greatest impact, meeting targets for the least investment. Another objective is to assist with fund-raising by identifying different means for obtaining additional finance and providing arguments for more effective contesting of government budgets²⁷.

²⁷ <https://www.oecd.org/env/resources/43949580.pdf>

Recognizing that in the absence of a plan, foreign donors support projects in line with a specific agenda, the National Water Sector Strategy (NWSS 2010), approved by the Lebanese Government in 2012, contains an Investment Plan with estimations for the period 2011-2020 of the:

- total capital expenditure requirements (CAPEX);
- total operational expenditure requirements (OPEX); and
- revenues of the water sector.

It also shows that 66% of the total on-going and planned investments in the period 2001-2015 are largely financed by foreign funds and 34% by local funds.

Moreover, the NWSS also contains a Strategic Roadmap section that details the entirety of initiatives – infrastructure and sector management– that are needed to be implemented until 2020, including an estimation of their costs and anticipated sources of funding.

However, a prioritization exercise was not carried out to rank these initiatives based on their impact and investment needs and this might be one of the factors contributing to the –thus far– very limited implementation of the set targets, almost seven years after the preparation of the NWSS.

The preparation of a SFP could be beneficial in this direction, as it would help updating the Investment Plan, and identifying preferences or affordability constraints from consumer budgets, variable levels of service under different policy scenarios, etc.

In fact, one fundamental step of the SFP process involves the promotion of policy dialogue and consensus building on realistic water-sector targets, which results in a shared understanding of the issues at stake from all relevant stakeholders. It also illustrates the impact of different objectives and targets in a long-term perspective and provides clear and transparent data about the sector's finances and financing requirements, which eventually facilitates external financing.

The process leading to the NWSS had the merit of involving most stakeholders from relevant institutions, to ensure ownership of the result. It also involved and engaged the donors' community.

The successive preparation of some Regional Master Plans has also started a process for engaging other key stakeholders, including local authorities, users and the civil society although more detailed information is not available at the time of writing this report.

3.2.2 PROCUREMENT DECISION BASED ON THE NEW PPP LAW

Currently there is very limited capacity for the public officials in Lebanon to undertake the entire PPP process on their own, especially that the skills required for preparing and tendering projects on a PPP basis differ substantially from the skills required for traditional procurement.

Based on the recently approved Law 48 on the Regulation of Public Private Partnerships, the HCP's Secretariat General would provide training to the public sector staff to develop their capabilities and enable them to effectively study and manage PPP projects.

This is very important considering that it remains the responsibility of line Ministries to prepare a pre-feasibility study for any proposed PPP project, based on a template provided by the HCP.

The Secretariat General of the HCP (the Council hereinafter) shall then prepare an adequate study of the PPP Project and submit to the Council a report including its recommendation regarding the feasibility of executing it through a Partnership Agreement, the extent of the interest of the private sector to finance it and invest in it, in anticipation of the Council's resolution to accept or reject the proposal.

When the Council decides to accept the proposal and thus to proceed with the project, it shall form a project committee which is chaired by the Secretary General of the Council and which includes one representative of the Concerned Minister, one representative of the Ministry of Finance and the chairman of the sector's regulatory body (where it exists) and the president of the municipal council or the president of the federation of municipalities, when looking into projects of municipal nature which have been subjected to the provisions of the PPP law. The project committee shall also select financial, legal and technical consultants to assist it in its work; these consultants would be retained by the Council.

The project committee will be supported by a working team, whose work is coordinated by a delegate of the Secretariat General of the Council, and which shall include representatives of the Public Entity benefitting from the PPP Project and representatives of the retained financial, legal, and technical consultants as well as experts of specific specialty, as may be necessary, selected from the concerned ministries and existing regulatory bodies and any moral person of public law which the project committee deems that some aspects of the PPP Project fall within the scope of its powers.

The project committee, assisted by the working team, shall be responsible for preparing a comprehensive feasibility study on the PPP Project covering its technical, economic, legal and financing aspects, including the prequalification criteria and the extent of investor interest and the possibility of attracting the necessary financing and shall submit a report with its recommendation to the Council.

After the Council approves to proceed with the PPP Project the President of the Council shall refer the project file to the Council of Ministers. After the Council of Ministers approves to proceed with the PPP Project, the project committee shall launch the process for selection of the Private Partner in accordance with the principles set out in the PPP law.

The PPP law has not called for the calculation of the PSC (and therefore of VfM) and does not rely on it as a tool to assess whether the project should be tendered traditionally or through PPP, but rather bases this decision on the findings of the feasibility study, the extent of investors' interest and its bankability (or willingness of lenders to finance it).

The reason for choosing this approach derives from the consideration that calculating the PSC, i.e. assessing all costs and revenues from a life-cycle perspective of the project, and exhaustively identifying the main sources of risk and monetizing them, is all based on assumptions and requires historical data on comparable projects traditionally tendered by the government. As such, this remains a theoretical calculation based on long-term forecasts and highly vulnerable to errors.

For Lebanon, the overruns related to risks of on-time and on-budget completion run at 25% for cost and 35% for time for projects that have been publicly procured.

The EIB has recently established an advisory facility called MED 5P²⁸ (Public-Private Partnership Project Preparation in the Southern and Eastern Mediterranean) that assists with the initial preparatory stages of PPP projects and includes Lebanon among the focus countries.

MED 5P can fund legal, technical and financial advisory services for the preparation of an individual PPP project. It can support projects at different stages of maturity, from potential PPPs in need of a pre-feasibility assessment to transactions at a more advanced stage of preparation that require advice for their structuring, procurement and implementation. Besides the financial support to fund advisory services, MED 5P can also provide technical support for the procurement process and supervision of the consultancies funded by MED 5P grants.

It should be noted that the PPP efforts would be void in the absence of competition. This is a dilemma in the whole region however, as private operators are few and mostly with insufficient experience. The relevant institutions should encourage local operators to enter the market in association with experienced operators with specific roles identified in advance. Standard contracts for PPPs should be developed, detailing also social and gender safeguarding indicators from which the enterprise performance will be assessed.

3.2.3 CAPACITY

To ensure success and sustainability of the process, it is essential to have qualified individuals, irrespective of gender, and entities involved in the PPP programme from both public as well as private sectors. Extensive training (gender sensitive) is needed but should be accompanied by hands-on practice for both male and female staff. This means that local and external experts can be retained and embedded within the procuring organisations. The provisions of the recently approved PPP Law would be very beneficial in this direction as they foresee the training of public sector staff to develop their capabilities and enable them to effectively study and manage PPP projects.

Annex II presents a mapping of training needs for most of the WSEs. It was developed by MEW in collaboration with the EU-funded SISSAF project in September 2016 and remains largely valid.

Contract management and PPPs are listed among the capacity building needs of some of the WSEs, along with other relevant issues such as procurement, performance management, fixed asset management, operation and maintenance, custom services.

However, support towards improved control and audit functions, Strategic Financial Planning and Business Planning, and the budgetary process that can be useful to ensure the affordability and sustainability of a PPP project are not mentioned. The reason for this might be that WSEs are not contemplating, in the short-medium term, to go into advanced PPP contracts.

A recent fact-finding mission (17-23 September 2017) carried out by experts of the EU funded SWIM-H2020 SM identified the training needs of the water-related public institutions in relation to procurement, tendering and contract management procedures for PPPs in water and wastewater based on existing gaps.

28 <http://www.eib.org/projects/regions/med/med5p/index.htm>

Following the mission, a capacity building workshop is planned to be organised in the first half of 2018 with a focus on structuring PPP arrangements for water and wastewater infrastructure projects, and differentiating the PPP process for different contract options.

In particular, the objectives are:

- To understand different perspectives on contracting PPPs
- To manage and monitor risk: risk allocation, risk allocation matrices, risk reduction and contract structuring.
- To make the business case for PPPs in water and wastewater, including critical enabling pre-conditions for a successful and sustainable PPP framework
- To discuss critical factors facilitating and barriers constraining PPP projects
- To develop the capacity of PPP contract management, supervision and contract compliance control.

Additional information is available at the SWIM H2020 SM webpage: <https://www.swim-h2020.eu/>

3.3 IMPROVING THE REGULATORY FRAMEWORK FOR WATER

Although availability of funds is a necessary condition for the effective implementation of the water sector related infrastructures and services, the potential to attract more finance, and to continue to receive sustainable flows and make effective use of what is available, mostly depends on widespread reforms in policies, institutions, management and users' behaviour, throughout the water sector, in short on the status of water governance.

This means that only when the sector as a whole is properly governed, when the laws, institutions, policies and management structures are robust, issues such as tariff reform, efficient management of water and sanitation services, the role of private sector participation, pro-poor initiatives and affordability, discouraging water pollution, etc. can progress as part of a comprehensive policy framework ²⁹.

To this respect, the Lebanese National Water Sector Strategy (prepared in 2010 and approved in 2012) recognizes the importance of moving swiftly forward with already planned sector reforms that regard:

- 1- The production of the final version of the draft Water Code and following up the process for its effective implementation and enactment
- 2- Strengthening the legal framework in order to improve the performance of the delivery of water and wastewater services

As for the Water Code, the draft prepared by the Ministry of Energy and Water has been only recently adopted by the Council of Ministers (7 October 2017) and still requires approval by the Parliament.

The key components of the Water Code are listed in the box below.

BOX 3: KEY COMPONENTS OF THE WATER CODE ³⁰

- Recognition of the main legal principles prevailing actually in the field of water:
 - the sustainable management
 - the right of each citizen to receive water
 - the determination of the missions of the Public Authorities to provide drinking water, treatment of wastewater, fight against flood, drought and pollution
- Introduction of a National Water Council including the representatives of the main authorities in charge or concerned by the water sector
- Implementation of a Water master plan to guarantee the realization of water and wastewater infrastructure
- Recognition of the administrative, environmental economic and financial requirements of water resources management
- Determination of the utilization of water including the legal possibilities to Private Sector Participation

²⁹ <https://www.oecd.org/env/resources/43949580.pdf>

³⁰ As in the National Water Sector Strategy

It is expected that the implementation of the Water Code will promote a better coordination and overall planning of the water sector, once approved by the Parliament and duly implemented.

In addition, steps to improve the existing legislative and regulatory frameworks are also urgently needed. At legislative level, the most urgent include:

- the organizational bylaws of the Water Establishments
- a new organisational law for the Ministry of Energy and Water's restructuring
- amendments of Law 221/2000 to provide better performance to the end users

Concerning the set-up of an efficient regulatory framework this should give enough emphasis also to sub-sectors that have so far been neglected, such as wastewater collection and disposal and irrigation.

Moreover, as mentioned in other sections of this document and pertinent to PSP schemes, there is also the need for setting a transparent tariff structure and developing a procurement framework.

The recently adopted PPP Law 48 is a positive development in this direction.

3.3.1 SUPPORTING AUTONOMOUS, EFFICIENT AND FINANCIALLY SUSTAINABLE SERVICE PROVIDERS

Although steps have been already taken to consolidate service provision in autonomous regional water establishments (WSEs) through Law 221/2000, the implementation of the reform has not been fully concluded and the WSEs are not yet empowered to act with full administrative and financial autonomy. This does not support a conducive environment for PSP.

The financial sustainability of the service providers should be adequately supported and revenues should be put back into the system; for them to be able to operate and improve the delivery of services.

A proper tariff system is needed, accompanied by accountability measures on the use of revenues, improving the collection of bills and enhancing the capacities to efficiently manage the resources available. Currently the absence of volumetric charges is limiting incentives for conservation at the consumer level, and for WSEs to reduce losses or increase availability of resources. The Ministry of Energy and Water has plans to modify the current tariff structure, e.g. by substituting flat with volumetric tariffs both for water supply and sanitation, while for wastewater a new tariff is planned to be introduced in proportion with the used volumes of water supply.

However, before proceeding and since tariff changes will have an impact on the different types of consumption, this impact needs to be defined through pertinent studies and accompanied with public outreach, awareness and campaigns / education programs, both to enhance conservation efforts and behavioural change, particularly towards non-payment of bills. In this context, special attention should be given to the different social clusters (poor, woman, youth) and to making use of the roles of customers (female/male) to promote behavioural change. Furthermore, conducting willingness to pay and affordability assessments at local level and/or at national level, has shown significant benefits as decision support tools and for mainstreaming social considerations in the tariff setting process.

It is also very important to base the re-setting of tariffs on transparency regarding the costs of supply and operation, for users to understand well the connection between tariffs and service delivery as this could also result in a more successful payment of bills by building trust between the service providers and the end users.

Accountability mechanisms need also to be in place along with performance indicators to evaluate the WSEs and adequate reporting mechanisms to disclose information publicly. In this sense, the performance indicators previously elaborated and applied in the framework of the GIZ support to WSEs could be used as a basis or revised as needed.

3.4 ENHANCING THE POTENTIAL OF THE BANKING SECTOR

The role of the Lebanese banking sector in supporting green and environmental projects has been already highlighted in a previous section of this assessment (see chapter 2.4.3.1), dedicated to green financial mechanisms led by the Central Bank of Lebanon (BDL).

Building on the conclusions of the previous work on sustainable water PSP that was conducted under MED EUWI (see section 2.1) and the input of the present Assessment and the accompanying Policy Dialogue for enhancing the involvement of the banking sector in water PSP, a set of criteria for specific water projects is being developed in the framework of the Lebanese Environmental Action (LEA) dedicated to the financing of loans in water, air and the environment with the support of different partners.

This targeted support, is provided in the framework of the overall Dialogue on Governance & Financing of Water Projects in Lebanon: Private Sector Participation and Role of Banks in Investments. The Dialogue represents a strategic synergy between the European Union-funded Sustainable Water Integrated Management-Horizon 2020 Support Mechanism (SWIM-H2020 SM) and the Union for the Mediterranean (UfM) labelled and Sida-supported regional project *Governance & Financing for the Mediterranean Water Sector*.

In particular, the EU-funded SWIM H2020 SM is assisting BDL in developing criteria for the selection of Non-Conventional Water Resources Management (NCWRM) projects, based on efficient options.

This activity is complemented through consultations with private sector and banks, reinforcing a forum of exchange that is necessary to solidify and speed-up the needed actions in an open, transparent and inclusive manner. The Dialogue on "Water Governance & Financing in Lebanon: the potential for Private Sector Participation in Water Infrastructure with emphasis on the role of Banks" was launched during the 6th Beirut Water Week (27-28 March 2017) and included 2 further consultation workshops (respectively on 10 October and 8 November 2017). The reports of these workshops, including recommendations to move forward, can be found at <http://www.gwp.org/en/governanceandfinancing/#>:

The involvement of banks in this consultation process represents a novelty, and if supported further it can not only assist with the financial sustainability of the Lebanese water sector but also constitute a pioneering model to be replicated elsewhere in the region.

Moreover, the inherent innovation of the proposed work lies with the 'learning by doing' approach, through assessing small-scale water projects to be implemented as pilot cases/"demonstration" projects through private sector/banks support and that would assist constructive discussion and better understanding of enabling conditions

Thus, it is a two-way process that has the added value of the direct practical implementation and testing of the agreed upon criteria and actions.

3.5 ENHANCING WATER INTEGRITY, STAKEHOLDERS' ENGAGEMENT AND GENDER MAINSTREAMING

3.5.1 HOW TO IMPROVE WATER INTEGRITY?

Improving integrity and transparency is essential for ensuring good water governance frameworks. In this sense, and based on the analysis made in the diagnostic part of this document, it seems urgent to undertake a set of enabling initiatives.

Some of these, also identified in the framework of the "Capacity Building Programme on Water Integrity in the MENA region" project, are listed below, starting from those that concern the overall public sector and continuing with the ones most relevant to the water sector:

- Endorse an anti-corruption Committee, independent from the executive and legislative powers that will support clear accountability mechanisms and transparent procedures, including public participation and access to information, and investigation on corruption cases.

The Committee would be in charge of preparing draft bills, review and assess all legislations related to combating corruption, as well as setting policies towards prevention, and for the elaboration of clear, detailed and precise anti-corruption laws. These would tackle corruption at all levels, including: political and bureaucratic, grand corruption mainly related to procurement and public works, and corruption practiced at the level of human resources in the public sector.

- Concerning the last point, measures should be taken to review the wages of public servants because the low range of remuneration is one of the reasons why employees accept bribes. To the same purpose, the interactions between citizens and public servants should be minimised, e.g. by using online procedures instead of long bureaucratic paperwork.
- Ensure the regular accountability and transparency in the public sector, e.g. by properly activating Article 19 of law 4517/1972, based on which institutions are obliged to submit yearly reports of their work, including performance, financial audits and progress reports. A step forward in this direction is represented by the law for public access to information, ratified by the Lebanese Parliament in January 2017. If properly enacted, this law would give the public access to archived data, through clear and simplified procedures. A collective database created between

institutions would facilitate sharing knowledge, and accessing and producing information. This database will also allow citizens to access the required information without having to go through long bureaucratic procedures.

- Guarantee transparent and independent recruitment procedures for new positions in the public sector e.g. by clearly defining the criteria required and limiting political interference. A monitoring system should also be set-up to evaluate employees' performance independently from politicians.
- Along with the already mentioned legislative steps to enact properly the sector reform (Law 221/2002) it seems important to move forward with the creation of a National Water Council including the representatives of the main authorities concerned by the water sector to overlook the management of resources and be linked to the anti-corruption Committee above.
- Set-up of an accountable and transparent monitoring entity within the Ministry of Energy and Water, in collaboration with the Ministry of Interior and Municipalities to help control illegal connections to the network and the illegal digging of wells.
- Adoption of the metering system with set tariffs, which helps in controlling consumption, as well as further monitoring water use.
- Creation of a reliable shared database of water-related projects for sharing knowledge between institutions, including: project scope, executors, funding source and amount, beneficiaries, outcomes and outputs. This would improve performance, and increase transparency and accountability in planning and managing resources. It should be noted that such a database exists and is regularly updated by the Ministry of Energy and Water together with bilateral donors and international agencies implementing projects in Lebanon. It is indeed a valuable knowledge sharing tool and should be made more visible, e.g. by uploading it on the MEW website or actively sending it to other pertinent Lebanese institutions and organisations.

3.5.2. HOW TO ENHANCE STAKEHOLDERS' AND PUBLIC ENGAGEMENT IN THE WATER SECTOR?

As described earlier the practical experience in interactive dialogue at the level of policy and decision making remains rather limited in Lebanon. Even more limited, is the possibility of stakeholders to participate in informed public debates. This also applies to the water sector, where examples exist but are not extensive.

Therefore, it is necessary to expand the dialogue on water-related issues to include NGOs, academics, citizens and local authorities. This can help gain greater citizens' buy-in, a shared understanding of the issues at hand and more informed inputs to the decision-making process.

Such a target is absent from the National Water Sector Strategy that refers to stakeholders' participation exclusively in connection with irrigation management, and specifically to the creation and capacitation of formal Water Users Associations (WUAs). Moreover, the public involvement is only envisaged as receptor of awareness raising messages towards water saving and other conservation initiatives.

In order to increase awareness on the real water status in the country and the costs of developing, supplying and maintaining the water resources, data has to be established in a database and a process of periodical reporting from the database should be set-up. This also relates to informing about the pros and cons of engaging the private sector. The key issue is to develop a sufficient knowledge base, reinforce trust and establish a regular communication platform.

Children and youth of both sexes can play a key role to encourage behavioural change. Hence, better educational materials for different grade levels related to water availability and sustainable development should be developed. In order to make these support materials effective, and to ensure that teachers are using them efficiently, comprehensive training programmes need to be developed further for educators.

Environmental conservation clubs can be introduced by NGOs as contribution to awareness raising and capacity development. In the face of increasing water scarcity and rapidly growing population, it is proposed that a secondary school water conservation curriculum be established covering the natural water cycle and water sources in Lebanon: irrigation, pollution, home gardens, household water consumption, and groundwater and surface water. The curriculum can emphasise the importance of engaging students in discussions and hands-on experiments to help them understand the topic's relevance and the need to change their water consumption habits. Such project would build skills among staff members of the NGOs, open a public dialogue on water conservation, and introduce Lebanese teachers to interactive teaching on water-related and environmental issues.

Representatives of Ministries, utilities, NGOs and private sector groupings can be trained on water issues. The role of communication and bridging in knowledge cannot be ignored, and should be fully utilised as relevant and possible; and should be performed relentlessly. This role should not be left to the Ministry or the regulator alone, but across

the sector entities in all capacities, technical, informative, and advisory. A gender perspective would significantly broaden the understanding of customers and how communication can be used to reach both men and women.

Efforts should be made according to a well-planned communication strategy designed with indicators to periodically assess the impact of the messages, and should go beyond mere awareness raising to the point where they are participatory and inclusive and with a long-term horizon. Analyses of consumers' needs and existing knowledge, attitudes and behaviours are also important. Such analyses are significantly more useful if conducted with a gender perspective (e.g. disaggregating data and analysing differences to develop an adequate communication strategy). This cannot be left to the water sector to execute single-handedly. Specialised companies can be retained for the purpose until in-house experience is built.

3.5.3 HOW TO ENHANCE GENDER MAINSTREAMING?

Diversity in professional bodies dealing with water increases the organisational performance in general. Although engineers are essential, they are not the only group of professionals to engage for a well-managed water company, also economists, sociologist/gender specialist, communication experts, ICT experts etc. are needed. For instance:

- Sociologist to better understand clients and benefits, as well as to identify social and gender risks (e.g. in relation to the refugee situation of Lebanon)
- Human Resources specialists to ensure the institutions/companies make use of all available human resources and get the most out of their staff
- Communication experts to e.g. communicate with customers in relation to payments, smart water management, in-house repairs, and to increase knowledge about responsibilities and rights.

Besides broadening the competence of the company, the aforementioned diversity may also lead to the engagement of more women.

As for the engagement with the public, several community-based organisations that are led by women, and several NGOs working with and for women's engagement and access to decision-making processes exist in Lebanon. These can be used as partners to the government when actively seeking to increase women's access to decision-making.

As regards getting more women engaged as entrepreneurs in the water sector, it is imperative that the government leads by example. The Lebanese government can undertake outreach to reach female business owners who may be interested in investing in the water sector. This will though require the use of new alternative means of communication as well as new messages.

The Lebanese Central Bank can ensure that credits to private banks are conditioned with criteria that increases gender equality in the loan procedures, including setting up criteria that favours gender equal companies as well as companies showing how they reach both male and female customers with their services or products. In this regard, the EBRD has significant experience in working with the banking sector on how to broaden their customer base, and get more female clients.

It is further suggested that the Lebanese government makes use of international experiences (from international/multinational banks and private companies) by considering to:

- Steer investments towards companies with mixed management and boards as they outperform non-gender-equal companies in financial terms.
- Consider environmental and social standards used by such multinational investment banks, as EBRD, WB and EIB. The standards put e.g. demand on both environmental and social management systems, including resources management and equal opportunities and stakeholder engagement.
- Consider International Finance Corporation (IFC) stakeholders engagement guidelines for investment consultations, which provides information on how to plan and carry out stakeholder engagement (see chapter 2.5.3 above for more details).



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ANNEX I

REPUBLIC OF LEBANON
PARLIAMENT

UNOFFICIAL TRANSLATION OF LAW 48 DATED 7 SEPTEMBER 2017
REGULATING PUBLIC PRIVATE PARTNERSHIPS

ARTICLE I:

For the purpose of this law, the following definitions shall have the following meanings:

Public Entity: The State or public institutions including regulatory bodies or municipalities or federations of municipalities and all moral persons of public law.

Private Partner: A private sector company, or consortium of local and/or foreign private companies, which has been awarded the Partnership Agreement.

PPP Project: Any public benefit project in which the private sector contributes through financing and management, and at least one of the following activities: design, building, construction, development, restoration, equipment, maintenance, rehabilitation and operation.

Partnership Agreement: A group of contracts, annexes, undertakings and guarantees that govern the contractual relation between the Public Entity, the Project Company and other concerned parties.

The Council: The High Council for Privatization and PPP.

Project Company [SPV]: The Lebanese joint stock company established by the Private Partner for the purposes of carrying out the PPP Project.

Concerned Minister: The minister in charge of the administrations or supervising the public institutions, including the regulatory bodies or municipalities or federations of municipalities, under which the PPP Project falls.

Construction Phase: The period starting on the date of signing the Partnership Agreement by concerned parties till the completion of the design and building and/or construction, and/or development, and/or restoration, and/or equipment, and/or maintenance and/or rehabilitation process/es as stipulated in the Partnership Agreement.

Operational Phase: The period starting on the start date of service provision and operation and maintenance processes till their completion date as stipulated in the Partnership Agreement.

ARTICLE II:

- 1- The provisions of this law shall govern all PPP Projects undertaken by the State and public institutions and all moral persons of public law with the exception of municipalities and federations of municipalities which may choose to subject their PPP Projects to the provisions of this law.
- 2- Contrary to any other text, the provisions of this law shall govern PPP Projects stipulated in the laws regulating the telecommunications sector, the electricity sector and the civil aviation sector.
- 3- Upon the approval of the Council to proceed with the PPP Project, the regulatory body of the sector would exercise its duties regarding the issuance of licenses through its membership in the project committee. In case the positions of the chairman and members of the regulatory body were vacant, the approval of the Council of Ministers is considered de facto as an issued license.
- 4- The regulatory body exercises its duties as per the regulating law establishing it, provided that these duties do not violate the provisions of this law and the provisions and terms of the Partnership Agreement, especially those related to the amendment of service prices set in the agreement, and those related to the imposition of fines and the suspension and amendment and renewal and cancellation and withdrawal of licenses.

ARTICLE III:

1- The designation of the “High Council for Privatization”, established pursuant to Law No. 228 dated May 31, 2000, is replaced wherever mentioned by the “High Council for Privatization and PPP”.

The Council shall in addition to the powers granted to it pursuant to the above-mentioned law handle the tasks stated in this law.

2- The Concerned Minister shall automatically join the Council [as a member].

3- The “Secretary General of the High Council for Privatization” title as mentioned in the Decree No. 5540 dated May 23, 2001 is replaced by the title “Secretary General of the High Council for Privatization and PPP” [the “Secretary General”]. The Secretary General heads the Secretariat General of the Council and conducts and manages the regular work of the Council.

ARTICLE IV:

1- PPP Projects are proposed by the President of the Council or the Concerned Minister, and PPP Projects of municipal nature are proposed by the president of the municipal council or the president of the federation of municipalities. The proposal is made through the submission of a file to the Council which shall include a preliminary study of the project.

2- The Secretariat General of the Council shall prepare an adequate study of the proposed PPP Project and shall submit to the Council a report including its recommendation regarding the feasibility of executing the proposed PPP Project through a Partnership Agreement, the extent of the interest of the private sector to finance it and invest in it, in anticipation of the Council’s resolution to accept or reject the proposal.

3- When the Council decides to accept the proposal and thus to proceed with the project, the Council shall form a project committee which is chaired by the Secretary General of the Council and which includes one representative of the Concerned Minister, one representative of the Ministry of Finance nominated by the Minister of Finance and the chairman of the sector’s regulatory body where it exists and the president of the municipal council or the president of the federation of municipalities when looking into projects of municipal nature which have been subjected to the provisions of this law. The project committee shall also select financial, legal and technical consultants to assist it in its work; these consultants would be retained by the Council.

4- The project committee will be supported by a working team, whose work is coordinated by a delegate of the Secretariat General of the Council, and which shall include representatives of Public Entity benefitting from the PPP Project and representatives of the retained financial, legal, and technical consultants as well as experts of specific specialty, as may be necessary, selected from the concerned ministries and existing regulatory bodies and any moral person of public law which the project committee deems that some aspects of the PPP Project fall within the scope of his powers.

The Public Entity, to whom the project committee’s or working team’s member is affiliated, shall be responsible of settling any additional remuneration due to him/her and shall execute such payment according to its bylaws.

ARTICLE V:

The project committee, assisted by the working team, shall be responsible for preparing a comprehensive study on the PPP Project covering its technical, economic, legal and financing aspects, including the prequalification criteria and the extent of investor interest and the possibility of attracting the necessary financing and shall submit a report with its recommendation to the Council.

ARTICLE VI:

After the Council approves to proceed with the PPP Project for projects undertaken by the State or public institutions and any moral person of public law with the exception of municipalities or federations of municipalities, the President of the Council shall refer the project file to the Council of Ministers. After the Council of Ministers approves to proceed with the PPP Project, the project committee shall launch the process for selection of the Private Partner in accordance with the principles set out in this law.

After the Council approves to proceed with a PPP Project of municipal nature which has been subjected to the provisions of this law, the President of the Council shall refer the project file to the president of the municipal council or the president of the concerned federation of municipalities to obtain the required endorsements in accordance to the provisions of the legislative decree number 118 dated 30 June 1977. Once endorsements have been obtained, the project committee shall launch the process for selection of the Private Partner in accordance with the principles set out in this law.

ARTICLE VII:

- 1- The process for the selection of the Private Partner shall be subject to the principles of, transparency, freedom of participation of competing bidders and their equal treatment, and the bid shall be given wide and sufficient publicity to ensure a multitude of competing bids.
- 2- The process for selection of the Private Partner shall start with the publication of a public invitation to those interested in being nominated to be awarded the PPP Project. This invitation shall include the prequalification criteria which suit the size and nature of the PPP Project. This invitation shall be published in local and international press as well as in specialized magazines and on the Council's website, at least a month prior to the deadline of expression of interest submission.
- 3- The project committee shall provide the parties interested in being prequalified with the necessary information and instructions which would serve as a basis for their pre-qualification applications. It is prohibited to prequalify or to select a Private Partner that has been declared bankrupt, and was in a state of liquidation, or have been convicted according to local or foreign judgments for acts of collusion or illicit practices. In case the Private Partner were a consortium, each of the consortium's members shall satisfy these conditions. It is also prohibited to enter into a contract with a Project Company whose president or one of its board members have been convicted by a final verdict of a felony or misdemeanor.
- 4- The project committee, assisted by the working team, shall study the submitted pre-qualification applications and examine their supporting documents. The project committee shall evaluate the prequalification applications based on the published prequalification criteria and shall submit a report to the Council including the names of the prequalified candidates as well as of those who did not prequalify and the basis for their decision. Once the Council has taken the appropriate decision, the prequalification results shall be published, and the number of prequalified candidates shall be no less than three.
- 5- In case less than three candidates were prequalified; the public invitation to those interested in being prequalified is published again.
- 6- The project committee shall justify its decision to the candidates who were not prequalified.
- 7- The project committee, assisted by the working team, shall prepare a draft tender document. This draft shall include, without being limited to:
 - a. The evaluation criteria specific to the PPP Project, which should be objective and which should suit the size and nature of the project and should be directly related to it and should be auditable and verifiable.
 - b. The project information, which includes the procedures for bid submission and the financial, technical and administrative elements of the project and the mechanisms for inquiries, objections and their settlement.
 - c. The draft Partnership Agreement and its annexes.
- 8- The project committee shall send the draft tender document to the prequalified candidates.
- 9- The project committee, assisted by the working team, shall conduct consultations with all of the prequalified candidates and lenders in a neutral and transparent way to reach a comprehensive and final conception of the technical requirements, the practical means and the best financial structure to undertake the PPP Project. The draft tender document shall be amended, if necessary, by the project committee in light of these consultations.
- 10- The project committee shall submit the tender document, in its final form, to the Council. Once the Council approves the tender document, the President of the Council shall submit it to the Council of Ministers for final approval. With regards to PPP Projects of municipal nature which have been subjected to the provisions of this law, and once the Council approves the tender document, the President of the Council shall refer it to the president of the municipal council or the president of the concerned federation of municipalities to obtain the required endorsements in accordance to the provisions of the legislative decree No. 118 dated June 30, 1977.
- 11- The project committee shall send the tender document to the prequalified candidates.
- 12- The prequalified candidates shall prepare their technical and financial proposals and shall submit them to the project committee in accordance with the principles set out in the tender document.
- 13- In case less than three proposals were submitted, the tender for the PPP Project is launched again. In case this does not result in the submission of at least three proposals, two proposals may be deemed sufficient to proceed, subject to the approval of the Council of Ministers.
- 14- The project committee shall open the technical proposals in the presence of the bidders to check for their compliance with the submission requirements stipulated in the tender document. The project committee may ask the bidders to provide necessary clarifications, missing information and confirmation of commitments, if any, subject to a defined deadline.

- 15- The technical proposals which are not compliant with the requirements of the tender document shall be rejected and their related financial proposals shall be returned unopened to their bidders. The reason for non-compliance shall be notified to the bidders.
- 16- The project committee, assisted by the working team, shall evaluate the remaining technical proposals according to the criteria defined in the tender document, and shall identify the accepted technical proposals in light of this evaluation. In case less than two technical proposals were accepted, the tender is launched again to ensure competition.
- 17- The project committee shall open the financial proposals of the accepted technical proposals in the presence of the bidders and shall submit afterwards a report to the Council classifying the bidders in light of the technical and financial evaluation. The project committee shall attach to the report its recommendation with respect to the best bid based on the evaluation criteria stated in the tender document.

The project committee, with authorization of the Council, shall negotiate with the best bidder, in the aim of improving the proposal from a technical aspect.

ARTICLE VIII:

The winning bidder is the bidder who submitted the best proposal as per the evaluation of the project committee based on the evaluation criteria stated in the tender document, and as approved by the Council.

The project committee shall announce the outcome of the bidding process and shall notify the remaining bidders of the reason for their failure.

ARTICLE IX:

- 1- The Private Partner shall establish a Lebanese Joint-Stock company (the Project Company) where all of its shares shall be nominative and which shall be subject to the provisions of the Code of Commerce, enacted by the Legislative Decree No. 304 dated December 24, 1942 while being exempted from the nationality requirement provided for in Articles 78 and 144 and from the requirement of appointing an additional auditor; and The [Project Company's] Chairman and or CEO shall be exempted from the obligation of obtaining a work permit.
- 2- Regarding PPP Projects undertaken by the State or public institutions and any moral person of public law with the exception of municipalities or federations of municipalities, the Private Partner shall not have the right to relinquish its shares in the Project Company before the project reaches the operational stage, as defined in the Partnership Agreement, without the approval of the Council of Ministers, whereas the approval of the municipal council or the federation council is required for projects of municipal nature.
- 3- The Public Entity shall be allowed to participate in the establishment of the Project Company and to contribute to its capital, and its in-kind contribution shall be exempted from the verification treatment provided for in Article 86 of the Code of Commerce such that the valuation is performed by an independent entity with international experience. The members of the board of directors shall be selected by the General Assembly and the Public Entity shall be represented for the duration of its contribution by at least one member appointed by the Council of Ministers based on the suggestion of the Concerned Minister.
- 4- The Project Company shall not be subject to the monitoring of the Court of Accounts.

ARTICLE X:

The Partnership Agreement shall be signed by the authorized signatory on behalf of the Public Entity and by representatives of the Project Company. When necessary the Private Partner and any other concerned party shall as well sign the Partnership Agreement. The Partnership Agreement shall include the following:

- 1- Each party's rights and obligations;
- 2- The financing basis of the PPP Project;
- 3- The duration of the Partnership Agreement, which shall not exceed thirty-five years starting from the date of signature;
- 4- All revenues that the Project Company will receive from the Public Entity, or revenues that the Public Entity will receive from the Project Company, depending on the nature of the PPP Project, for the performance of the works entrusted to the Project Company pursuant to the Partnership Agreement, as well as the methods of payment of these revenues;

- 5- The fees and tariffs and royalties related to the PPP Project that the Government or the municipal council or the federation council may authorize the Project Company to collect on behalf of and for the account of the Public Entity;
- 6- The key performance indicators of the Project Company;
- 7- The reports that the Project Company should prepare in connection with the execution of the PPP Project and should submit to the Public Entity and the Council;
- 8- The allocation of risks between the Public Entity and the Project Company, in addition to the actions to be taken and procedures to be followed to reduce the impact of such risks;
- 9- The rules for amending the Partnership Agreement's main conditions;
- 10- The guarantees, commitments and obligations which may be given by the Project Company and/or the Private Partner and/or the Public Entity for the implementation of the PPP Project;
- 11- The money and properties of the Public Entity which is put at the disposal of the Project Company throughout the term of the Partnership Agreement for the performance of its obligations, in addition to the rights and obligations of the Project Company in respect of such money and properties;
- 12- The procedure of transfer of the PPP Project in due course to the Public Entity, when the nature of the Project requires such transfer;
- 13- The procedures required to ensure the continuity of the PPP Project and the works performed under the Partnership Agreement upon termination of the Partnership Agreement, whether due to its expiration or early termination or in the event of failure by the Project Company to perform any of its contractual obligations;
- 14- The procedures and penalties that may be imposed on either party in the event of any breach of its contractual obligations and the detailed mechanisms to execute such procedures;
- 15- The dispute resolution mechanism, which can include mediation and domestic and international arbitration.

ARTICLE XI:

The Public Entity shall be in charge of the monitoring the execution of the PPP Project in all its aspects as stipulated in the Partnership Agreement. The monitoring activity is undertaken over two phases, the Construction Phase and the Operational Phase.

1- The Construction Phase

- a. Immediately following the signature of the Partnership Agreement by its parties, the Public Entity shall appoint:
 - i. A steering committee, chaired by a representative of the Public Entity and consisting of representatives of the Concerned Minister - in case the Public Entity was other than the State-, the Council's Secretariat General, the Ministry of Finance and the regulatory body of the sector if it exists.
 - ii. A project management office for the Construction Phase, which includes in addition to its concerned members, specialized experts and local and/or international consultants as deemed necessary according to the PPP Project's nature. The project management office plays the role of interface between steering committee and the Project Company.
- b. The project management office shall receive and evaluate the reports submitted by the Project Company in connection with the execution and progress of works, and shall prepare quarterly monitoring reports and submit them to the steering committee. The monitoring reports shall show the extent of compliance of the Project Company with the execution timetable stipulated by the Partnership Agreement and shall include suggestions regarding urgent matters requiring settlement.
- c. The steering committee shall meet on a quarterly basis and whenever an urgent matter arises in order to review the monitoring reports submitted by the project management office and to issue necessary instructions and submit reports to the Public Entity, and the Concerned Minister – in case the Public Entity was other than the State – and the Council's Secretariat General.
- d. The Public Entity other than the State, and upon approval by the Concerned Minister, may take necessary measures and decisions based on the reports of the steering committee and the project management office.

2- The Operational Phase

- a. Before this phase starts, the Public Entity shall appoint a project management office for the Operational Phase, which includes in addition to its concerned members, a representative of the regulatory body of the sector if it exists and specialized experts and local and/or international consultants as deemed necessary.
- b. The tasks of the project management office shall include, without being limited to:

- i. Monitoring the operations of the Project Company with regards to output and level and quality of the requested services relative to the required standards and with regards to risk allocation.
 - ii. Proposing measures to remedy any breach of obligations by the Project Company and to impose sanctions as per the Partnership Agreement.
 - iii. Contributing to the management of arising disputes resolution.
 - iv. Ensuring the general compliance of the Project Company with the terms stipulated in the Partnership Agreement.
- c. The project management office for the Operational Phase shall present the monitoring results in reports on a bi-annual basis and whenever necessary. A copy of these reports shall be sent to the Public Entity for it to take appropriate decisions, and to the Concerned Minister in case the Public Entity was other than the State, and to the Council's General Secretariat for their information and opinion and referral to the Council whenever necessary.

ARTICLE XII:

The Council's Secretariat General shall:

- 1- Prepare annual reports regarding the program of PPP Projects, and proposals aiming at developing and encouraging public private partnerships in general, and submit them to the Council for referral to the Council of Ministers.
- 2- Train the staff of the public sector to develop their capabilities and enable them to effectively study and manage PPP Projects.

ARTICLE XIII:

- 1- Contrary to any other text, the Public Entity shall have the right to put at the disposal of the Project Company real estate properties that it owns and that it deems necessary for the execution of the PPP Project for the duration of the Partnership Agreement.
- 2- If the implementation of the PPP Project requires the expropriation of private properties, either the Council or the Project Company shall request from the Public Entity to expropriate these properties.
In this case, the expropriation rules shall apply and the decisions for the seizure and the transfer of ownership shall be issued within 6 months of the issuance of the decree declaring public benefit.
The expropriated properties shall be registered in the name of the Public Entity in the land registry, and the Project Company shall be given the right to use such expropriated properties for the duration of the Partnership Agreement.
- 3- The Project Company or the Private Partner has the right to fully or partially finance, with the Public Entity, the compensation for the expropriation of the real estate properties required for the PPP Project, such that this financial contribution is considered an integral element of the financing of the PPP Project.

ARTICLE XIV:

The expenses of the PPP Project to be borne by the government shall be accounted for in the national budget.

ARTICLE XV:

Each of the Council and the Public Entity shall retain the experts and consultants referred to in this law based on their respective bylaws whenever they exist, otherwise, based on the provisions of the general accounting law.

ARTICLE XVI:

The provisions of this law shall not prevent the Private Partner and the Project Company from benefiting from the provisions of Law No. 360 dated August 16, 2001 and relating to the development of investments in Lebanon and from the provisions of Law No. 705 dated December 9, 2005 and relating to the securitization of assets.

ARTICLE XVII:

The implementation details of this law shall be set, when necessary, by virtue of decrees adopted by the Council of Ministers, upon proposal by the President of the Council.

ARTICLE XVIII:

This law shall become effective immediately upon its publication in the Official Gazette.

ANNEX II

FORECAST OF REQUIRED TRAINING ASSISTANCE IN THE COMING 2-3 YEARS (REFERENCE DATE: SEPTEMBER 2016)

NORTH LEBANON WATER ESTABLISHMENT

FORECAST OF REQUIRED TRAINING ASSISTANCE IN THE NEXT 2-3 YEARS		
Topic of the Required Assistance (Training)	Position of each WE staff to be Trained	Nr. Of Staff to be Trained
Operation and maintenance of Water Treatment Plants (WTP) & WWTP	Engineers Head of departments	15
PPP	Engineers Head of departments	20
Contract management	Financial Head of departments	
Performance based contracts		
Twinning		
HR management	Human resource Head of departments	10
Inception training		
Procurement management	Engineers Head of departments	20
Assets management	Administrative Head of departments	
(Documentation and valuation)	Financial Head of departments	
NRW	Engineers Head of departments	20
Demand management		
Leak detection		
IWRM		
Underground water demand management		
Customer services management	Administrative	20
Build & Equip service center		
TOT - train of trainers	Administrative staff	20
Build & Equip a training center	Engineers	
IT servers and networks management	Engineers Head of departments	10
	Technicians	
GIS/SCADA.	Engineers Head of departments	15
Meter reading and management		

FORECAST OF REQUIRED TRAINING ASSISTANCE IN THE NEXT 2-3 YEARS		
Topic of the Required Assistance (Training)	Position of each WE staff to be Trained	Nr. Of Staff to be Trained
How to detect the electric power of transformers, electric panel boards related to station and networks	Engineers and technicians in the engineering and projects department production and waste water treatment department	10
Prepare technical specifications for parts and accessories related to pumping stations and networks	Engineers and technicians in the engineering and projects department production and waste water treatment department	10
Fundamentals of preparing management terms book and contractual papers	Head of engineering department and head of divisions	3
How to design, manage and operate water tanks	Engineers and technicians in the engineering and projects department production and waste water treatment department	15
How does electric & mechanical gates function and how to choose its general specification, types and way of functioning	Engineers and technicians in the engineering and projects department production and waste water treatment department	15
Structural, architectural and electro-mechanical design of an ideal pumping station	Head of engineering department and head of divisions	4
Locating and designing potable water wells, along with supervision on the drilling process done by contractor. Teaching all the tests that should be done on the well to make sure that it was drilled according to specifications in the specs terms book	Engineers and technicians in the engineering and project department production and waste water treatment department	10
Analysis and evaluation of the public budget and financial reporting	Accounting divisions, general budget department	10
Inventory adjustment and accounting errors and processing	Accounting divisions, financial auditor	6
The essential tools for the effective management of warehousing and stores	Stores division	3
How to prepare training hall : administrative and logistic materials	Human resources division	5
Distinction in organization and administration of human resources	Human resources division	5

Speaking and diction skills	Human resources division	5
The foundation of writing an effective job description	Human resources division	5
Evaluate performance and identify training needs	Human resources division	5
Risk management	Quality assurance division	1
An audit of financial statement and internal control over financial reporting	Quality assurance division	1
Modern international standards of supervision an internal audit cycle	Quality assurance division	1
Excellence in the strategic management of the supply and procurement	Purchasing division general secretary division	3
Procurement logistics and supply chain management	Purchasing division	3
Advanced procurement contract management and effective negotiation	Purchasing division general secretary division	4
Leadership -planning and organizational skills of managing emergency operations, rescue and evacuation	Management division	4
Electronic archiving and document management	Management division	4
Fixed asset management	Management division	4
Legal basis for the preparation of contracts and memos and decisions	Legal affairs division	1
Legal translation and writing and techniques of legislative drafting and design contracts	Legal affairs division	1
Executive leadership strategic planning and innovative management goals	General secretary division	2
Erp navision development (reporting and forms)	IT division	5
New approaches to understand costumer value and satisfaction	Customer service department	10
Design, rehabilitation and development of water networks	Engineering and projects dpt	4

Design and rehabilitation of water distribution networks	Engineering and projects dpt	4
Autocad, gis	Engineering and projects dpt	8
Using surveying tools	Engineers and technicians in the engineering and projects department production and waste water treatment department	10
English Language for all levels	All employees	

BEIRUT AND MOUNT LEBANON WATER ESTABLISHMENT

FORECAST OF REQUIRED TRAINING ASSISTANCE IN THE NEXT 2-3 YEARS		
Topic of the Required Assistance (Training)	Position of each WE staff to be Trained	Nr. Of Staff to be Trained
O&M of pumping stations:		
Assistance to build up the standard operation and maintenance procedures (SOMP)		
Training on maintenance in all levels for pumps, motors, generators, panel board, chlorinator		
Management and reporting systems		
Awareness and safety procedures		
The water supply system:		
Water balance		
Sectorisation		
Leak detection		
Non Revenue Water (NRW)		
Flowmeters		
Training of trainers		
Scada system		
ERP system		

FORECAST OF REQUIRED TRAINING ASSISTANCE IN THE NEXT 2-3 YEARS		
Topic of the Required Assistance (Training)	Position of each WE staff to be Trained	Nr. Of Staff to be Trained
Capacity building & training on the new equipment to measure surface & underground water	Head of Water Resource departments	1
	Engineer	2
	Biologist	1
	IT	12

CONTACTS

secretariat@gwpmed.org

www.gwpmed.org/governanceandfinancing