



# WATER REFORM PROGRAMME

TECHNICAL ASSISTANCE TO REFORMS IN THE WATER & WASTEWATER SECTOR IN LEBANON





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## 1. OBJECTIVES AND PILLARS

- **Main objective:** The technical assistance program to reform the water and wastewater sector aims at strengthening the Lebanese stakeholders in their respective functions as service operators (RWEs) and supervisory (MoEW) as well as to support institutional dialogue. It is based on **shifting the paradigm from an “investment-based” approach to a “service-based” approach.**
- **Specific objective:** The specific objective of the program is the implementation of sustainability and financial viability in water and sanitation services of the operators.

### Three pillars of intervention

**Pillar 1:** Support the implementation of priority reforms of the water and wastewater sector and improve the performance and capacities of the Regional Water Establishments (RWEs)

**Pillar 2:** Support the maturation of a selection of priority infrastructure projects

**Pillar 3:** Strengthen institutional dialogue and sectoral coordination

## 2. DESCRIPTION OF ACTIVITIES

### Pillar 1: Support the implementation of water and wastewater sector reform

#### A1: Implement the reform

Support the actors in drafting application decrees and provisions of the Water Code.

#### A2: Carry out an organizational audit of the ministry tutelage functions

Review of texts related to the supervision of RWEs performance, analysis of the management structure/organization charts of the directorates of exploitation within the MoEW, propose reorganization, identification of gaps between management responsibilities and tasks actually accomplished by the teams, participative diagnosis of identified needs in terms of support and capacity building.

#### A3: Define and implement a capacity-building plan for the directorate of exploitation

Based on the diagnosis, drafting a capacity building plan for supervision team within the directorate, which may contain trainings on specific topics (possibly jointly with RWEs officers). Certain tasks relevant to the capacity-building plan may be carried out by LTTA experts as part of their main services. This will be specified in the LTTA's annual action plan.

#### A4: Draft and establish standardized reporting templates for the RWEs and for the MoEW annual report

Analysis of existing documents and while integrating new indicators introduced by the Water Code, production of adapted and standardized reporting templates for RWEs, production of an annual activity reporting template for MoEW, drafting or improvement of the sectoral monitoring tool led by MoEW. RWEs reporting to MoEW could be done via an online platform allowing for real-time monitoring of indicators filled by the RWEs.

Define the road maps / action plans (article pertinent to performance in the Water Code) for the RWEs / Implementation of results-based management:

- definition of performance indicators based on the diagnosis of RWEs (see A9)



- definition of short, medium and long-term RWEs road maps through a participative approach,
- Definition of annual action plans with SMART objectives and measurable indicators in coherence with the results-based management approach.

#### **A5: Support the structuring of management models of new infrastructure**

Implement an integration framework of operators during the phase of projects appraisal (anticipation of OPEX) and the procurement modalities to RWEs for operation and maintenance, according to different management models. The idea is to implement a legal and strategic reflection framework between the stakeholders along the infrastructure management modalities planning as far upstream as possible in order to foresee the transfer of a sustainable operation and maintenance operation to the water establishments. This would implicate an estimation of the operation and maintenance costs for each investment earlier in the appraisal process, in close collaboration with the establishments. In this context and during the planning of the investments, water and wastewater users' connection to the upcoming infrastructure will be evaluated as well and the role of RWEs in managing and foreseeing this aspect.

#### **A6: Carry out CAPEX and OPEX studies and a study focused on energy costs of investments**

Carry out a study defining the favorable conditions to encourage investments in the sector (notably for CAPEX and OPEX) and the definition of a short, medium and long-term road map.

Define and adopt a road map for reducing energy costs, specific to the Lebanese context. This road map will have an economic dimension (reduction of RWEs operating costs linked to energy) and an environmental dimension (reduction of water sector's carbon footprint).

#### **A7: Support MoEW in updating planning tools**

Carry out updates / development of planning tools. If necessary support MoEW to improve its capacity to measure, model and follow the national evolution of water resources. The TA team may produce a road map, which MoEW can share and discuss with the donors.

#### **A8: Support MoEW in complementary studies identified in the update of the national strategy**

The national sector strategy identified complementary studies deemed necessary for its accomplishment. The project could engage in a selection of studies and produce a medium and long-term road map accounting for the integration of CIP projects as well as investments identified in the national strategy.

The selection of complementary studies will be validated and prioritized in the action plan at the level of the Steering Committee. The studies identified at this stage include the preparation of watershed plans, industrial wastewater treatment processes, flood risk management, water security and climate change, etc.

#### **A9: Carry out an initial diagnosis at RWEs**

Carry out technical, financial and organizational performance diagnosis at the RWEs. This diagnosis will support the process of establishing performance-based contracts.

#### **A10: Draft and implement a capacity building plan of RWEs**

Based on the diagnosis and the mapping of capacity building activities in the scope of projects completed, ongoing and planned, a capacity-building plan will be tailored for each water establishment. This plan will be transmitted and implemented in coordination with donors and actors of the sector.

#### **A11: Capitalize on activities / experience sharing linked to operation and maintenance of services**

Analyze previous interventions and identify success stories related to O&M services. The project will ensure coordination with other actors willing to implement activities to replicate these previous successful actions with the RWEs. This activity could also support MoEW and WEs in coordinating an



approach to be adopted for the implementation of pilot initiatives funded by other donors and ensure the application of best practices gained from the experience in previous initiatives.

#### **A12: Support the setup of delegated management modalities**

Support the structuring of delegated management (performance-based contracts and supervision by the RWEs). Collaboration between RWEs and municipalities will also be studied (formalization of relevant agreements and public-public partnerships) as well as the implication of the private sector.

#### **A13: Conduct a tariff study in each region / Lead reflection between establishments and with MoEW**

Carry out regional tariff studies, following the outcome of a detailed tariff strategy in order to reach a financial equilibrium on the long run.

#### **A14: Develop the performance framework of RWEs**

On the basis of the diagnosis carried out (A9) and the results of the tariff studies, a road map on performance framework shall be elaborated and implemented between the RWEs and the MoEW.

#### **A15: Strengthen regional planning tools**

Standardize planning tools for all water establishments. Update and/or produce new water, sanitation and irrigation master plans at regional scales for the four establishments, if need be.

### **Pillar 2: Maturation of projects**

#### **A16: Draft a project analysis grid**

Draft an analysis grid for investment projects and define a selection of criteria to be agreed upon among the actors. It will then be necessary to define reliable sustainability criteria for investments and real and lasting access to the service. The degree of priority and the “value for money” efficiency aspect will also be an integral part of the analysis grid, as well as the environmental impact of proposed technologies (“green grade”). This mechanism will be based on a multi-actor reflection process in order to ensure everyone’s comprehension of the projects analysis grid.

#### **A17: Analyze the projects**

Review and classify the projects identified in the CIP, the national strategy and the regional master plans with the analysis grid. This exercise will take into account the identified investments in the updated national water and wastewater strategy.

#### **A18: Organize and set-up a multi-actor reflection process centered on reviewed projects**

Share and debate the analytical review of projects with sectoral actors, notably Technical and Financial Partners (TFPs).

#### **A19: Select priority projects and conduct feasibility studies**

Conduct feasibility studies on a selection of priority projects.

### **Pillar 3: Institutional coordination and dialogue**

#### **A20: Develop sectoral coordination tools**

Set-up / consolidate a sectoral monitoring tool and organize a quarterly sectoral review for sharing sector monitoring data, progress and gaps/needs. The point is not to develop a complete and exhaustive review, but to launch a dynamic to reinforce tools of regional and national sectoral monitoring.



#### **A21: Support the consultation framework between MoEW and the establishments**

Support the Ministry and the establishments in leading periodic meetings (allowing for the progressive building of a performance monitoring mechanism). These meetings shall be supported by the Technical Assistance Team.

#### **A22: Support water establishments in creating and leading a dialogue group**

Set-up quarterly meetings amongst RWEs in order to discuss practices, problems encountered, needs and collective approaches, etc. These meetings shall be supported by the Technical Assistance Team.

#### **A23: Strengthen the MoEW/Donors/RWEs concertation framework**

Use the existing MoEW/donor Group to strengthen coordination mechanisms between donors-TFPs. MoEW will be supported by the Technical Assistance Team to plan and follow up on these periodic meetings.

#### **A24: Strengthen the coordination / investment planning MoEW/RWEs/CDR**

This concerns creating a space for dialogue and reinforced coordination between the establishments and the MoEW sectoral planner, and the CDR project manager. The idea is to support establishments in the monitoring of projects implemented within their regions.

#### **A25: Set-up The Water and Wastewater Observatory**

An observatory will animate debates and conduct sectoral research. It shall make sectoral data and notes available to feed the debates. This debate can sustain strategic works led by the Ministry and the RWEs.

#### **A26: Establish national and regional workshops**

Organize one national workshop per year and at least 4 regional workshops.

#### **A27&28: Strengthen digital communication tools and increase sector visibility**

Establish national and regional awareness campaigns and support sectoral communication.

#### **A29: Legal implementation of the new agreed upon MoEW structure**

Draft the legal bylaws to implement the new agreed upon tutelage function.

#### **A30: Legal implementation of the new agreed upon WEs structure**

Draft the legal bylaws and decrees of the new agreed upon organizational reform of the WEs structure.

#### **A31: Conduct customers census studies in the view of addressing NRW and water tariff**

Assess the current situation regarding customers' census and coordinate with the WEs to identify priority pilot areas for customers' census.

#### **A32: Evaluating District Metering Areas (DMA) in the view of addressing NRW and water tariff**

Assess bulk water metering status and requirements and conduct a prefeasibility study to choose pilot areas based on specific set of criteria.

#### **A33: Digitalization**

Conduct the feasibility study of digitalization for the SLWE.

#### **A34: Roadmap to Recovery of the Water Sector in Lebanon**

Draft a recovery plan for the water and wastewater sector in Lebanon.



	Pillar 1 Support the implementation of reforms	Pillar 2 Maturation of projects	Pillar 3 Institutional coordination and dialogue
Main Activities Under the Programme	<p><b>Axis 1: Support to MoEW</b></p> <p><b>A1:</b> Water code review and preparation of application decrees</p> <p><b>A2:</b> Carry out an organizational audit of the ministry tutelage functions</p> <p><b>A3:</b> Define and implement a capacity-building plan for the directorate of Exploitation</p> <p><b>A4:</b> Draft and establish standardized reporting templates for the WEs and for the MoEW annual report</p> <p><b>A5:</b> Support the structuring of management models of new infrastructure</p> <p><b>A6:</b> OPEX / CAPEX studies</p> <p><b>A7:</b> Support MoEW in updating a planning tool</p> <p><b>A8:</b> Support MoEW in complementary studies identified in the update of the national strategy</p> <p><b>Axis 2: Support to the WEs</b></p> <p><b>A9:</b> Carry out an initial diagnosis at Wes</p> <p><b>A10:</b> Draft and implement a capacity building plan of Wes</p> <p><b>A11:</b> Capitalize on activities / experience sharing linked to O&amp;M</p> <p><b>A12:</b> Support the setup of delegated management modalities</p> <p><b>A13:</b> Conduct tariff studies for the WEs</p> <p><b>A14:</b> Set up KPI for the Wes</p> <p><b>A15:</b> Strengthen regional planning tools</p>	<p><b>A16:</b> Draft a project analysis grid</p> <p><b>A17:</b> Reassess the pertinence of CIP projects and set up priority list based on revised Master Plans, NWSS 2020 criteria, and the agreed upon analysis grid</p> <p><b>A18:</b> Organize and set-up a multi-actor reflection process centered on reviewed projects</p> <p><b>A19:</b> Select priority projects and conduct feasibility studies</p>	<p><b>Axis 1: Institutional coordination</b></p> <p><b>A20:</b> Develop sectoral coordination tools</p> <p><b>A21:</b> Support the consultation framework between MoEW and the establishments</p> <p><b>A22:</b> Support water establishments in creating and leading a dialogue group</p> <p><b>A23:</b> Strengthen the MoEW/Donors/RWEs concertation framework</p> <p><b>A24:</b> Strengthen the coordination / investment planning MoEW/RWEs/CDR</p> <p><b>Axis 2: Institutional dialogue</b></p> <p><b>A25:</b> Set up the Water and Wastewater observatory (under restructuring)</p> <p><b>A26:</b> Establish national and regional workshops</p> <p><b>A27:</b> Launch communication campaigns (national, regional)</p> <p><b>A28:</b> Strengthen establishments' communication in supporting implementation of communication plans and definition of supplementary tools</p> <p><b>New Activities Added</b></p> <p><b>A29:</b> Legal implementation of the new agreed upon MoEW structure</p> <p><b>A30:</b> Legal implementation of the new agreed upon WEs structure</p> <p><b>A31:</b> Conduct customers census studies in the view of addressing NRW and water tariff</p> <p><b>A32:</b> Evaluating District Metering Areas (DMA) in the view of addressing NRW and water tariff</p> <p><b>A33:</b> Digitalization</p> <p><b>A34:</b> Roadmap to Recovery of the Water Sector in Lebanon</p>



### 3. LOGICAL FRAMEWORK, INDICATORS AND EXPECTED RESULTS

Results		Activities	Indicators
<b>General Objective:</b> The technical assistance Programme to reforms in the water and wastewater sectors aims to strengthen the Lebanese actors in their respective functions as service operators (RWEs) and tutelage (MoEW) as well as to support the institutional dialogue.			
<b>Specific Objective:</b> The specific objective of the project is the implementation of sustainability and financial viability in water and sanitation services of the operators.			
<b>SG1:</b> Support the implementation of water and wastewater sector reform.	<b>R1:</b> Application Decrees and Provisions of the Water Code are drafted and validated.	<b>A1:</b> Support the MoEW in drafting application decrees and provisions of the Water Code.	The full list of necessary decrees and provisions is drafted and validated by the MoEW
		<b>A2:</b> Carry out an organizational audit of the Ministry's tutelage functions	An audit document is available and validated by the MoEW;
	<b>R2:</b> MoEW tutelage capacities are strengthened	<b>A3:</b> define and implement a capacity building plan for the Directorate of Exploitation	The capacity building plan is approved by the MoEW;  The supervision teams within the Directorate are trained and their tutelage capacities are strengthened.
		<b>A4:</b> Draft and establish standardized reporting templates for the RWEs	The annual activity report grids for establishments are drafted and adopted by the Water Establishments





Results		Activities	Indicators
	<b>R3:</b> Economic sustainability of service is strengthened at national level	<b>A5:</b> Support the structuring of management models of new infrastructure	The approach to service management and its economic equilibrium is integrated into the preparation of new infrastructure projects in the sector.
		<b>A6:</b> Carry out CAPEX and OPEX studies and a study focused on energy costs of investments	<p>A study on service management models integrating the costs (specific to the Lebanese Context) is validated by the MoEW.</p> <p>A study on energy costs and suggested roadmap/guidelines to be adopted in the water/wastewater works is validated by the MoEW.</p>
	<b>R4:</b> A strategy and planning tool is completed and partially implemented	<b>A7:</b> Support MoEW in updating a planning tool	At least one basin master plan is available and validated by MoEW.
		<b>A8:</b> Support MoEW in complementary studies identified in the update of the national strategy	<p>The national strategy is complemented by at least two additional studies.</p> <p>Certain strategy recommendations are implemented.</p>



Results	Activities	Indicators	
	<p><b>R5</b> : Operating capacities of Water Establishments are strengthened</p>	<p><b>A9</b> : Carry out an initial diagnosis at RWEs</p>	<p>Diagnosis reports validated by establishments and MoEW</p> <p>Organization of 4 workshops with establishment personnel</p> <p>Organization of a national workshop with sectoral stakeholders</p> <p>Integration of gender into HR policies</p>
		<p><b>A10</b> : Draft and implement a capacity building plan integrating a gender dimension</p>	<p>Plans to strengthen capacities validated by establishments and MoEW</p>
		<p><b>A11</b>: Capitalize on activities / experience sharing linked to operation and maintenance of services</p>	<p>Each establishment has put at least one demonstrative project in place at end of programme according to best practices and procedures.</p>
		<p><b>A12</b>: Support the setup of delegated management modalities</p>	<p>A study has been conducted in at least 3 establishments.</p> <p>Study results were shared with sectoral actors.</p>
<p><b>R6</b>: Tariffs are updated</p>		<p><b>A13</b>: Conduct a tariff study in each region / Lead reflection between establishments and with MoEW</p>	<p>Establishments' tariff strategies over 15 years are available and validated by Establishments and by MoEW.</p>



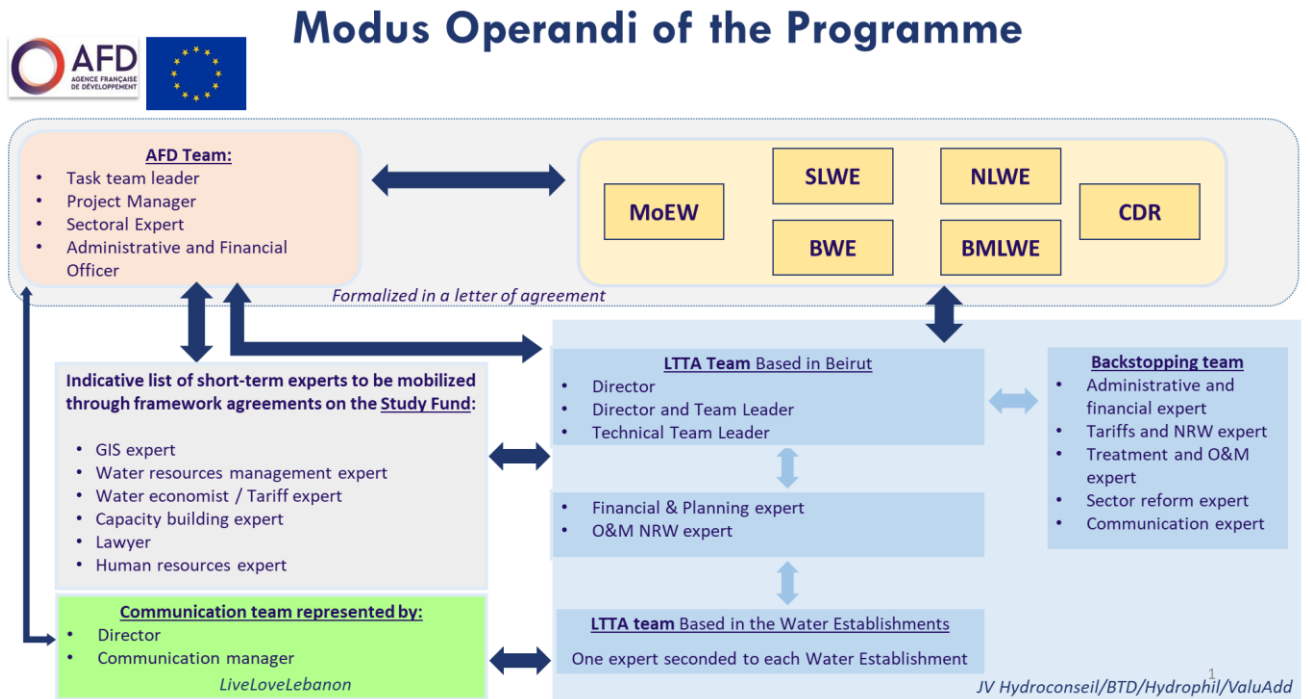
Results		Activities	Indicators
	<b>R7:</b> A performance framework of the RWEs is developed	<b>A14:</b> Develop the performance framework of RWEs	A performance indicator grid (progressive) is made available for actors by year 3 of the Programme.  Establishments / MoEW performance frameworks are validated at end of the Programme.
	<b>R8:</b> Regional planning tools are strengthened	<b>A15:</b> Strengthen Regional Planning Tools	Establishments and MoEW have validated standardized planning grids.  Master plans and Regional Plans were updated and/or validated.
<b>SG2:</b> Maturation of Projects	<b>R9:</b> An interpretation of the prioritized projects is defined and shared with stakeholders	<b>A16:</b> Draft a project analysis grid	At least 3 projects have technical maturity at the end of the implementation period of the Programme
		<b>A17:</b> Analyse the projects sustainability	
	<b>R10:</b> Projects are revisited and prioritization is shared with stakeholders	<b>A18:</b> Organize and set-up a multi-actor reflection process centred on reviewed projects	
		<b>A19:</b> Select priority projects and conduct feasibility studies	
<b>SG3:</b> Institutional coordination and dialogue	<b>R11:</b> Sectoral coordination is reinforced	<b>A20:</b> Develop sectoral coordination tools	MoEW has a functional database which is progressively built up year after year
		<b>A21:</b> Support the consultation framework between MoEW and the establishments	Periodic meetings to be held between WEs and MoEW.



Results		Activities	Indicators
		A22: Support WEs in creating and leading a dialogue group	Quarterly meetings to be held between the four establishments
		A23: Strengthen the MoEW/ Donors/ RWEs concertation framework	<p>Leading at least 2 Water group meetings per year around one of the topics linked to the project (MEW, RWEs, TFPs, NGOs)</p> <p>Presentation of the Programme’s evolution against milestones to the MoEW-led coordination meetings.</p>
		A24: Strengthen the coordination / investments MoEW/RWEs/CDR	Quarterly meeting held between CDR, MoEW and the RWEs on ongoing and planned projects
	R12: Sectoral communication is strengthened	A25: Set up the Water and Wastewater observatory	<p>The observatory is known to actors who trust it to disseminate knowledge, ensure accountability;</p> <p>At least 2 public debate sessions will be held by the Observatory</p>
		A26: Establish national and regional workshops	<p>At least one national workshop held per year</p> <p>One regional workshop held in each of the 4 establishment regions</p>
		A27 & A28: Strengthen digital communication tools and increase sector visibility	Launch of at least one information campaign at the level of each establishment and one national campaign for the duration of the Programme



#### 4. MODUS OPERANDI OF THE PROJECT



**Legend:**

ACRONYM	DESCRIPTION
<b>BWE</b>	Bekaa Water Establishment in charge of the water and wastewater services in the Bekaa
<b>BMLWE</b>	Beirut and Mount Lebanon Water Establishment in charge of the water and wastewater services in Beirut and Mount Lebanon
<b>CDR</b>	Council for Development and Reconstruction
<b>GIS</b>	Geographic Information System
<b>HR</b>	Human Resources
<b>IWRM</b>	Integrated Water Resources Management
<b>JV</b>	Joint-Venture
<b>LTTA</b>	Long-Term Technical Assistance
<b>MoEW</b>	Ministry of Energy and Water
<b>NLWE</b>	North Lebanon Water Establishment in charge of the water and wastewater services in North Lebanon
<b>NRW</b>	Non-Revenue Water
<b>O&amp;M</b>	Operation & Maintenance
<b>SLWE</b>	South Lebanon Water Establishment in charge of the water and wastewater services in South Lebanon