

Potable Water Supply



General overview of the sector

By the end of the Lebanese war, potable water installations were limited to half completed networks in main cities and smaller networks in the rest of the regions. The inadequacy of this service began to show, accompanied by the aggravation of the underground and surface water pollution problem as a result of random wastewater infrastructure, thus threatening the environment and citizen's health.

The insufficient service of potable water has many reasons, mainly:

- 1) An increased demand of water and the inadequacy of existing networks
- 2) Increase in water loss as a result of network deterioration
- 3) Absence of means to protect water from pollution (random wastewater infrastructure, industrial and agricultural pollutants...)
- 4) Insufficiency of consumption in both water and wastewater sectors, i.e. scant investment necessary to improve and modernize installations and developing them to the required service and environmental levels.
- 5) Non development of an adequate administrative and executive structure in the sector to accompany the urgent increasing needs for potable water service and wastewater and the application of new methods adopted in the administration and in modern technologies of water purification.

To put up with such a difficult reality, the Lebanese government started in 1992 to act in several fields:

- 1) Execution of urgent rehabilitation activities for existing equipments relative to water sources and other networks and pumping and purification stations, and solving all existing or upcoming problems.
- 2) Completion, expansion and rehabilitation of networks according to needs.
- 3) Development and increase in water sources and limiting the water comedown and thus increase nutrition average.

In other words, this sectoral action plan aims at completing rehabilitation and expansion of potable water in all Lebanese regions and increase water sources to put an end to the deficit expected and that through large projects like building dams and mountain lakes

However, on the institutional level, the promulgation of Law 221/2000 was an essential step towards restructuring and modernizing both water and wastewater sectors; as it determined the water public properties (surface and ground) and assigned water administration (potable water, irrigation, wastewater) to 4 public institutions (excluding the Litani river which remained under the authority of the National authority for Nahr al-Litani to exploit its water for irrigation in South Lebanon and West Bekaa) into which it

integrated all water departments, under the tutelage authority of the Ministry of Energy and Water.

In 2001, boards of administration for water institutions were appointed. In 2005, new regulatory and structural decrees were issued and work started on their application, in order to reach many objectives mainly rehabilitating and improving the service of these institutions, the expansion of coverage and the maintenance of administrative stability and financial equilibrium of these institutions.

In parallel with the aim of the government to involve the private sector in the management of these establishments, the Ministry of Energy and Water commissioned a French company to study the ways for the private sector to participate in the management of Beirut and Mount Lebanon Water Establishment. Furthermore, the Ministry authorized the CDR to award contracts for the management of the other regional water establishments.

Main achievements in the sector (1992-2008)

At the end of the civil war in Lebanon, the water projects implemented by the CDR aimed to fulfill national objectives; they included:

-Emergency rehabilitation program for water authorities (National Emergency Reconstruction Program – NERP – first year) At a cost of US\$ 60 million, financed by the World Bank and the European Investment Bank, the program aimed at the

rehabilitation of networks and equipment of potable water supplies for 19 potable water authorities.

- Rehabilitation and expansion of potable water treatment plants, pumping and chlorination stations in the regions: The program covered projects for the rehabilitation and expansion of seven main potable water treatment plants in Zahle, Kfar Halda, Tripoli, Jbeil, Kousba, Ras el Ain and al-Bass (Sour). It also covered rehabilitation of 200 pumping stations located in all Lebanese regions. The cost of this program started in August 1996, amounted to approximately US\$ 54 million and was funded by the financial French-Lebanese Protocol.

- Technical assistance to the Ministry of Energy and Water: A technical assistance project of 30 million FF, funded by the financial French-Lebanese Protocol was completed. Under this program assistance was provided to the Ministry of Energy and Water and to major water authorities in the form of capacity building, institutional development and supply of necessary equipment.

In parallel with the beginning of execution of these programs at the national level, the CDR focused on the development of water treatment plants in all Lebanese regions. These projects are detailed below according to the distribution of governorates, as follows:

Greater Beirut area

NERP: Several contracts have been awarded regarding the rehabilitation and construction of

potable water supply systems in the Greater Beirut area, for a total cost of US\$ 45 million, financed by Kuwaiti Fund for Arab Economic Development – KFAED. These contracts included the following works:

- * Rehabilitation of water sources, such as Qashkoush and Ain al Delbe springs
- * Rehabilitation of Daychounieh and Hazmieh potable water treatment plants
- * Rehabilitation and construction of potable water supply and distribution networks in the Greater Beirut area.

Expansion of Dbayeh potable water treatment plant (First phase): the capacity of Dbayeh potable water treatment plant has been increased to 43,0000 m³ per day. This project was financed by the Italian-Lebanese Protocol, with a total amount of US\$ 5,7 million. In addition to these projects, and within the framework of the Beirut infrastructure rehabilitation, the water supply and distribution networks were rehabilitated and upgraded in streets covered by this project.

Bekaa and Baalback Hermel Governorates:

- **Baalback-Nabi Sheet potable water supply and Baalback wastewater network:** the contract amounting to US\$ 32 million was financed by the World Bank. By virtue of this project, the rehabilitation of potable water reservoirs, pumping stations and installation of distribution pipes were completed.
- **Baalbeck-Nabi Sheet potable**

water domestic connections and additional distribution lines (first phase): the contract amounts to US\$ 1,273,000 was financed by the World Bank.

- **Yammouneh potable water supply:** the contract amounts to US\$ 11.9 and was financed by the Islamic Development Bank (IDB). This project includes the construction of a dam for capturing of the Yammouneh spring water and installation of 76 kms long of water supply pipes, 246 kms long of water distribution pipes, and construction of 23 new water reservoirs and two artesian wells.

- **Ouyoun Orghosh potable water supply:** the contract amounts to US\$ 7.8 million financed by IDB. This project includes the installation of pipes for the supply of water from Qabua and Shemali springs, 72 kms of supply pipes,

110 kms of distribution networks and construction of 18 new water reservoirs.

- **Installation of potable water conveyor lines to al-Bustan and al-Harf from spring waters of Nassara and Harik:** the contract amounts to US\$ 2 million and was funded by the Kuwaiti Fund.

Al-Yammouneh infrastructure: this project includes the construction of potable water supply and wastewater networks, in addition to a wastewater treatment plant in al-Yammouneh. The works amount to US\$ 3.4 million financed by the IDB.

Shmistar potable water supply: this project was estimated at approximately US\$ 4.2 million, aiming to provide potable water to Shmistar region and its surroundings.

Akkar Governorate

- **Potable water supply network for Kobayat Water Authority and Akkar Wastewater Network:** the contract amounts to US\$ 14.9 million, financed by the European Investment Bank.

- **Potable water supply network for some villages in Akkar provided from wells:** the contract amounts to US\$ 4 million, financed through a grant from the Kingdom of Saudia Arabia.

- **Akroum and Kfartoun potable water supply:** the contract value was of US\$ 6 million, financed by the Saudi Fund for Development.

- **Akkar al-Atika water supply:** this project aims at supplying Akkar al-Atika and neighboring regions with potable water. The value of works is estimated at



Construction of a Water dam - Brissa (North Governorate)

approximately US\$ 6,65 million.

- Installation of potable water supply for Beit Mallat and surrounding villages in Akkar:

the project covers the installation of reservoirs, potable water supply pipes and pumping stations. The value of the contract reached approximately US\$ 19 million, jointly funded by the IBD and OPEC International Development Fund.

- Execution of works for Ain Yacoub potable water supply: the contract amounts to US\$ 5.2 million funded by the Saudi Fund for Development.

North Governorate

- Installation of potable water supply networks for Tripoli Water Authority and Tripoli wastewater networks: the contract amounts to US\$ 34 million, financed by the European Investment Bank. Works were expanded to include construction of potable water reservoirs to meet the needs of the population until the year 2025. The project is currently in operation.

- Installation of potable water supply networks for Batroun Water Authority and some wastewater networks: the contract amounts to US\$ 20.5 million, financed by the European Investment Bank.

- Tripoli Water Authority Management contract: This contract is considered to be part of the Government's efforts to restructure the water sector and to involve the private sector in its operation. The Tripoli Water Authority Management contract

awarded to a French firm reached 8.9 million euro, financed by the French Development Agency. The management contractor is operating and managing Tripoli Water Authority installations and facilities, as well as billing and collection of water fees, in addition to human and financial resources. Furthermore, the management contractor will supervise the rehabilitation of Tripoli water supply network including increasing the capacity of Bahsas water treatment plant from its current capacity of 40000 m³ to 70000m³ per day.

Mount Lebanon Governorate

- Potable water supply networks for Metn and Barouk Water Authorities and Chouf and Metn wastewater network: the contract amounts to US\$ 25 million, financed by the World Bank. The project includes the construction of 22 water reservoirs, installation of conveyor pipes and potable water distribution networks.

- Displaced villages: rehabilitation works and installation of potable water networks in the displaced villages of Baabda, Aley and Chouf districts have been carried out by the Saudi Fund for Development and reached US\$ 7.3 million.

- Nahr Ibrahim water conveyor – Jbeil plant: this project is financed locally and amounts to US\$ 1,928,000.

South & Nabatiyeh Governorates

- Sour potable water supply networks: the value of this contract amounts to US\$ 9.9 million and is financed by the AFESD.

- Sour rural area potable water supply network: the value of this contract amounts to US\$ 27 million and is financed by the AFESD.

- Potable water supply network for Saida Water Authority: the value of this contract amounts to US\$ 4.6 million and is financed by the AFESD.

- Rehabilitation of Jezzine potable water supply networks and systems: this project amounts to approximately US\$ 1.2 million and was financed by the French Agency for Development.

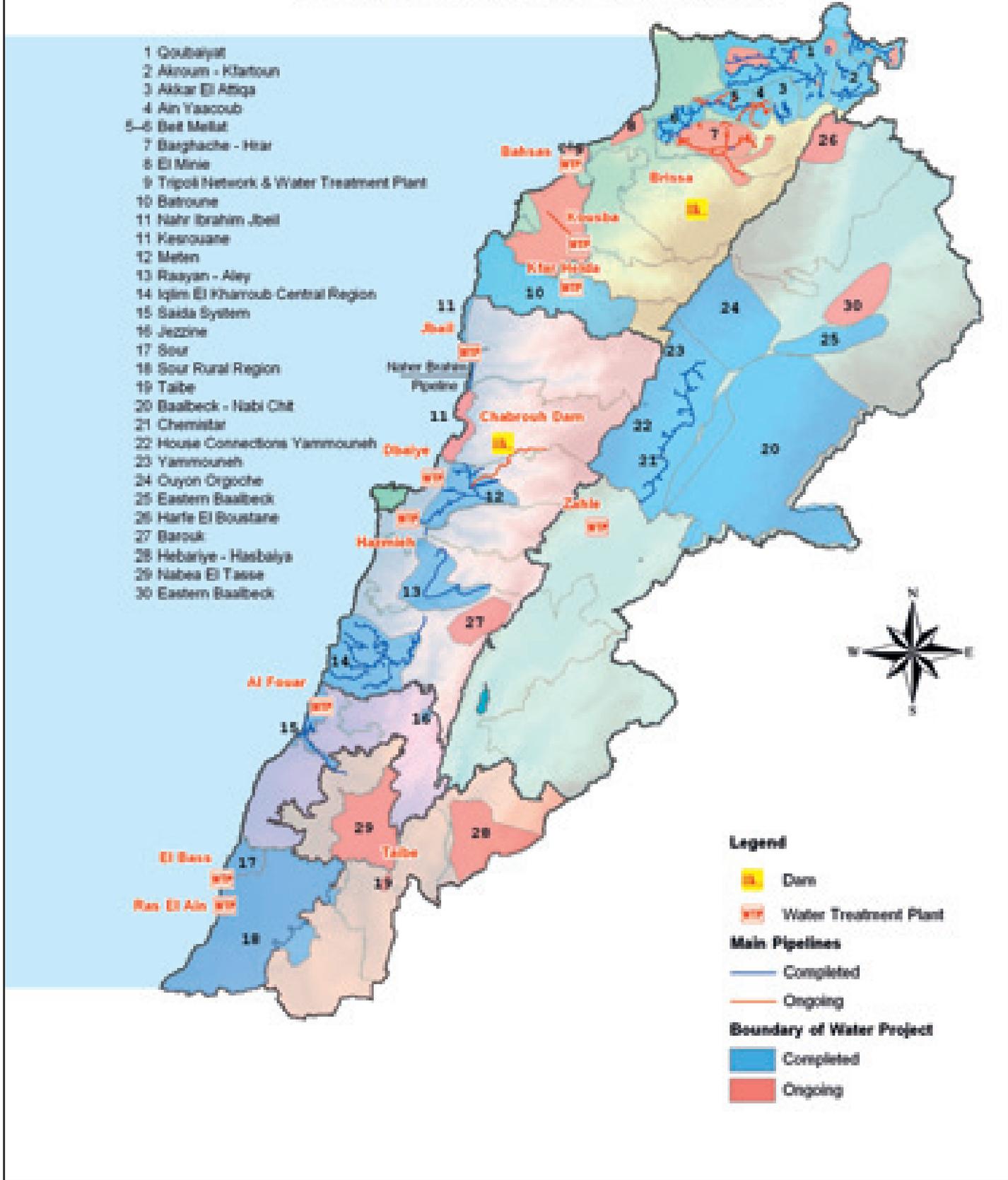
Progress of works in ongoing projects

Bekaa and Baalback Hermel Governorates

- Baalback-Nabi Sheet potable water supply systems: these works are supplemental to the Baalback-Nabi Sheet potable water project and Baalback wastewater network described above. Through these works, the potable water distribution piping and domestic connections will be installed. These works were the subject of two contracts financed by the World Bank and amounting to approximately US\$ 23 million. Almost 95% of works have been achieved until today.

- Domestic connections for the regions covered by Yammouneh-Ouyoun Orghosh potable water systems: by virtue of this project, domestic connections are being set up for all villages that benefited from the Yammouneh-Ouyoun Orghosh projects, which were achieved as shown above; the project amounts to approximately

Water Supply Completed & Ongoing Projects



US\$ 6 million and 95% of works have been achieved until today.

- **Potable water supply systems for north Bekaa (first phase):** this project is executed in three phases to supply potable water to regions covering Rasm al-Hadath-Arsal area in north Bekaa, and construction of reservoirs and distribution networks. The project amounts to approximately US\$ 24 million and 80% of works have been achieved until today.

- **Project to supply potable water to Hermel region:** the contract amounts to US\$ 12,5 million, financed by Iran.

- **Operation and maintenance contract for Baalback-Hermel water authority for potable water and irrigation:** CDR launched a tender for private sector regarding operation of the potable water facilities and irrigation of Baalback-Hermel regions, similar to what has been carried out with Tripoli Water Authority. CDR expects that involving the private sector in the management of Baalback-Hermel potable water and irrigation will greatly improve its services and enhance its productivity and efficiency. The World Bank is financing this project amounting to US\$ 4,6 million.

Akkar Governorate

- **Project to supply potable water to Akkar al-Atika region:** the contract amounts to US\$ 6.65 million, through local funding and 80% of works have been achieved until today.

Capture project of Barghash and

Kaf al Tineh spring water: this project aims at capturing Kaf al Tineh and Barghash spring water and construction of main transmission lines to two main reservoirs in Hrar and Kabeet. The contract amounts to US\$ 5,7 million and financed by the Saudi Fund for Development and 80% of works have been achieved until today.

North Governorate

- **Minyeh potable water supply:** the project aims at supplying Minyeh and surrounding villages with potable water. The project amounts to US\$ 5.5 million and is financed by the Saudi Fund for Development and 40% of works have been achieved until today.

- **Barissa Hill Lake dam and irrigation water:** the project aims to supply potable water and irrigation to villages in the upper parts of Minyeh-Danniyeh district. The project is funded by the Saudi Fund for Development through a grant offered by the Kingdom of Saudia Arabia, it amounts to US\$ 13.8 million, 75% of works have been achieved until today.

- **Execution project of water works in Koura and Tripoli regions:** the value of the project is approximately US\$ 8 million, it is funded by Italy and 30% of works have been achieved until today.

- **Renewal of water networks and domestic connections in Tripoli:** the value of the project is 7.6 million euro and is funded by the AFESD and 60% of works have been achieved until today.

- **Expansion of Bahsas water treatment plant:** this project

includes upgrading the capacity of Bahsas water treatment plant from its present capacity of 40,000m³ per day to 70,000m³ per day. The value of the project is 3,9 million euro, it is funded by the AFESD and 60% of works have been achieved until today.

- **Potable water supply between Kousba and Kayh:** The value of the project is US\$ 2.7 million, it is funded by the Kuwaiti Fund and almost 90% of works have been achieved until today.

- **Execution of water works in various regions of Zgharta:** amounting to an approximate value of US\$ 1.1 million, it is financed by the Kuwaiti Fund and almost 90% of works have been achieved until today.

Mount Lebanon Governorate

- **Potable water supply to Keserwan coastal region from al-madik spring:** the value of the project amounts to US\$ 58,5 million funded by the Japanese Bank for International Cooperation (JBIC). The work contract was signed in June 2001 and included: construction of the Madik spring water captage dam; installation of main water piping (through a tunnel) to Keserwan coastal region; construction of main water reservoirs and potable water distribution networks for Keserwan coastal region. About 70% of the works have been achieved until today.

- **Ra'ayan spring water conveyor line – Aley main water reservoir:** this project will convey about 12,000m³ of water per day from Ra'ayan spring to Aley main



Construction of a Water dam - Brissa (North Governorate)

potable water reservoir. The project amounts to US\$ 14,7 million financed by the Kuwaiti Fund for Arab Economic Development and 95% of works have been achieved until today.

- **Qattine-Azar potable water supply:** this project amounting to approximately US\$ 4 million aims at exploiting Qattine spring water to supply potable water to the upper areas of Metn and is financed by the Kuwaiti Fund for Arab Economic Development and 85% of works have been achieved until today.

- **Execution of water supply networks from Nabeh al-Aasal to Bhannes reservoirs – Phase 1:** this project amounts to approximately US\$ 4,3 million, it is financed by the Kuwaiti Fund and 25% of works have been achieved until today.

- **Execution of various water works in Barouk region:** this project amounts to US\$ 4,8 million,

it is financed by the Kuwaiti Fund and 75% of works have been achieved until today.

- **Rehabilitation of wells and execution of wastewater installations in Ain el Delb:** this project amounts to US\$ 3,75 million, it is financed by the Kuwaiti Fund and 90% of works have been achieved until today.

South Lebanon and Nabatiyeh Governorate

- **Taybeh potable water treatment plant:** the contract amounts to approximately US\$ 20.6 million distributed into two parts: the first part of an approximate value of US\$ 14,6 million funded by the Islamic Bank for Development and aims at installing a potable water treatment plant and 80% of works have been achieved until today. Upon completion of works the plant will be capable of treating 25000m³ per day of water and

pumping it through potable water networks operated by Jabal Amel Water Authority. The second part amounting to US\$ 6 million aims at executing rehabilitation works of old constructions and providing electric power, operation and maintenance through local funding. About 90% of works have been achieved until today.

- **Project execution of potable water supply to Sour:** the project amounts to approximately US\$ 16,89 million financed by the Arab Fund and 85% of works have been achieved until today.

- **Execution of water and wastewater works in Sour and Nabatiyeh districts:** the project amounts to approximately US\$ 4,8 million financed and supervised by the Kuwaiti Fund.

- **Digging and installation of wells in Douair and Klaileh:** the project amounts to approximately US\$ 1,2 million financed and supervised by the Kuwaiti Fund.

- **Execution of potable water in al-Habbariyeh region:** the project amounts to approximately US\$ 4.4 million and it is financed by the French Agency for Development.

- **Execution of potable water conveyor lines from Nabeh al-Taseh to Nabatiyeh region:** this project aims at increasing the capacity of potable water and services in this region. The project amounts to approximately US\$ 5 million and is funded by the French Agency.

Main contracts awarded during 2008

- Equipment of Abi Yaghi well and its annexes in Batroun.
- Completion of execution of water works in Batroun region funded by the Kuwaiti Fund.
- Execution of water works in both Koura and Tripoli regions, funded by the Italian government.
- Execution of rehabilitation and expansion of potable water and irrigation networks in al-Habbariyeh region in Hasbaya district, funded by the AFD.
- Execution of potable water conveyor lines from al-Taseh spring to Nabatiyeh, funded by the AFD.
- Contracts to drill and equip wells in various Lebanese regions affected by the Israeli war of 2006, funded through a grant offered by the Kuwaiti Fund.
- Potable water supply of villages in Baalback district – north part (phases 1 and 2) through local funding.

Main projects under preparation Greater Beirut

-**Awali-Beirut water conveyor:** this project aims at conveying potable water from al-Awali river to the Greater Beirut areas. It is a vital project to meet the potable water needs of people living in Greater Beirut region. The cost of this project is estimated at about US\$ 200 million: the Islamic Development Bank participates in a grant of US\$ 70 million and it is expected that the World Bank will also participate in financing this project.

-**Expansion of Dbayeh potable water treatment plant (second phase):** this project aims at expanding the capacity of Dbayeh potable water treatment plant from 430,000m³ to 500,000m³ per day. The cost of this project is estimated to US\$ 5,1 million and will be funded by the Lebanese-Italian financial Protocol.

Bekaa and Baalback-Hermel Governorates

- **Construction of additional wastewater and potable water lines and networks in Nabi Sheet and Khodr:** the cost of this project is estimated at about US\$ 3.5 million financed by the World Bank and it is expected that works will start by the end of 2009.

-**Rehabilitation and expansion of potable water systems in West Bekaa and villages of East Zahle district:** this project includes the drilling of wells and distribution networks to most villages in West Bekaa and East Zahle district. The cost of the project is estimated at about US\$ 52 million, an economic

and environmental feasibility study of the project was carried out and it is expected that the works of the first phase, estimated at US\$ 15 million, will start during the summer of 2009; and the second phase during the second half of 2010. The World Bank will take part in financing this project through a grant of US\$ 15 million, in addition to the Kuwaiti Fund for Development through a grant of US\$ 37 million.

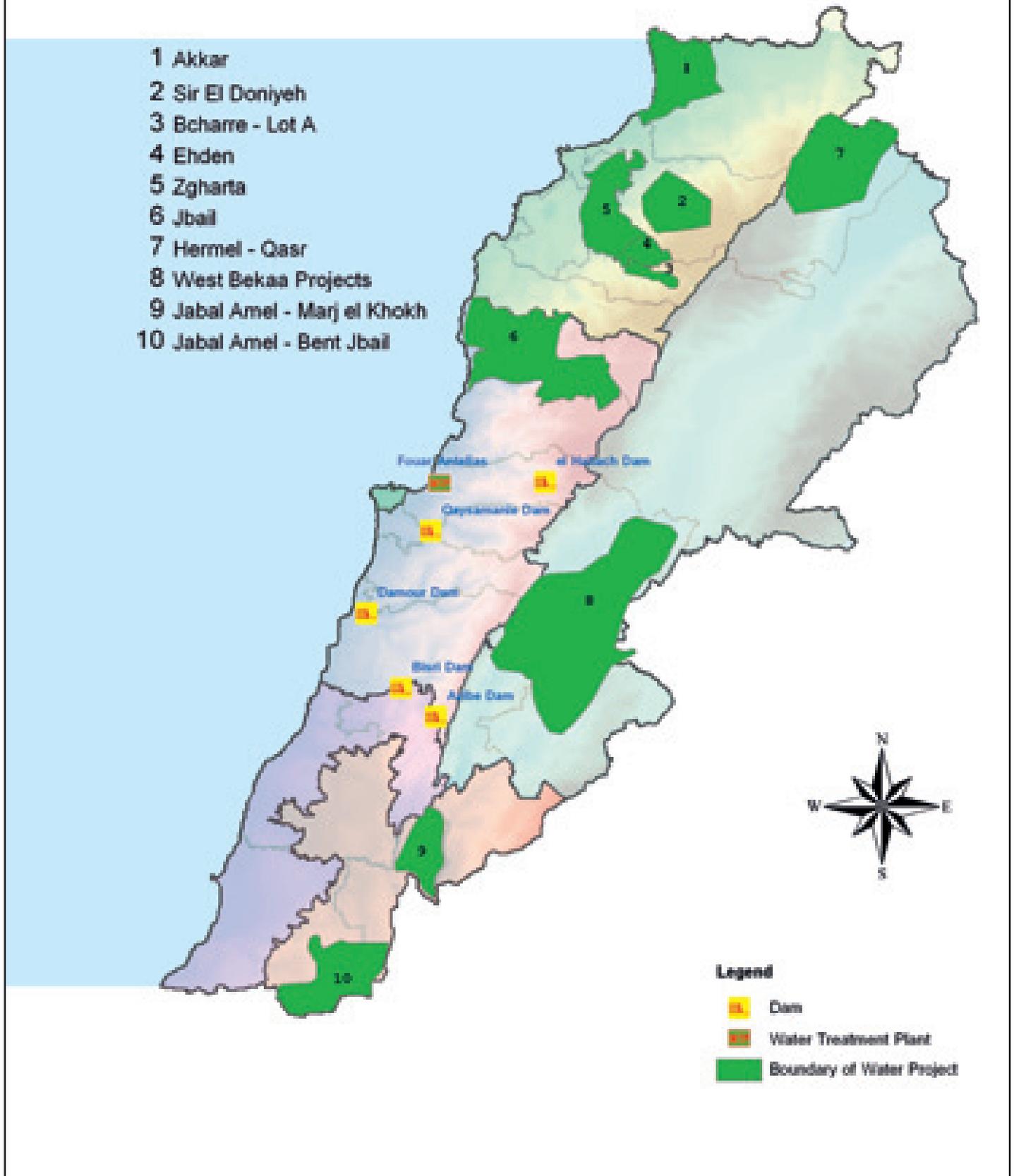
- **Potable water supply to Zahle region:** this project includes the construction of water reservoirs, supply of potable water and distribution networks and pumping plants to Zahle. The cost of the project is estimated at about US\$ 8 million, and it is expected that the Kuwaiti Fund will finance the project, and it is expected that works will start during 2010.

- **Water network in Barghash-Hrar, Kaf al-Tineh, Kabeet:** this project includes the construction of water reservoirs, supply of potable water and distribution networks and pumping plants to 25 villages. The cost of the project is estimated at about US\$ 10 million, and it is expected that it will be financed by the Arab Fund for Development, and it is expected that works will start during the first semester of 2010.

- **Potable water supply to Akkar plains:** this project includes the construction of water reservoirs, supply of potable water and distribution networks and pumping plants to all villages of the plain in Akkar. The cost of the project is estimated at about US\$ 58 million, and it is expected that it will be financed by the Islamic Bank for

Water supply Projects Under Preparation

- 1 Akkar
- 2 Sir El Donyeh
- 3 Bcharre - Lot A
- 4 Ehden
- 5 Zgharta
- 6 Jbail
- 7 Hermel - Qasr
- 8 West Bekaa Projects
- 9 Jabal Amel - Marj el Khokh
- 10 Jabal Amel - Bent Jbail



Legend

- Dam
- Water Treatment Plant
- Boundary of Water Project

Development, and it is expected that works will start during 2010.

North Governorate

- Rehabilitation and restoration of Becharre potable water supply systems: this project includes the supply of potable water to Becharre and surrounding villages from Qadisha spring, and drilling of several artesian wells, rehabilitation and expansion of water supply networks and domestic connections as well as construction of water reservoirs. The project amounts to US\$ 9 million and is financed by the AFESD, and it is expected that works will start during the second half of 2009.

- Rehabilitation and expansion of Chekka and Anfe potable water supply system: the project covers the supply of potable water to Chekka and Anfe-Hreishe through the drilling of several artesian wells in Jaradeh area, rehabilitation and expansion of potable water supply networks, domestic connections and construction of reservoirs. The project amounts to US\$ 8 million and is financed by the AFESD, and it is expected that works will start during 2010.

- Completion of water works in several regions in the North: Batroun, Zghorta, Koura, with an estimated amount of US\$ 6 million and is funded by the Kuwaiti Fund.

- Completion of water systems in Danniye: this project aims at completing the water system works executed by the Ministry of Energy and Water during 1998 – 2002, and of which 7 parts form the project and are not yet exploited. After the Italian government expressed its

will to finance these works estimated at approximately US\$ 5 million, the CDR started to conduct the necessary studies and works are expected to start during 2009.

- Completion of water systems in Minyeh: this project aims at completing the water system works executed by the CDR and of which parts are still unexploited. It is expected that works will start during 2010, with an estimated cost of about US\$ 10 million funded by the Saudi Fund for Development.

- Completion of water systems in Zghorta: the project covers the supply of potable water to Zghorta region through the drilling of several artesian wells, rehabilitation and expansion of water networks, domestic connections and construction of reservoirs. The project amounts to US\$ 16 million and is financed by Abu Dhabi Fund, and it is expected that works will start during the second half of 2009.

Mount Lebanon Governorate

- Jbeil potable water supply: The cost of this project is estimated to about US\$ 34 million and will be funded by the Lebanese-Italian financial Protocol. Currently, the required upgrading studies are being conducted, and it is expected that invitation to tender will be issued during the first half of 2010.

- Construction of Qaysmani dam in Baabda district: this project aims at supplying Baabda and Aley with potable water. The capacity of the dam is about 550 thousand m³ thus supplying the two district with 6000m³ water per day. The project is estimated to cost about US\$ 17

million, and it is expected that works will start during 2010.

- Construction of a lake in Jbailiyeh-Manzoul in Matn district: this project aims at supplying the district with potable water. The project is estimated to cost about US\$ 15 million, financed by the Kuwaiti Fund and it is expected that works will start during 2010.

South Lebanon and Nabatiyeh Governorates

- Rehabilitation and expansion of water systems in Nabatiyeh: The cost of this project is estimated to about US\$ 4.5 million and will be funded by Abu Dhabi Fund. The CDR conducted detailed studies and tender documents related to this project. It is expected that works will start during the first half of 2010.

- Execution of several water works within liberated regions in South Lebanon: The cost of this project is estimated to about US\$ 6 million and will be funded by the AFESD. It is expected that works will start during the second half of 2010.

- Rehabilitation of potable water systems to several villages depending on Jabal Aamel Water Authority: this project covers the construction and rehabilitation of potable water networks depending on Jabal Aamel Water Authority, Marjeyoun, Bent Jbeil and Hasbaya will benefit from this project. The cost of this project amounts to US\$ 12 million and will be funded by the IBD and it is expected that works will start during the second half of 2009.

Main contracts signed during 2008

Project	Estimated value (US\$)	Source of Funding	Starting	Expected completion
Equipment of Abi Yaghi well in Batroun district	796,723	Local	November 2008	October 2009
Completion of execution water works in Batroun region	3,973,829	Kuwaiti Fund for Economic Development	March 2009	March 2010
Completion of execution water works in Koura and Tripoli regions	8,097,458	Italian state	February 2008	August 2010
Potable water supply and irrigation of al-Habbariyeh-Hasbaya region	6,345,469	AFD	May 2008	November 2009
Potable water supply networks from al-Taseh spring to Nabatiyeh	2,675,701	AFD	November 2008	August 2009
Drilling of wells in several Lebanese regions affected by the Israeli war in 2006	1,898,795	Kuwaiti Fund for Economic Development	July 2008	December 2009
Potable water supply to north-eastern Baalback – phases one and two	10,353,944	Local	July 2008	July 2010
Awali-Beirut water conveyor	200,000,000	Islamic Bank and World Bank	August 2010	August 2013
Additional wastewater installations and conveyors and potable water networks in Nabi Sheet-Khodr	3,500,000	World Bank	December 2009	December 2010
Rehabilitation & expansion of water systems in West Bekaa and villages east Zahle district - first phase	15,000,000	World Bank	October 2009	October 2011
Rehabilitation & expansion of water systems in West Bekaa and villages east Zahle district - second phase	37,000,000	Kuwaiti Fund	December 2010	December 2014

Main contracts signed during 2008 - Continued

Project	Estimated value (US\$)	Source of Funding	Starting	Expected completion
Potable water supply to Zahle	8,000,000	Kuwaiti Fund	September 2010	May 2012
Rehabilitation & expansion of water systems in Barghosh -Hrar, Kaf al-Tineh, Kabeet	10,000,000	Arab Fund	January 2010	January 2012
Potable water supply to Akkar plains	58,000,000	IBD	December 2010	December 2011
Rehabilitation & renewal of water installations in Becharre	9,000,000	Arab Fund	June 2010	December 2011
Rehabilitation & expansion of water systems in Chekka and Anfeh	8,000,000	Arab Fund	June 2010	December 2011
Completion of water installations in several districts in the North	6,000,000	Kuwaiti Fund	May 2010	September 2011
Completion of water systems in Danniye	5,000,000	Italy	July 2010	December 2012
Completion of water systems in Minyeh	10,000,000	Saudi Fund for Development	March 2010	March 2012
Rehabilitation & development of water systems in Zghorta	14,000,000	Abu Dhabi Fund	October 2009	September 2011
Potable water supply and waste water in Jbeil district	34,000,000	Lebanese-Italian Financial Protocol	March 2010	July 2013
Qaysmani dam in Baabda district	17,000,000	Kuwaiti Fund (promised)	September 2010	May 2012
Installation of lake Jabaliya-Manzoul in Matn district	15,000,000	Kuwaiti Fund	September 2010	May 2012
Rehabilitation & development of water systems in Nabatieh	4,500,000	Abu Dhabi Fund	February 2010	February 2011
Execution of various water works within liberated regions in South Lebanon	6,000,000	Arab Fund	October 2010	October 2011
Rehabilitation of potable water systems in several villages related to Jabal Amel Water Authority	12,000,000	IBD	October 2009	September 2012