



# Water and sanitation services in Lebanon



# Minutes of the workshop

Wednesday, 4th of April 2018 The Rhone Mediterranean Corsica Agency 14 Jonas SALK Street, Lyon, France





## **OBJECTIVES**

Through concrete illustrations of problems faced by Lebanese Municipalities, cooperation organizations and NGOs aimed to:

- Make an assessment of water and sanitation services in Lebanon;
- Have a better understanding of the institutional context of the water and sanitation sector in Lebanon;
- Improve understanding of the issues faced by Lebanese actors;
- Know the solutions currently implemented in Lebanon, the conditions of their implementation, their advantages and limitations.

#### **PROGRAM**

11:00am - Reception and introduction to the workshop *Mr. Rémi Touron, The Rhone Mediterranean Corsica Agency* 

11:15am - Presentation of the Lebanese Water Actors Platform (LEWAP) Ms. Claire Papin-Stammose, Project officer - Water and Sanitation in Lebanon

11:30am – Water quality monitoring and existing solutions currently implemented Mr. Fadi Doumit, Head of Water Resources Department, Litani River Authority

12:00am - Sanitation issues of the Municipality of Boudaï

Mr. Mohamad Chamas, Mayor of Boudaï

Ms. Rola Afyouni, Financial Engineering Project Manager, Communauté de Communes de la Vallée de l'Hérault (CCVH)

Mr. Jérôme Dubost, Head of water and environment, CCVH

2:00pm - Sanitation in the Caza of Bcharreh

Mr. Alain Tidière, Director of Corail Association

Mr. Pascal Molle, Researcher - Sanitation in small and medium size communities, IRSTEA

2:40pm - With the current: the sustainable management of water resources to support local development

Ms. Catherine Luciani, Director of the Department of Sustainable Development, Department Aude

Mr. Ghassan Tayoun, Deputy Mayor of Zgharta-Ehden Municipality

Mr. Gaëtan Deffontaines, Business Manager, BRL-Exploitation

3:20pm - Promote coordination for sustainable water resources management in the Municipality of Zahle

Ms. Joëlle Puig, Geographer Consultant, Project Manager CPIE APIEU

3:50pm - Overview of debates and key points

Mr. Vincent Dussaux, Director of Projects, Programme Solidarité Eau

#### LIST OF PARTICIPANTS

## RECEPTION AND INTRODUCTION TO THE WORKSHOP

## Mr. Rémi Touron, Project Officer of projects and international cooperation, AERMC

In 2005, the Oudin-Santini law allowed water authorities and agencies to mobilize up to 1% of their water and sanitation budget for international cooperation actions. For the AERMC, this represents a potential of 5 million Euros per year. In 2016, the Agency raised 4.5 million Euros for international cooperation actions.

At the international level, the actions of the Agency are divided into 2 main types:

- Institutional support mainly towards the countries of the Mediterranean basin;
- Support for cooperation projects led by local authorities (decentralized cooperation) or associations of its basin.

The Agency is supporting projects implemented in Lebanon as the LEWAP platform facilitated by pS-Eau. Therefore, the Agency is renewing its commitment to facilitate exchanges, create synergies between stakeholders, and improve practices.

#### PRESENTATION OF THE LEBANESE WATER ACTORS PLATFORM (LEWAP)

## Ms. Claire Papin-Stammose, Project officer - Water and Sanitation in Lebanon

Since 2013, pS-Eau intervenes in the water and sanitation sector in Lebanon. Between 2013 and 2016, pS-Eau supported the cooperation project of SIAAP by capitalizing on lessons and facilitating an exchange network between Lebanese and French actors.

These first activities enabled us to notice important needs in terms of access to information and dialogue between actors of the sector. This analysis was confirmed by a diagnosis carried out with many actors in order to better understand their needs.

Building on its own experience in facilitating networks, pS-Eau initiated in 2017, an information and exchange platform for the water and sanitation actors in Lebanon.

Available in French and English, LEWAP is open to all the actors involved in the Lebanese water sector. Several activities are implemented in France and Lebanon:

- Carrying out a watch on the sector, up-coming events, current projects, last publications and calls (news and newsletter);
- Facilitating exchanges and dialogues in Lebanon and France;
- Organization of trainings in partnership with actors of the water sector (CEWAS, IRSTEA...);
- Organization of technical field visits in France and Lebanon;
- Supporting cooperation projects;
- Assessing the needs of Lebanese actors and connecting them with French partners;
- Collecting and sharing information through a database containing details on projects (<u>37</u>), organizations (<u>309</u>), actors (<u>358</u>) and documents (<u>148</u>) of the sector;
- Publication of popularization and synthesis tools (country sheet).

You are kindly invited to update us on your on-going activities and latest publications in order to share it on the platform!

# WATER QUALITY MONITORING AND EXISTING SOLUTIONS CURRENTLY IMPLEMENTED

Mr. Fadi Doumit, Head of Water Resources Department, Litani River Authority

This presentation focus on:

- Hydro-geological characteristics of the Litani;
- History of the creation of the Litani River Authority in 1954;
- Current missions of the Litani River Authority (irrigation, hydro-electric production, monitoring of quantity and quality of resources, wastewater treatment);
- Evolution of the Litani River Authority and planned reforms;
- Completed projects (Qaraoun Dam, Conveyor 800, lagooning);
- Current and future projects (telemetry pilot, monitoring and treatment of water pollution in Qaraoun Lake with Dutch cooperation).

Download the presentation

## SANITATION ISSUES OF THE MUNICIPALITY OF BOUDAÏ

Mr. Mohamad Chamas, Mayor of Boudaï

The key points of the speech:

- Strategic territory with the source of the Litani River;
- Absence of wastewater treatment and infiltration of wastewater in groundwater;
- Environmental health issues of the population;
- Need for a technical support.

#### Download the presentation (French)

Mr. Jérôme Dubost, Head of water and environment, Communauté de Communes de la Vallée de l'Hérault (CCVH)

As for Boudaï, the climate of the CCVH is a Mediterranean one. The population of the CCVH is 36,000 inhabitants residing in 28 different municipalities.

Since the 1<sup>st</sup> of January 2018, CCVH is in charge of water and sanitation services after transferring legal competencies from the 28 municipalities. This transfer went along with a reflection on the kind of governance for water and sanitation services. A public company has been created with an operating council consisting of mayors. This council participates in the definition of the statutes of the public company, the regulation of the service, and the setting of a shared price for the entirety of the territory.

The territory has three water sources that are vulnerable and must be secured. One of the priority catchments suffers from pollution due to agricultural activity. The territory has 29 wastewater treatment plants (WWTP). The purification processes are very diverse. Significant investments are required to re-new infrastructures which are degraded.

#### Ms. Rola Afyouni, Financial Engineering Project Manager, CCVH

#### Why get involved?

- An opportunity of connection with the Municipality of Boudaï through pS-Eau;
- Similarities between the two territories;
- Mutual learning and perspective analysis on the issues of our territories;
- Mobilizing and enhancing the expertise of a local company.

Decentralized cooperation is a historical commitment of CCVH which is currently implementing projects in China, Morocco, and Lebanon. The engineering mobilization of our territory is a guarantee of collective benefit. The CCVH is involved in Lebanon since 2011 with projects related to the development of a touristic strategy (Byblos) and local development (Union of Municipalities of Upper Jord Bhamdoun).

The project, with the municipality of Boudaï, is related to water and sanitation services. A diagnosis will permit to develop an action plan. A coordination will be done between users, farmers, municipality, water establishment, the Litani River Authority and the Ministry of Water and Energy.

The project will intend to mobilize local expertise by involving Lebanese consulting engineers. A Lebanese consultant, holding a PhD in ground water resources management, will be in charge of the coordination of the project.

After this workshop, technical visits of an activated sludge treatment plant, reed bed filters and lagooning will be organized on the territory of CCVH for the Lebanese delegation.

## SANITATION IN THE CAZA OF BCHARREH

#### Mr. Alain Tidière, Director of Corail Association

The main issues of the sanitation sector are:

- Costs of operation and maintenance not taken into account;
- Overlapping of competences between institutional actors;
- Purchase of the land.

#### Lessons learned:

- Necessity of having a coordination between actors;
- Long term cooperation required for reaching to implement master plan for sanitation;
- Importance of the involvement and concerns of local authorities;
- Complementarity between decentralized cooperation projects and projects implemented by AFD.

<u>Download the presentation (French)</u> <u>Project Sheet Elaboration of a river contract</u> <u>Project Sheet Pilot of Reed bed treatment plant</u>

#### Mr. Pascal Molle, IRSTEA, Researcher Natural Waste Water Treatment

IRSTEA is supporting AFD for the implementation of a master plan for sanitation, including 15 reed bed filters, by developing research activities and facilitating knowledge transfer to local actors. Mr. Molle observed that a comparison between the costs of operation and maintenance is missing in most of the preliminary studies for treatment plant station.

# WITH THE CURRENT: THE SUSTAINABLE MANAGEMENT OF WATER RESOURCES TO SUPPORT THE LOCAL DEVELOPMENT

#### Mr. Ghassan Tayoun, Deputy Mayor of Zgharta-Ehden Municipality

The Municipality aims, in partnership with Aude Department, to set up sustainable water management on its territory. Sustainable management will act as a lever for local development through the enhancement of natural and local heritage and sustainable irrigation.

Multi-sectoral approach should be developed for territories. The implementation of this approach must be done in coordination with all the competent authorities. Municipalities are a relevant tier for this approach because there is de-facto decentralization in Lebanon. In this context, decentralized cooperation is a valuable asset.

## Mr. Gaëtan Deffontaines, Business Manager, BRL-Exploitation

Introduction to the context:

- Demographic and administrative characteristics of the territory;
- Hydrogeological context (2 catchment basins);
- Current state of the water services (absence of water meters, low recovery rate by the Water Establishment of North Lebanon, lack of maintenance of infrastructures, illegal connections, use of drinking water for irrigation);
- Current state of the sanitation services (operating costs of WWTPs, discharges into the natural environment, pollution of water resources).

#### Lessons:

- Taking into account cost of operation and maintenance of WWTP;
- Importance of having a coordination and a lead by an actor;
- Taking into consideration all the territory and its characteristics;
- Necessity to implement awareness activities.

#### Actions plan:

- Activities to be implemented quickly (rehabilitation of two catchments, measuring water production and consumption and protecting catchment area);
- Develop a long-term management strategy (master plan for sanitation to improve resource quality and ensure sustainable management services).

## Download the presentation (in French)

Ms. Catherine Luciani, Director of the Department of Sustainable Development, Department Aude Why the Department decided to be involved?

- Share our expertise on enhancing heritage with an economic development link to the certification label "Pays Cathare";
- A rich hydraulic heritage and innovative infrastructures (Canal du Midi ...);
- Territorial development linked to water and a hydraulic scheme to mobilize Pyrenees/Massif Central water resources;
- Similar constraints for climate change and flood and drought risks;
- Available Expertise of resource management at department level;
- A pride, of one of the poorest departments in France, to export its know-how and enhance its expertise on common issues!

# PROMOTE COORDINATION FOR SUSTAINABLE WATER RESOURCES MANAGEMENT IN THE MUNICIPALITY OF ZAHLE

#### Ms. Joëlle Puig, Geographer Consultant, Project Manager CPIE APIEU

#### Observations:

- Unclear institutional framework;
- Deficit of legitimacy of the Water Establishments;
- Potentially conflicting relationships between Water Establishments and Municipalities;
- No planning document or lack of reliability (Master Plan);
- Low sharing of information;
- Sectoral and spatial fragmentation of the sector and therefore compartmental vision.

#### The activities proposed under the project:

- Establishment of bilateral coordination between actors;
- Collaborative platform to establish a common database on resource degradation.

#### Download the presentation (in French)

## OVERVIEW OF DEBATES AND KEY POINTS

- The institutional framework of the water and sanitation sector in Lebanon is characterized by a plurality of actors whose authorities and areas of intervention overlap. The absence of a clear division of authorities is a hindrance to the proper implementation of projects. The creation of coordination bodies appears as a pre-requisite for the success of projects.
- There is no concerted strategy between the different actors to have sustainable management of water resources. This lack of strategic vision leads to the implementation of isolated initiatives. The multiplicity of these initiatives complicates the understanding of the sector, the needs and the actors involved.
- Access to information is fragmented due to insufficient collection and monitoring of data. These data are collected by the plurality of actors involved in the sector and there is no platform for sharing data.
- Lebanese institutions suffer from a deficit of legitimacy, where they do not have a power of coercion. Therefore, it is necessary to rely on awareness tools to improve the practices of all.
- There is a need to promote a territorial approach and go beyond sectoral approaches. This approach must facilitate local development with involvement of all actors.
- In Lebanon, citizens turn first to the municipality. In this context, decentralized cooperation
  appears as an essential support tool facilitating the sharing of experience and know-how.
  Due to its long-term nature, decentralized cooperation promotes trust between project
  partners and stakeholders. In France, it contributes to the influence of our territories by
  mobilizing the expertise of communities and local actors.
- France and Lebanon have similar problems in their territories in terms of climate, availability of water resources, challenges to climate change. There is a common interest in sharing practices, pooling tools, and lessons.
- Decentralized cooperation between Lebanese and French local authorities constitutes, in this context, a real opportunity to concretize these exchanges.

Concluding video produced by the Rhone Mediterranean Corsica Agency: <u>Qa chauffe, partageons</u> <u>I'eau! (in French)</u>

# LIST OF PARTICIPANTS

Name	Organization	Position	e-mail / phone
LESAGE Geoffroy	University of Montpellier / Institut Européen des Membranes	Researcher	geoffroy.lesage@umontpellier.fr
ZAVISKA François	University of Montpellier / Institut Européen des Membranes	Researcher	francois.zaviska@umontpellier.fr
ALLES Christèle	University of Nantes	Geographer	christele.alles@univ-nantes.fr
PUIG Joëlle	APIEU CPIE	Geographer Consultant, Project Manager CPIE APIEU	joellepuig@free.fr
CHAMAS Mohamed	Municipality of Boudaï Allak	Mayor	+961 3 839 984
DUBOST Jérôme	Communauté de Communes Vallée de l'Hérault	Head of water and environment	Jerome.DUBOST@cc-vallee-herault.fr
AFYOUNI Rola	Communauté de Communes Vallée de l'Hérault	Financial Engineering Project Manager	Rola.afyouni@cc-valle-herault.fr
COSTE Michel	Pure environnement	Director	m.coste@pure-environnement.com
TAYOUN Ghassan	Municipality of Zgharta-Ehden	Deputy Mayor	ghtayoun@gmail.com +961 76 111 520
LUCIANI Catherine	Conseil Département de l'Aude	Director of the Departement of Sustainable development	catherine.luciani@aude.fr
DEFFONTAINES Gaëtan	BRL Exploitation	Business Manager	Gaetan.Deffontaines@brl.fr
TOURLONNIAS Béatrice	pS-Eau	Niger and Burkina Faso networks	tourlonnias@pseau.org
TATAY Aurélien	AgroParisTech	Student	Aurélien.tatay@gmail.com
DOUMIT Fadi	Litani River Authority	Head of Water Resources Department	fadoumit@gmail.com +961 3 447 939
TOURON Remi	Rhone Mediterranean Corsica Agency	Project Officer projects and international cooperat	remi.touron@eaurmc.fr +336 65 67 12 85
CLEMENT Fabien	Ecobird	Director	f.clement@ecobird.fr
MOLLE Pascal	IRSTEA	Researcher Natural Waste Water Treatment	pascal.molle@irstea.fr
MOUTON Philippe	pS-Eau	Director of the agency Lyon-Mediterranean / network Benin and Togo	mouton@pseau.org
DUSSAUX Vincent	pS-Eau	Director of Projects/ Lebanon and Madagascar network	Dussaux@pseau.org
TIDIERE Alain	Corail	Director	a.tidiere@corail-developpement.org
PAPIN-STAMMOSE Claire	pS-Eau	Project officer Water and Sanitation in Lebanon	Papin-stammose@pseau.org