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## **Message of the President**

In 2017 the “restoring confidence” government headed by Prime Minister Saad Hariri started the ball rolling after having gained the Parliament’s confidence at the end of 2016. With the election of General Michel Aoun as president of the republic in 2016, the normal functioning of all constitutional institutions resumed, after a period of stagnation and dysfunction which was reflected in the economic and social landscapes. Among the most revealing indicators of the normal functioning of institutions was the adoption by the Parliament of the 2017 budget, knowing that nearly 11 years have elapsed since the last annual budget was passed by an act of parliament.

One of the major activities of the Council for Development and Reconstruction was the development of the “Public Investments Program” in collaboration and coordination with the various concerned ministries and institutions. Besides shaping the government’s vision for the coming years, this program will be presented to the Paris Conference, which will be dedicated to supporting Lebanon in its public investments and structural and financial reforms programs due to the interdependence of these programs and the urgent need for them.

This investment program comprises also several projects that may be implemented in partnership with the private sector, in accordance with the Public Private Partnership (PPP) law that was ratified by the Parliament in 2017.

Alongside the preparation for this investment program, the CDR continued the execution of ongoing projects and launched new projects that are detailed out in this report.

Additionally, 2017 witnessed the signature of several funding agreements and agreement preparations with the various funding sources. The last part of this report highlights the CDR’s activities and interventions throughout the year.

We hope that the forthcoming year 2018 will be the year to kick start the engine of public investments in vital sectors concurrently with the public sector active engagement in financing and managing public services, and meanwhile achieve sectoral policy and public finance reforms that are more urgent than ever.

## **Introduction**

This report presents an overview of the CDR's activities during 2017. It contains significant achievements implemented from 1992 to 2017 and states the developments that took place during the year 2017 including the major sectors' projects that are being executed and under preparation.

Each sector includes two tables:

- A table with the major Contracts Awarded in 2017.
- A table with the Contracts in Preparation and are expected to be launched during the year 2018 and after.

This report deals essentially with CDR work. For completeness of information, reference is made to activities executed by other Ministries and public bodies. The tables, however, include information related to activities only implemented by CDR.

## General Overview of the Sectors

The activities of CDR cover various economic sectors. However, the extent of these activities varies from sector to sector in accordance with the Government's directives and Lebanon's free enterprise economic system. The role of the State is limited to the support and promotion of the private sector.

CDR works in conjunction with the various ministries concerned by implementing investment projects and providing them with technical assistance.

Operation and maintenance of completed infrastructure projects remains the responsibility of the relevant ministries. However, CDR manages and implements operation and maintenance services that may be requested by the Government.

CDR is active in the following four main sector groups:

- 1- Physical infrastructure: Electricity, telecommunications and transportation;
- 2- Social infrastructure: Education, public health, social and economical development, land use and environment;
- 3- Basic services: Water supply, wastewater, solid waste management;
- 4- Productive and other sectors: Agriculture, irrigation, sovereignty services, tourism and others;

The total value of contracts signed by CDR between 1992 and the end of 2017 was about US \$ 14,795.84 million. About US \$ 10,272.26 million of the projects were completed, while works valued at about US \$ 4,523.58 million is underway. These contracts are distributed among sectors according to the following ratios:

The charts that follow provide an overview of the distribution of contracts over the main sectoral groups, as well as the distribution of contracts over the specific sectors that make up these sectoral groups.

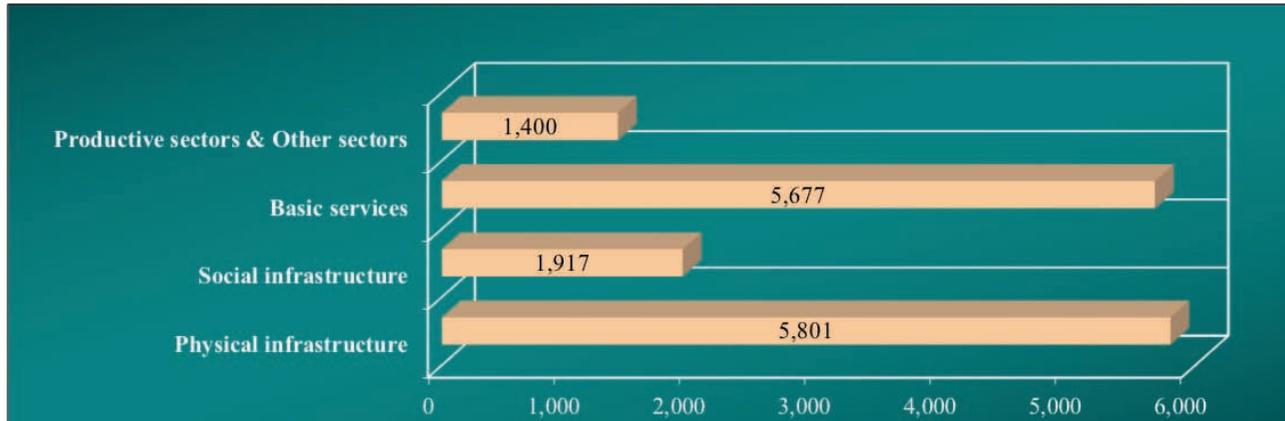
| Sector                      | %  |
|-----------------------------|----|
| Electricity                 | 10 |
| Transportation              | 24 |
| Water supply and Wastewater | 17 |
| Telecommunications and Post | 5  |
| Solid waste                 | 21 |
| Education                   | 9  |
| Public Health               | 3  |
| Other sectors               | 11 |

Total value of contracts awarded from the 31st of December 1992 till the 31st of December 2017 in millions of dollars

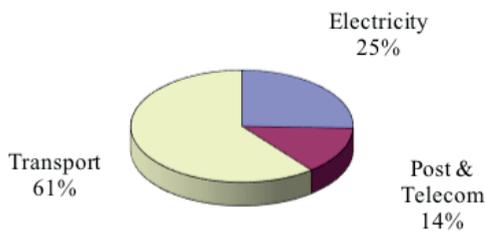
| Sectors                              | Total Contracts (U.S. dollars) | Contracts In progress (U.S. dollars) | Contracts Completed (U.S. dollars) | Foreign funding (U.S. dollars) |
|--------------------------------------|--------------------------------|--------------------------------------|------------------------------------|--------------------------------|
| Physical Infrastructure              |                                |                                      |                                    |                                |
| Electricity                          | 1,480.75                       | 46.68                                | 1,434.07                           | 1,289.53                       |
| Telecommunications, Posts            | 798.77                         | 0.00                                 | 798.77                             | 33.26                          |
| Transportation                       | 3,521.93                       | 1,318.13                             | 2,203.80                           | 1,146.13                       |
| Social Infrastructure                |                                |                                      |                                    |                                |
| Education                            | 1,340.86                       | 288.20                               | 1,052.66                           | 575.72                         |
| Public health                        | 371.22                         | 83.03                                | 288.19                             | 242.96                         |
| Environment and Regional Planning    | 137.49                         | 80.27                                | 57.22                              | 111.16                         |
| Social and economical affairs        | 66.98                          | 0.34                                 | 66.64                              | 24.55                          |
| Basic Services                       |                                |                                      |                                    |                                |
| Water Supply                         | 1,429.65                       | 718.07                               | 711.58                             | 957.74                         |
| Wastewater                           | 1,126.40                       | 771.00                               | 355.40                             | 571.71                         |
| Solid Waste                          | 3,121.33                       | 590.10                               | 2,531.23                           | 33.60                          |
| Productive sectors and other sectors |                                |                                      |                                    |                                |
| Agriculture and Irrigation           | 543.48                         | 429.71                               | 113.77                             | 396.77                         |
| Sovereign services                   | 175.29                         | 42.51                                | 132.78                             | 19.63                          |
| Other Sectors                        | 681.69                         | 155.54                               | 526.15                             | 269.20                         |
| Grand Total                          | 14,795.84                      | 4,523.58                             | 10,272.26                          | 5,671.96                       |

Note: In case an addendum is signed and is part of a completed project, the value of the completed project will be moved to the section of projects in progress.

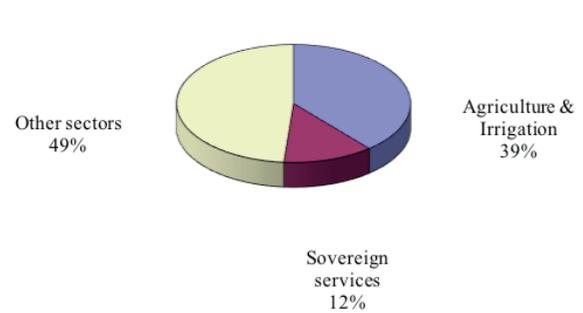
**Contracts awarded \$14,795.84 million  
Distribution by sector**



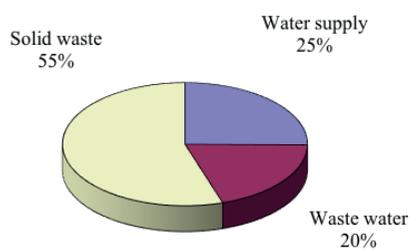
**Physical infrastructure \$5,801 million**



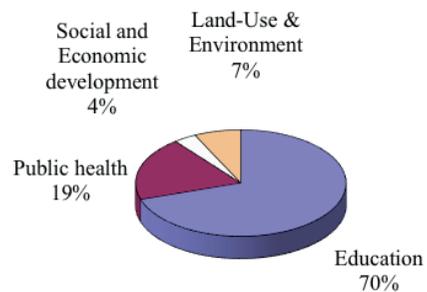
**Productive sectors & Other sectors \$1,400 million**



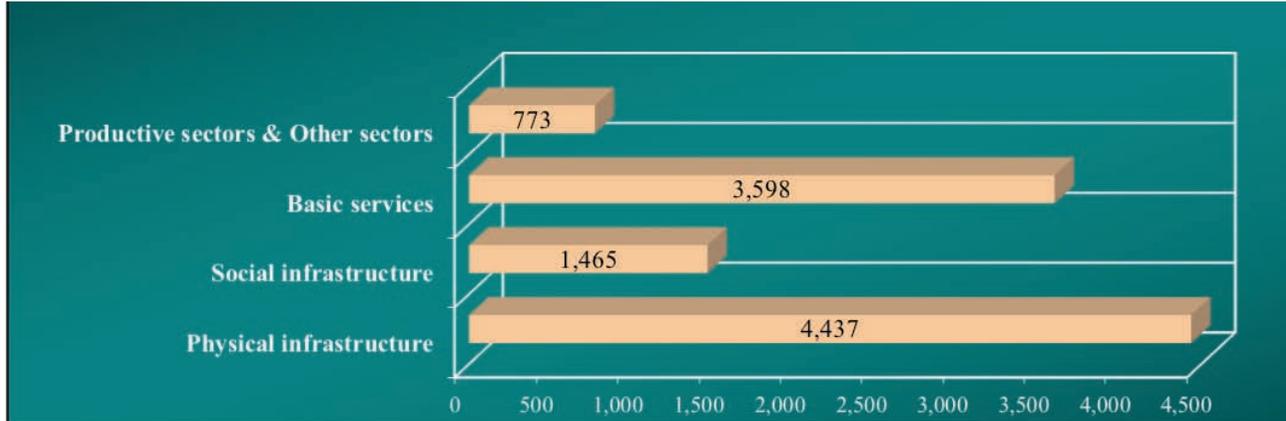
**Basic services \$5,677 million**



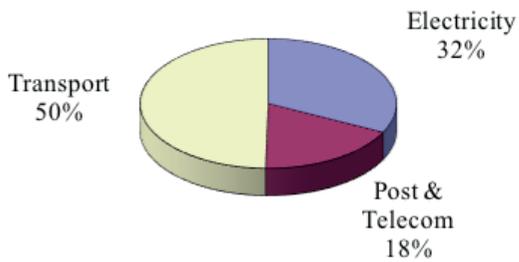
**Social and Economic sectors \$1,917 million**



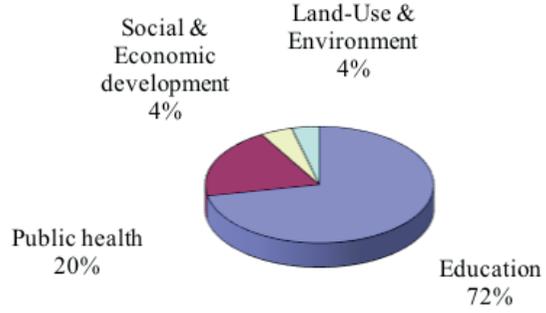
**Contracts completed \$10,272.26 millions  
Disdribution by sector**



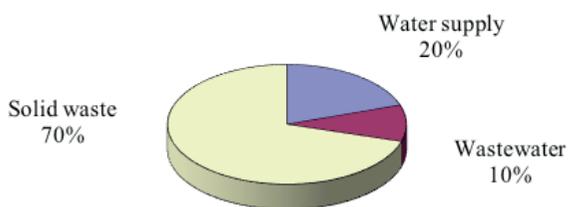
**Physical infrastructure \$4,437 million**



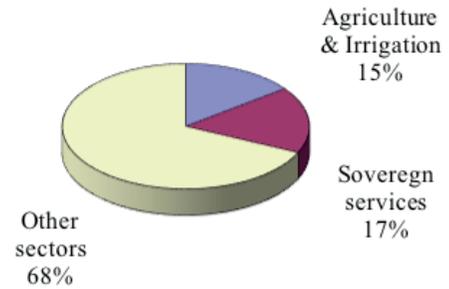
**Social and Economic sectors \$ 1,465 million**



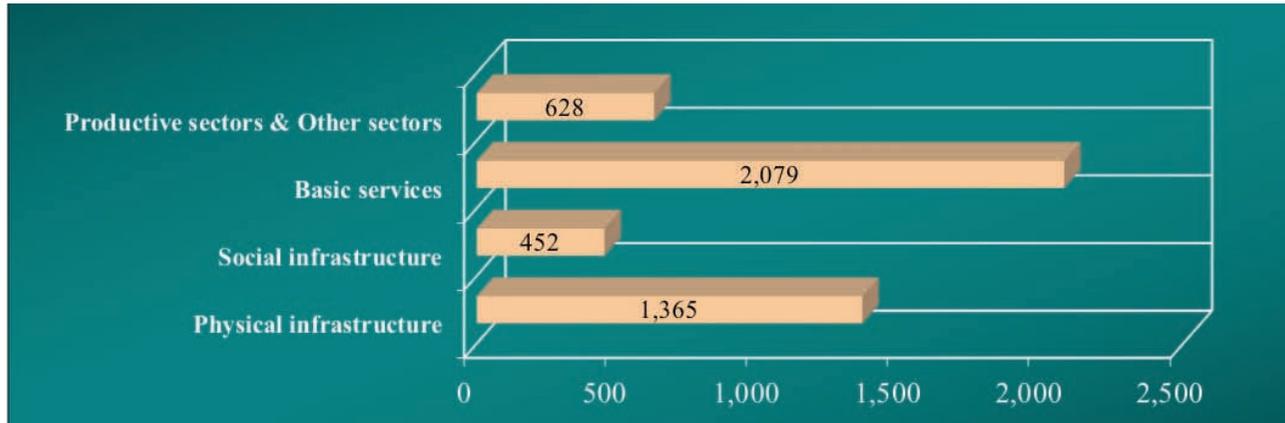
**Basic services \$3,598 million**



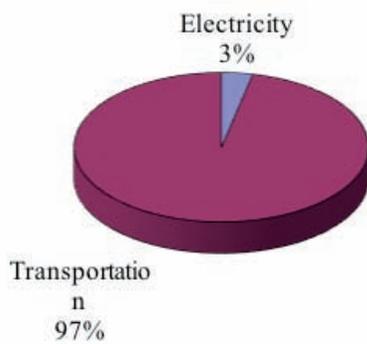
**Productive sectors & Other sectors \$773 million**



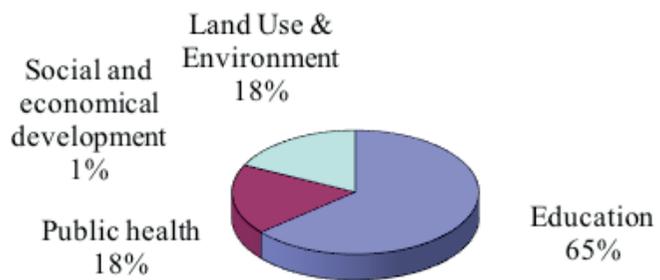
**Contracts in progress \$4,523.58 million**  
**Distribution by sector**



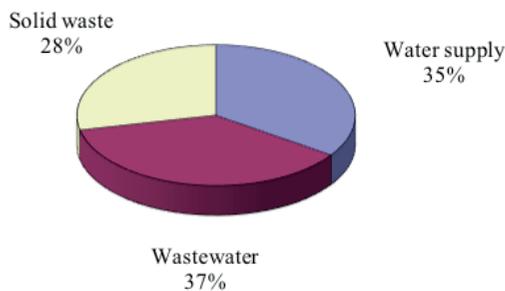
**Physical infrastructure \$1,365 million**



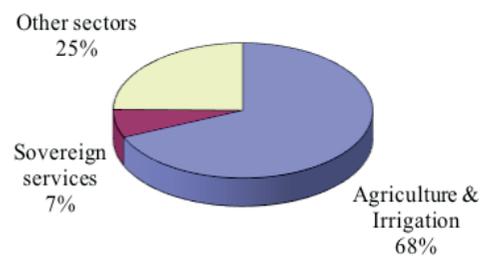
**Social and Economic sectors \$ 452 million**



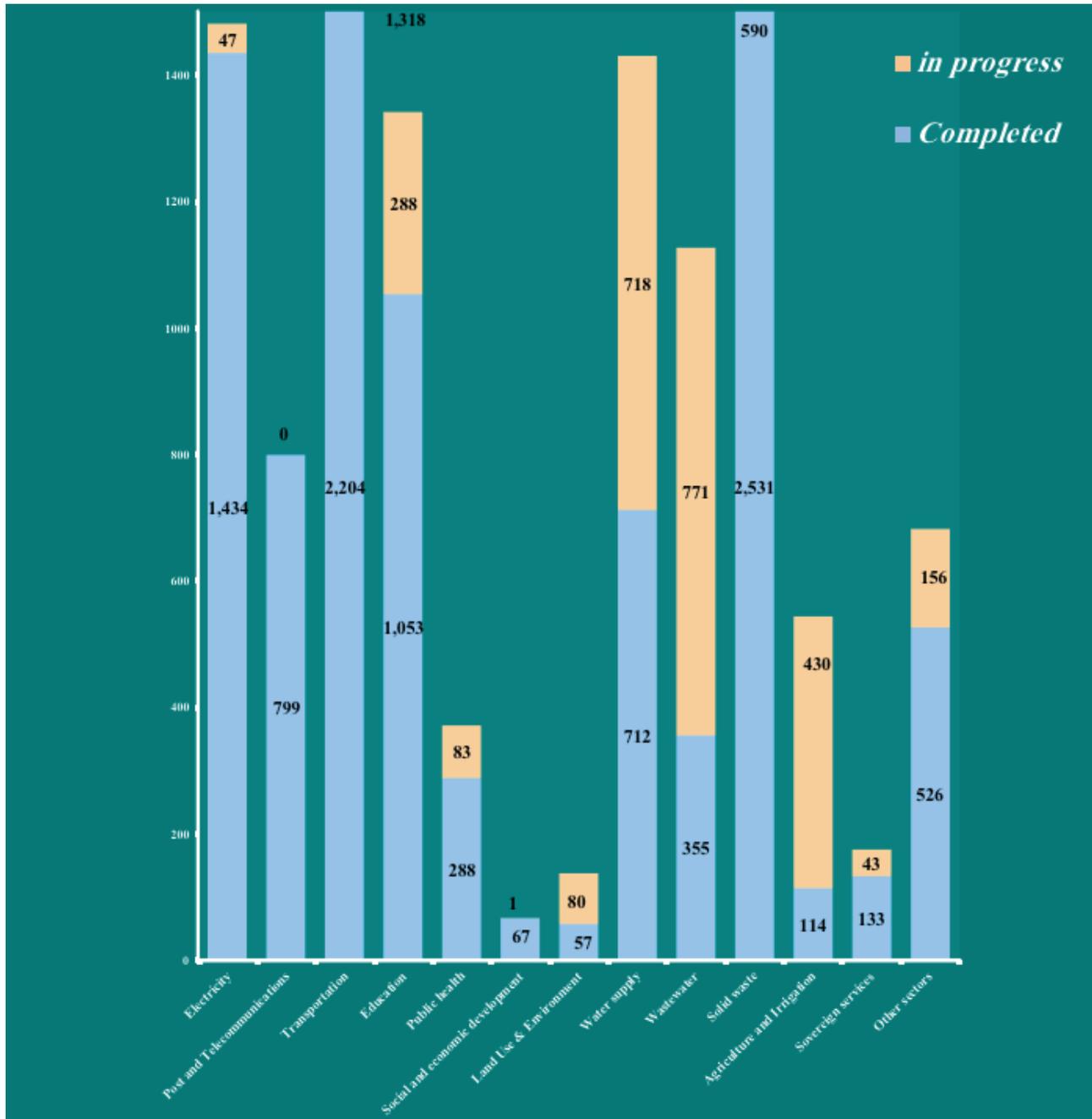
**Basic services \$2,079 million**



**Productive sectors & other sectors \$ 628 million**



**Contracts awarded \$ 14,795.84 millions  
(completed & in progress) Distributed by sector**



## Electricity Sector

### **Electricity Sector Overview**

The subject of securing electrical energy supplies today from renewable and non-renewable sources represents a strategic priority and a key driver for achieving sustainable development in any community or in any nation. This trend is clearly reflected in the strategies adopted by countries seeking to develop their energy sector, and in their continuing calls to expand the scope of use in their energy mix, not only as a feasible solution to meet the growing demand for energy, but also as a strategic option geared at the eradication of poverty and the improvement of opportunities for accessing water, food, health and education services, not to say the least, in the contribution to economic development.

Experts, academics and workers in this sector have always called on executives and decision-makers to take a strategic choice to generate enough energy so as to establish a lasting source that takes into account the need to protect the environment from consuming non-renewable fossil fuels, and to open up the way for upgrading social aspects, ecological balance, and economic efficiency.

Since the Lebanese economy is linked to a key variable represented in the traditional way of producing energies, its development stands against the challenges of energy availability. This trend confines the orientation choice towards fossil fuel resource management and the establishment of a sustainable formula for the supply and development, accompanied with a low carbon emission policy. A stake we must adopt for re-positioning within the new global economic order with the aim of moving forward with a long-term strategy to develop key economic sectors to reach economic sustainability.

The expenditure by the Lebanese Government of not less than thirteen billion dollars to import fossil fuel material for EDL from 2005 until 2013, has pointed to the enormous subsidy allocated for the sector by the state, which illustrates how challenging reforms have become for the Lebanese government to face in the foreseeable future. Especially after the covenant it took upon itself to carry out the required reforms in order to transform the sector from a burden on the treasury and its economy to an effective sustainable nerve that would render a positive impact over the national income growth and consequently on the economy.

For those who went along and followed well the course of events of the energy sector in Lebanon, will clearly see that the financial and the legislative realities, and the inability to implement the laws has led to the worsening of the many chronic problems that have hampered the core business and threatened the sectors and inflicted harsh damage to the national economy. The sector was made impossible to be tackled, unless a well rooted gradual reform policy is adopted that would be capable of lifting all the aspects of the energy sectors including renewable energy and energy conservation. A comprehensive strategy for an energy sector system with all its details can constitute a mandatory continuous national policy. If supplemented with a realistic interim programmed policy, it would expedite in the preparation, assemblage, auditing and documentation of an energy database that would help decisions to be built upon. Such policy can eventually lead to the preparation and ratification of modern laws that can guarantee to achieve the goals of the comprehensive strategy.

### **The Current Condition of the Sector**

The electricity sector in Lebanon has entered a critical phase in terms of the production capacity deficit. The imperative issue requires reconsideration of the priorities in order to prevent further deterioration in the first phase, bridging the deficit in the second, and anchoring the required stability at the end.

In accordance with the Ministry of Energy and Water, the demand on electrical energy reached 22,812GWh in year 2017 (inclusive of the Syrian refugees demand), which can be approximated at an annual average of 2,604MW of power demand, which is equivalent to 3,774MW of peak power demand at a load factor of 69%. The electrical energy produced and purchased in year 2017 reached 14,113GWh which accounts for an annual average of 1,611MW of produced and purchased power or the equivalent of an annual peak of 2,335MW of power. The current gap extended to 1,1439MW represents 38% at peak power demand, which translates to an average of 9 hours of daily rationing. (*see figure no. 1*)

Currently, the main effective peak capacity does not exceed 2,108MW whereas the demand has surpassed 3,700MW in 2016. Power generation in Lebanon is concentrated mainly on thermal energy production. Hydropower produced from plants does not exceed 4.5% from the total generation capacity in the country.

### **Power Supply from External Sources**

Electric power is drawn from Syria to Lebanon through two main connection networks. The first network links

Deir Nbouh plant in the north with the Tartous plant in Syria through two overhead lines of 120 megawatt capacity working on 220 kV of electrical pressure. The second network has a capacity of 80 megawatts through a single overhead line working on 66 KV linking Aanjar substation plant with the Dimas plant in Syria. Lebanon has been drawing electrical power from Syria for a long time now. In year 2000, Lebanon drew a peak 1418 million kilowatt-hour of electrical energy. It stabilized, at a later stage, at a yearly average of approximately 800 million kilowatt-hours, only 8% of the total power production or the equivalent of 90 megawatts of continuous power capacity throughout the year. (see figure no.2)

Power drawing from Syria started to drop in year 2011. It dropped from 848 Million kilowatt-hours to reach 120 Million kilowatt-hours in year 2015.

As for the Eight Arab connection network, and the electric energy purchase agreement from Egypt, the construction works and installations of the new Ksara HV substation have been completed. Efforts have succeeded in September 2009 to operate the new 400KV overhead lines, and terminate the new link with the Dimas transmission plant in Syria.

In year 2010, Lebanon benefited from approximately 120 megawatts of additional electrical capacity on the grid at an average feed of 21 hours per day, but the transfer was halted in year 2011. The new grid connection capacity can currently carry up to 300 megawatts of power. Lebanon is currently seeking to increase the import capacity from the countries of the region to cover for the remaining 180 megawatts.

### The Main Problems of the Sector

- 1) The existence of high operational expenses are due to the following reasons:
  - The two combined cycle power plants in Zahrani and Deir Ammar, as well as the two open cycle power plants in Sour and Baalback operate on Gas Oil (Diesel) rather than natural gas.
  - The Zouk and Jiyeh thermal power plants operate with low efficiency, which necessitate periodical overhauling activities.
  - The need to operate Sour and Baalback thermal power plants outside peak times.
- 2) The existence of rationing and the increase in power failures are due to the following reasons:
  - Insufficiency of current power generation to meet all the needs, a fact that led to the spread of the local private generation phenomenon.
  - Low public investments since at least 15 years (not in the rehabilitation and maintenance of the plants nor in the construction of new ones).
  - The incompleteness of the 220 kV transmission networks.
  - The presence of the "bottle necks" on distribution networks and the increase of local breakdowns in crowded areas on peak times during summer and winter peaks.
  - Loss of flexibility of electricity links between the old and the new grid.
  - The absence of the usage of electronic accounting programs that study and organize the energy flow to ensure the supply and reduce the technical losses such as GIS.
  - Deficiency in periodic maintenance operations by technical expertise for the main power plants, the substations, and the transmission network.
  - High percentage of technical losses because of the incompleteness of the 220kV distribution grid, which varies from one area to another, exceeding in some areas the 15% average, to reach the 20% line in areas like the Bekaa.
  - The problems in the distribution network include:
    - The existence of old rusty steel distribution poles.
    - The inexistence of standby systems.
    - The inexistence of efficient monitoring of the meters.
    - The inability to prevent theft aggressions.
    - The inability to carry out required maintenance preventive measures.
    - The inability to match the billing preparation measures.
    - Collection and payment monitoring.
    - The ill issuance and control of bill settlements.
    - The loss of network components in some regions.
  - Significant shortage of required equipment tools and machinery necessary to improve and accelerate the needed interventions mainly due to the great financial deficit that EDL is experiencing.

- 3) The decline in financial returns of EDL are due to following reasons:
  - The global increase in oil prices has aggravated EDL's budget and increased the debt and caused a financial shortage, which became an increasing burden and a source of concern for the national treasury.
  - The tariff structure hasn't been reconsidered since almost 15 years now. A transparent policy that decides whether electric energy is sold as a commodity or delivered as a service needs to be adopted.
  - Continuous aggressions and illegal connections on the network.
  - Incomplete bill collections.
- 4) The main institutional problems in the management of EDL are as a result of:
  - An insufficient authority for the Board of Directors for taking adequate decisions.
  - Absence of clear criteria to evaluate the performance of EDL.
  - Lack in technical training and difficulty in recruiting new qualified personnel.
  - Unavailability of reliable and transparent reports (statistics, finance, criteria, performance, etc.) represented, the least to say, in the inadequate account auditing since 2001.
  - A huge deficiency in human resources represented by a present body of only 1902 employees when 5027 are needed; a vacancy for 3125 positions. The current body also loses 120 to 150 workers (8%) per annum due to retirement.

#### The Vision for the Future

In order to set in motion an efficient and sustainable sector, future visions to restructure the sector cannot be implemented unless the action plans include reform programs that would work on the short, medium and long terms in parallel. The reforms must encompass all the technical, financial and institutional aspects that would put in place an end to the financial deficit and ensure the auto-financing for future investments, as well as securing the good service at reasonable prices. On 21/6/2010, the Lebanese Government has ratified the policy statement in this regard for the power sector that aims at securing the financial balance and the sector stability.

#### Main Accomplishments (1992 – 2017)

Main projects implemented by CDR for EDL during the 1992 – 2017 periods can be summarized as follows:

- 1) Generation
  - Construction of two combined-cycle power plants in Deir Ammar and Zahrani with a capacity of 435 MW for each plant at a cost of US \$ 575 million, achieved in 1999.
  - Rehabilitation of thermal and hydraulic plants at a cost of US \$ 109 million, achieved in 1998.
  - Construction of two open-cycle power plants in Sour and Baalback with a capacity of 70 MW for each plant at a cost of US \$ 61 million, achieved in 1996.
  - The initiation of supply of a 120MW of electrical power from Egypt to the new HV transmission plant in Ksara through the Eight Arab connection network.
- 2) Transmission

The construction of the 220 kV network which included the installation of 339 km of overhead lines. Overhead lines that have been completely constructed are: Deir Nbuh to Ksara line, Ksara to Aaramoun line, Aaramoun to Zahrani and Sour line, and the Bahsas to Bsalim line passing through Halat.

- The construction of 220 kV substations in downtown Beirut, Aaramoun, Mkalles, El Horsh, Ras Beirut, Halat, Ksara, Bsalim, and Sour between 1999 and 2001.
- The construction of 61 km of underground buried cables for the 220 kV network in the North and in Beirut in 1999.
- The restructuring of the 150kV and 66 kV transmission networks in 1997.
- The construction of 400 kV network and substation in Ksara allowing for the power exchange between the countries of the region.
- Work on completing the 1900 meter run of the Mansourieh line, essentially after the conclusion of the report that was prepared by the Minister of Health on 5/11/2010, which concluded in the inexistence of any significant health risks attributed to the exposures of non-ionized electrical and magnetic fields.
- The completion of the 66KV line in Beit Mellat, in the area of Al-Ayoun and Fneidek in Akkar, has

allowed the Beit Mellat substation, which was completed in February 2011, to be placed in operation. The 66KV line was completed in year 2012 right after the Kuwaiti funds and the bidding process were settled. The project was designed to raise the transmission and distribution power capacity of the region from 10 to 40 MW.

3) Distribution

- Rehabilitation of the distribution networks in 1997 at a cost of US \$ 112 million.

4) The Technical Assistance Projects for the Electricity Sector Reform Plan:

- Right after an international tender was conducted during year 2007, three consulting service contracts were awarded that aimed at granting technical assistance within the framework of the electricity sector reform plan as follows:

- In relation to the Ministry of Energy and Water: Enhance the capacities of the Ministry of Energy and Water to implement the proposed reform actions in the sector policy statement. The main tasks assigned to the consultant were to assist the Ministry in the preparation of a national sector policy and fuel oil strategy. Part of the tasks was to review the proposals related to the supply of liquefied natural gas (LNG) to the Zahrani plant, and evaluate the proposals aimed at attracting private investments and reviewing previous studies regarding the establishment of the Electricity Sector Regulation Authority. Works are expected to be completed in September 2009. Having secured the funds from the World Bank, CDR, in this respect, and in coordination with the Ministry of Energy and Water, entered into a contract with Poten & Partners in October 2011, a well-known consultancy specialized in strategic studies for building Liquefied Natural Gas facilities, in an effort to help select the best technology and site location for a suggested port aiming at securing the required Natural Gas quantities at the best possible price. In April 2012, the Consultant completed all of the required tasks and submitted all the relevant reports, which contained:

- 1) A summary about existing worldwide LNG markets.
- 2) Lebanon's LNG demand up until year 2030.
- 3) A summary about the main LNG suppliers.
- 4) A detailed preliminary study for designing an LNG port after carrying out site assessments to 3 locations (Deir Ammar power plant, Zahrani power plant, and the Selaata area).
- 5) Three reports related to the Preliminary Environmental Impact Assessments of the 3 sites.
- 6) One report concerning the existing legal current conditions and the legal frames that should govern this sector.
- 7) The necessary capacity building for the specialists at CDR and at the Ministry of Water and Energy.
- 8) The preparation of the "EOI" (Expression of Interest) Terms of Reference for companies interested in bidding to build and operate a sea port for importing LNG including the purchase and operation of the Floating Station Regasification unit (FSRU) and the building of the sea port for receiving LNG through harboring the ships for emptying its loads. The goal of this TOR is to prepare a short list of qualified companies for invitations for bidding

In completion to what was required, and in cooperation with the Ministry of Energy and Water, CDR entered into contract, through local funding, with the same consultant in October 2012, to perform the second phase of these strategic studies. The consultant completed the required tasks on December 31<sup>st</sup>, 2013, and submitted the following reports:

- 1) Terms of Reference for the selection of consultants willing to conduct the Environmental Impact Assessments in support for the development of the Floating Station Regasification Unit to regasify LNG.
- 2) Term of Reference for the selection of the developer of the FSRU.
- 3) Help in selecting 4 companies capable of importing LNG to Lebanon.
- 4) Help to evaluate companies' bids for the development of the FSRU.

- 5) A report covering the training works required for the staff of the local institutions.
- As for EDL: The improvement of the operational and financial performance of EDL, where the main duties of the consultant will be the preparation of a plan for improving the efficiency of power generation plants and for assisting in the implementation procedures. Reorganizing the supply duties of EDL, establishing the priorities for reducing technical and non-technical losses, providing assistance to complete current projects, organizing an inventory of assets and survey of audited financial reports and preparing the tender documents for the financial audit contract covering 2005 and 2006 are also included in the tasks. Consultancy services are expected to be completed in May 2009.
  - As for the Higher Council for Privatization: To provide the necessary support for the Higher Council for Privatization for incorporating EDL in conformity with the Electricity Sector Regulation Law and the Ministry's plan for restructuring the sector. The tasks are to propose the organizational structures for companies that will emanate from EDL, including the detailed description of the proposed positions and the procedures to be followed; along with the preparation the preliminary work plans for these companies. It is also required to organize the inventory of assets and determine the capital levels and the share structure of these companies.
  - Right at the finish line of the first phase of the contract, CDR, entered into a contract with Booz and Co. to undertake another complementing study to the first phase in order to provide the Higher Council for Privatization with the required support in corporatizing EDL. The contract was signed in cooperation with the Ministry of Energy and Water and under finance from the World Bank. Booz and Co completed the studies by the end of May 2012 and submitted the reports related to the detailed implementation procedures to execute the plan.
  - It should be noted that the estimated total cost of the technical assistance contracts are of approximately US \$ 6.5 million, distributed in the following manner:
  - US \$5 Million from the World Bank grant, about US \$1 million from the French Development Agency grant, and US \$ 500,000 from local funds to cover for the local tax expenses.
  - The designated consultants are to submit their reports gradually in due time in accordance with their terms of references, where the revisions by the concerned institutions are expected to constitute an opportunity for a close coordination amongst the involved parties that will facilitate the decision making process regarding the electricity sector reforms.
- 5) The Comprehensive Master Plan for the Generation and Transmission of Power: Electricité de France (EDF), which was placed in charge of drafting the Master Plan from a grant financed by the French government, has submitted a draft report regarding power generation. Based on the discussions with concerned officials over the remarks, EDF issued the second version of the report in June 2008.

#### Progress of works in 2017 - contracts awarded before 2017

- The electrical transmission network expansion project: all works related to the expansion project of the electrical transmission network have been completed as specified above, except for the works regarding the installation of cables on poles in Mansourieh – Ain Saadé – Ain Najm, due to the objections expressed by local residents of the area. Efforts are currently being made to resolve the issue. Completion of the works is expected to be sorted out in 2018, if all goes well.
- National Control and Dispatch center: works started during the month of July 2006. The project is funded by the Arab Fund for Economic and Social Development and its overall cost is evaluated at approximately US \$ 25 million. After repeated halts, due to several reasons, works of the center were re-launched in year 2010. Phase one of the project, which comprised 63%, was undertaken by CDR. The specialists were relocated to the new center and commenced on the operation of the advanced control programs in 15 major substations that linked Mkalless, Ain Mraisseh, Mssaileh, Gharbieh, Onesco, and Ras Beirut substations. The executed works are now estimated at 95%. They include all the works of the center, the connections with the major substations and with the power plants as well as the local testing and commissioning in all the major substations. The delays in connecting the center with the rest of the substations go back to the incompleteness of the Mansourieh link which incorporate the fiber optic lines that run in parallel with the high tension lines. This in turn hinders the completion of the final testing and commissioning of some of the microwave lines. In addition, the need for securing some of the leased lines is currently being coordinated upon amongst EDL and the local concerned administrations. The National Control Center currently monitors and controls 62 major substations and lies in wait for 9

others until connection problems are resolved.

#### Main Projects Under Preparation (2018 – 2019) Generation sector:

- The rehabilitation of Zouk and Jiyeh power plants:  
The installed and actual capacities of the Zouk and Jiyeh power plant units are as follows:

|             | Unit number | Installed Capacity in MW | Actual capacity in MW |            | Unit number | Installed Capacity in MW | Actual capacity in MW |
|-------------|-------------|--------------------------|-----------------------|------------|-------------|--------------------------|-----------------------|
| Jiyeh plant | 1           | 62                       | 52                    | Zouk plant | 1           | 145                      | 90                    |
|             | 2           | 62                       | 38                    |            | 2           | 145                      | -                     |
|             | 3           | 69                       | 58                    |            | 3           | 145                      | 92                    |
|             | 4           | 69                       | 57                    |            | 4           | 172                      | 110                   |
|             | 5           | 69                       | 54                    |            | -           | -                        | -                     |
|             | Total       | 331                      | 259                   |            | Total       | 607                      | 292                   |

The total installed capacity of both Zouk and Jiyeh power plants are 938 MW, whereas the average effective operational capacity is 551 MW.

EDL is currently conducting the rehabilitation feasibility study for the Zouk power plant.

CDR is currently contracting with EDF to conduct a feasibility study, financed by the Arab Fund for Economic and Social Development, for the soil treatment and the removing the asbestos material in the Jieh power plant, in preparation for the complete dismantling of the plant in an environmental and secure way before a new power plant gets erected.

Another study, carried out by EDF also, was contracted by CDR to conduct a technical and economic feasibility study for erecting a new 600MW CCGT power plant in Jieh. The Study was completed by the end of year 2017.

The Arab Fund for Economic and Social Development expressed its readiness to finance the rehabilitation of all the four units of the Zouk power plant in accordance with a 5 to 6 year work plan schedule. Once fulfilled, the rehabilitation and the erection of the new power plant in Jiyeh are expected to raise the effective capacity of both plants to 1000 MW. Contract award for the rehabilitation of the Zouk power plant is expected to be granted in year 2018.

- Construction of New Generation Plants: Based on the first outcomes of the master plan conducted by EDF, various proposed options to construct new power plants are overlaid. The Ministry of Energy and Water awarded a contract for the erection of a new power plant in Deir Ammar, and another for the erection of new generation units in Zouk and Jieh power plants.
- CDR signed a contract with the consulting group "Mott Macdonald /Pan Arab Consulting Engineering/ Clyde and Co LLP" to help the Ministry of Energy and Water in November 21, 2013, to assist the Ministry of Energy and Water in preparing required feasibility studies for the addition of 1500MW of electric power capacity generation through Public Private Partnership schemes. The consultant completed the first phase tasks in July, 2014, and the second phase tasks in June of year 2015.
- Power transfer from Steamers: the contract between the Ministry of Energy and Water and one of the Turkish companies is expected to continue during year 2017. The two steamers secure close to 270MW of power in Zouk and Jieh power plants.

#### Transmission sector:

- Construction of substations in various regions:  
Amongst the current priorities are the five substations that have been determined to treat the suffocations witnessed on the transmission networks, mainly at: The Southern Suburbs (Dahieh), Bahsas (Tripoli), Marina (Dbayeh), and Ashrafieh.

#### Technical Assistance and Sectoral Studies:

- The Master Plan Study for Distribution in Beirut and its Suburbs:  
Following EDL's request from CDR to seek funding for the Master Plan study for the Power Distribution in the Greater Beirut area, the French Agency for Development (AFD) has expressed its willingness to finance the study through a grant. The consultant EDF, who prepared the Master Plan of 1998, is expected to be nominated to carry out the works, which are anticipated to be finalized in 2017.

Power Demand

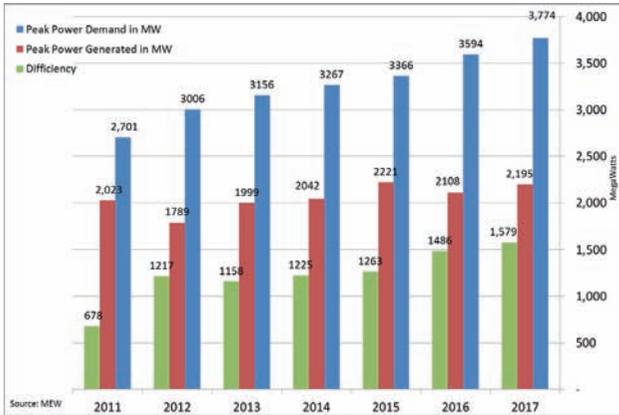


Figure no.1

Energy Purchased in GWh

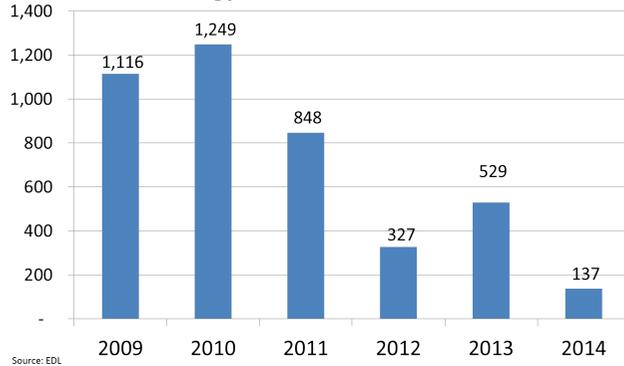


Figure no.2



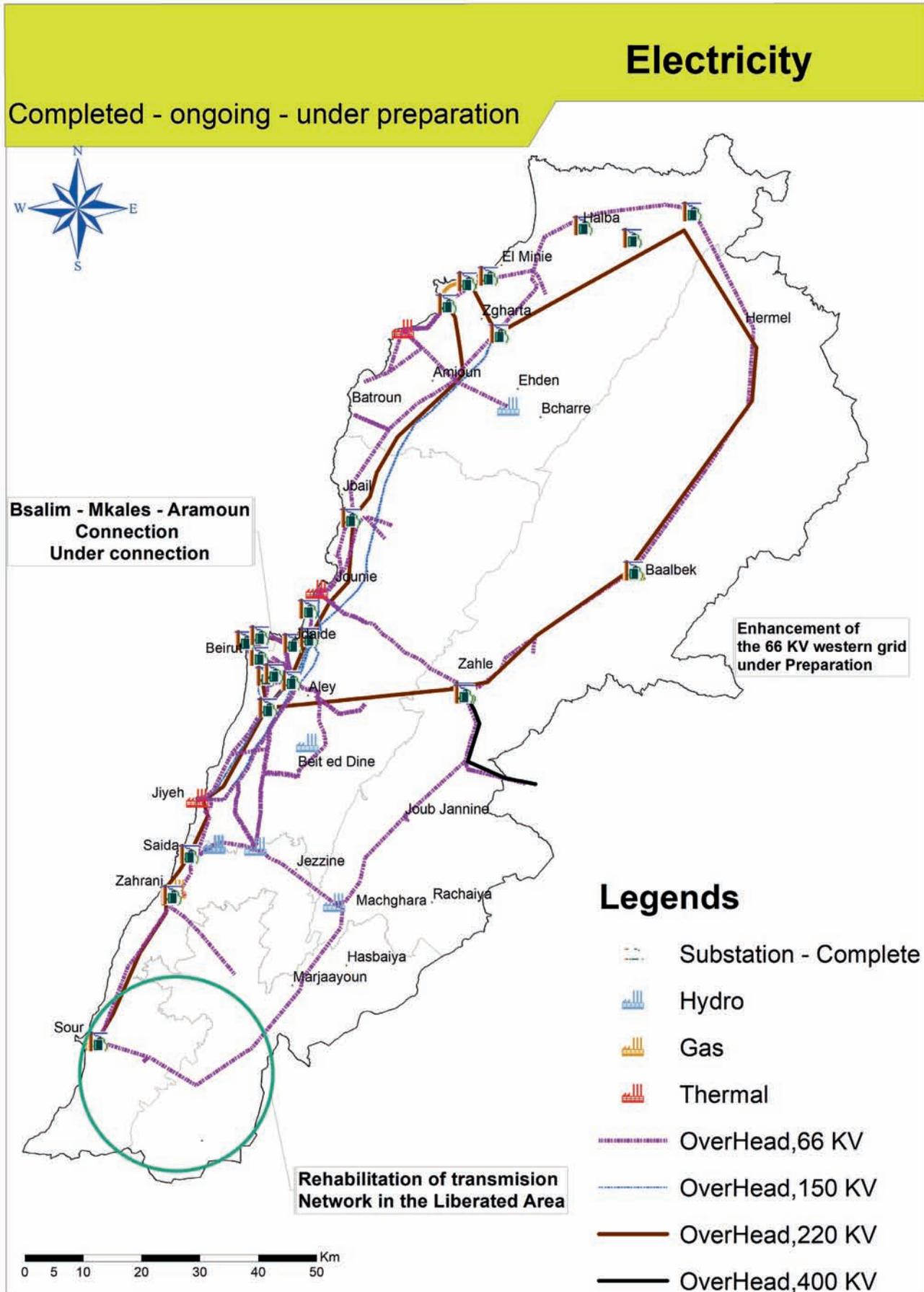
Orhan Bey Ship for Power Generation



FatimaGul Ship for Power Generation



Deir Omar Power Plant



## Post and Telecommunications

A group of contracts was awarded to foreign and local firms for the rehabilitation of the Public Switched Telephone Network (PSTN) to increase its capacity to 1,730,000 lines, i.e. the equivalent of one line for every three persons. The total cost of these contracts, which were completed at the end of 2002, amounted to about US\$ 775 million.

At the same time, a mobile telephone system (GSM) was introduced through concessions awarded to two competing operators. The two operators undertook the necessary investments and the government collects now revenue from this operation.

The government has repossessed the two mobile telephone systems, the PSTN and the GSM systems. However, several projects relating to the development of this sector are still required to render it competitive and capable of handling modern technologies, particularly in the fields of information exchange, state of the art networks and the internet.

### **Achievements during the period 1992 - 2017**

Installation of telephone exchanges (switching contracts): The related contracts and contract amendments (about US\$ 145 million) provide for the installation of 313 telephone exchanges with a total capacity of 1,142,000 lines in all regions of Lebanon. These were completed at the end of 2001. Three telephone exchanges for international calls and eight telephone exchanges for national calls have also been installed. The exchanges provide Caller Identification Presentation (CLIP), voice messaging services and 13376 Integrated Line Services Digital Network (ISDN) lines.

Three contract amendments were signed to increase the total capacity of the exchanges by 48,000 additional lines (US\$ 8.8 million) and to provide 17,100 additional ISDN lines and four new exchanges, which were installed at the end of 2002. Thus, the total number of telephone lines reached 1,190,000 and the total number of digital (ISDN) lines amounted to 30,476.

Modernization of telephone exchange programs and equipment: The telephone exchange programs and equipment have been recently updated to comply with technical developments in the telecommunications sector and to add many new services for subscribers and exchanges. The cost of these works amounted to about US \$ 25 million. The project covered all main and branch exchanges, including those designated for international telecommunications.

Rehabilitation and extension of the Public Switched Telephone Network (PSTN): This project covered the rehabilitation and extension of the Public Switched Telephone Network (PSTN), at a total cost of US\$ 550 million, for improving communications among all regions of Lebanon. It included the preparation of the studies for plans and installation of the local telephone network. The first lot of PSTN contracts covered the following components:

- Installation of 971,600 primary pairs (connection from exchanges to local distributors);
- Rehabilitation of 123 telephone exchange buildings and construction of 185 new buildings in all Lebanese regions;
- Installation of the Wireless Local Loop system. This system is suitable for rural areas where the cost of telephone line installation is high;
- Installation of advanced digital transmission systems to interconnect all Lebanese regions.

The second set of contracts was implemented in two phases by the Ministry of Telecommunications. The first phase, known as OSP-1 (Outside Plant-1) covered the installation of 200,000 lines, while the second phase, known as OSP-2 (Outside Plant-2), covered the installation of 600,000 lines in rural areas.

The first group of PSTN contracts was completed at the end of 2002, while the works of the second phase were completed at the end of 2003.

The leased lines project was also completed at the end of 2002 by the Ministry of Telecommunications at a cost

of US\$ 10 million. The project aimed to provide leased telephone lines to corporate clients.

Installation of public telephone booths: The CDR supervised the installation of 4000 public telephone booths distributed in all Lebanese regions. These works were installed by Ministry of Telecommunications (MOT) and completed by the end of 2005.

International telecommunications: Several projects for improving international telecommunications have been completed. The most important of these include:

- Installation of two submarine fiber optic cables: The first connects Tartous (Syria) with Tripoli, Beirut, Saida (Lebanon) and Alexandria (Egypt) with a capacity to handle 9,000 simultaneous calls; while the second connects Lebanon, Cyprus, Crete and France and can handle 7,560 simultaneous calls. The total cost of the project was about US\$ 12 million;
- Installation of a fiber optic and wireless connection between Beirut and Damascus with a capacity of 189 simultaneous telephone calls at a cost of about US\$ 1.34 million;
- Installation of ground earth satellite stations in Arbanieh and Jouret el Ballout at a cost of about US\$ 4 million and US\$ 5 million, respectively.

Several other contracts have also been completed:

- Installation of a control and management system for transmission and switching equipment (US\$ 577,000);
- Restructuring of the telecommunications sector, re-organization of the administration and preparation of studies for creating marketing services and commercial agencies (US\$ 7 million).

### **Posts Projects in Progress**

Postal services: A contract was signed in mid 1998 with a Canadian consortium for the operation of the postal services (mail distribution, counter services, express mail, philatelic services, etc.) in all regions of Lebanon. The consortium was responsible for rehabilitating and equipping all post office buildings, street and property numbering and mail box installation. The cost of this project was approximately US\$ 50 million. Since the contract is in the form of a concession (BOT) no cost was borne by the Lebanese Government.

## Land Transportation

### 1- Overview of the land transportation sector

In the aftermath of the Lebanese war, reconstruction projects and plans emerged successively: The Urgent Rehabilitation Program adopted by the Lebanese Government in 1991, the "Horizon 2000" program of 1993, the five-year Economic Development Plan of 1999, and the Development Program of 2003. As a consequence of the reconstruction era, the land transportation sector has witnessed, since 1992 to date, vast renovation and rehabilitation works on the existing Lebanese roads in addition to the construction of new roads. Between 1992 and 2017, the aggregate value of executed projects totaled around US\$ 2,632,53 million, of which projects worth US\$ 1,349,66 million completed up until the end of 2017 and US\$ 1,282,87 million projects that are still active to date.

Recognizing the need to develop a sustainable land transport sector, the Council for Development and Reconstruction (CDR) developed a vast array of road infrastructure projects to help achieving safe, secure and sustainable land transport system across all Lebanese regions, including inter alia the following:

- Coastal road project.
- Beirut-Syrian border road project.
- Penetrator roads connected with Beirut ring road project.
- Urban Transport Development Project (UTDP) for Greater Beirut and Mount Lebanon.
- Renovation and upgrading of Beirut road network.
- Renovation and upgrading of the road network in Beirut suburbs.
- Renovation and upgrading of main and secondary roads in some Lebanese regions.
- Construction of new main and secondary roads in some Lebanese regions.

The CDR completed parts of the above-mentioned projects, and other parts are still underway. The CDR is working on securing the technical and financial needs to award the remaining contracts and complete these projects.

### 2- Main projects achieved (1992 – 2017)

The CDR focused on the activation of the two main axes in Lebanon: the coastal road and the Beirut-Syrian border road. In this context, several projects were completed, and the remaining projects are underway on these axes to guarantee an efficient, fast and safe transportation system.

In the context of the coastal road, many contracts were executed, mainly:

- Completion of the study to implement the International Road Agreement in Lebanon.
- Rehabilitation of Sour-Naqoura road.
- Execution of works on Deir Aamar – Abdeh roads (with addendum No.1).
- Expansion and rehabilitation of the road stretching from Abdeh to Homs-Aboudieh bifurcation.
- Execution of the Abdeh-Qobbet el Choumra road within the framework of northern coastal road works extending to the Syrian borders.
- Execution of the Homs-Arida highway within the framework of northern coastal road works extending to the Syrian borders.
- Completion of the northern coastal expressway: Chekka-Tripoli-Al Bahsas section.
- Renovation of Tabarja-Chekka highway.
- Renovation of the coastal road extending from Dora to Tabarja.
- Improvement of Nahr el Kalb intersection.
- Improvement of the coastal highway in the Nahr el Kalb region.
- Rehabilitation of northern Beirut entrance, the lane extending from Dora to Tabarja.
- Repair of landslide at Adma interchange on the northern coastal highway between Tabarja and Nahr el Kalb.
- Execution of works at Nahr el Mot Interchange (with addendums, 1, 2 and 3).
- South highway, Saida sea corniche section.
- South highway, sections of Zahrani, Sour, Cana crossing, Phase 1: Zahrani-Babilieh
- South highway, sections of Zahrani-Sour-Cana crossing, Phase 2: Babilieh-Abou el Aswad.
- Installation of street lighting and execution of road traffic safety works for Phase 3 of South Highway, Zahrani-Sour-Cana crossing between Abou El Aswad interchange and Burj Rahal intersection; and completion of unfinished street lighting and road traffic safety works of Phase 2 on this highway, extending from Babilieh interchange to Abou el Aswad interchange.

- Execution of phase 4 road works on the South Highway Zahrani-Sour-Cana crossing between Litani Bridge and Burj Rahal main road.
- Reconstruction of Al Masbah bridge and the bridge located near the Ministry of Displaced on top of South-Beirut highway in Damour.
- Execution of phase 5 road works on the Saida sea corniche including construction of a bridge in Sinniq region, connecting the coastal road to the South highway.

In the context of Beirut-Syrian border road:

Several contracts were executed, mainly:

- Execution of works complementing the project aimed at providing road traffic safety installations and equipment on the border road extending from Lebanon to Syria in Masnaa Region.
- Execution of Sofar Bridge reconstruction project and a section of the highway that was destroyed during July 2006 Israeli attacks.
- Renovation and asphaltting of the Damascus road, Hazmieh-Saoufar section.
- Renovation and asphaltting of the Mdeirej-Masnaa road.
- Execution of Sofar Bridge reconstruction project and a section of the highway that was destroyed during July 2006 Israeli attacks (including addendum No.1).
- Completion of unfinished works within the framework of Sofar Bridge reconstruction project and a section of the highway damaged by the July 2006 Israeli attacks (including addendum No.1).
- Bhamdoun internal road improvement works as part of the project intended to expand and rehabilitate the current Damascus road (Hazmieh-Sofar Section) (With addendums No.1 and 2).
- Works to expand and rehabilitate the current Damascus road – Section 3 – Aley-Sofar (with addendums 1 and 2).
- Execution of works to expand and rehabilitate the Hazmieh-Jamhour road – Phases 1 and 2 (Execution of Camille Chamoun Boulevard – As-Sayad roundabout works (104 km) with addendums 1-5).
- Supply of road safety tools and equipment at the Lebanese-Syrian border in the region of Masnaa.
- Execution of works complementing the project intended to supply road safety tools and equipment at the Lebanese-Syrian border in the region of Masnaa.
- Completion of the expansion and renovation of Rayak-Baalbek section (from Douris to Baalbek with Baalbek entrance from Tell Aammam intersection to Rayak) as part of the project intended to rehabilitate the Chtaura-Rayak-Baalbek Syrian border road.
- Renovation of Camille Chamoun Boulevard between Chevrolet intersection and Galerie Semaan intersection.
- Renovation and expansion of Taadod-Rayak road, within the project of Chtaura-Rayak-Baalbek-Northern Syrian border, sections 1 and 2.
- Execution of remaining road rehabilitation works at Baalbek east entrance.
- 

The problem of transportation in urban areas is exacerbating, especially within Greater Beirut and its surroundings, where private cars constitute the main transport means, something that will necessitate, in the absence of a public transportation system, the creation of additional spaces for roads and car parks in addition to the adoption of an advanced traffic management system.

To face this challenge, the CDR developed the Urban Transport Development Project (UTDP) in Greater Beirut and Mount Lebanon.

Urban Transport Development Project for Greater Beirut and Mount Lebanon:

This project aims at facilitating the traffic flow within Greater Beirut and is composed of three components:

- Improvement of main traffic axes, including construction of bridges and tunnels at 19 intersections and execution of related site works along main roads.
- Installation of 220 traffic lights, 30 traffic-monitoring cameras, traffic signs and road markings, creation of a monitoring and management center for traffic circulation and improvement of pedestrian walkways.
- Car parking management program with parking meters for 5000 cars.

In the context of the Urban Transport Development Project for Greater Beirut and Mount Lebanon, the following projects were executed:

- Dora bridge.

- Antelias bridge.
- Mathaf intersection.
- Bchamoun-Aramoun.
- Hayek bridge.
- Organization and launching of an awareness campaign.
- Traffic police training.
- Installation of traffic lights and traffic- closed-circuit television (CCTV) cameras (addendum number 1) (civil works and installations).
- Installation of road-side park meters.
- Supply of computers and other equipment to the Lebanese Traffic Management Center.
- Provision of training to several Internal Security Forces officers and police on how to manage traffic and handle traffic congestion scientifically and professionally.
- Procurement of motorcycles to the Internal Security Forces (Groups 1 and 2).
- Procurement of wireless devices for the Internal Security Forces.
- Rehabilitation of the Dekwaneh square roundabout and its subsidiary roads.
- The underpass project on Bechara El Khoury-Independence Avenue intersection.
- Moucharafieh Bridge (the overpass works on Chatila – Kafaat Boulevard – Chiyah –Moucharafieh intersection).
- Project intended to address the problem of low altitude under the Beirut River Bridge on the Dora-Qarantina Highway, and under the bridge leading to Burj Hamoud over Emile Lahoud and Beirut River Highway.

Beirut entrances connected to Ring Highway:

The ring highway encircling Beirut and the series of penetrators connected to this highway are anticipated to reduce traffic congestion at the Beirut access points and facilitate traffic between the North and the South. Detailed designs of the penetrator road network were divided into 3 sections:

- Beirut Northern access point
- Beirut Central access point
- Beirut Southern access point

The major closed contracts include the following:

- Execution of the underpass beneath the Mar Mikhael intersection, within the framework of the Urban Transport Development project.
- The Antelias bridge, within the framework of the Urban Transport Development project.
- The underpass beneath the Tayouneh roundabout, within the framework of the Urban Transport Development project.
- Provision of furniture to the Traffic Management Center.
- Provision of computers and other devices to the Lebanese Traffic Management Center.
- The underpass and the over path on the intersection between the airport road and Chiyah boulevard.
- Tiro road.
- Adlieh connector.
- Haret Hreik-Airport connector.
- Hazmieh-Airport connector (between Camille Chamoun Boulevard and Haret Hreik intersection).
- Cocody-Cola 1 and 2, in addition to Cocody interchange.
- Khaldeh-Cocody road.
- Chatila roundabout.
- Chatila-Kafa'at road parallel to Nahr Beirut (PN3).
- Adlieh-Damascus road (A1) extending to as-Sayad interchange.
- Execution of bridge and tunnel works at Mkalles roundabout (with addendums 1 and 2).
- Reconsideration of the study pertaining to Charles Helou interchange connecting Beirut-Tripoli highway "Beirut Port-Nahr el Mot" section with Charles Helou Boulevard next to the Lebanese Emigrant Statute, which is ratified by Decree No. 9308, dated 08/10/1996.
- Execution of the project intended to expand a section of the Beirut-Tripoli Highway, extending from Qarantina Bridge to Charles Helou Station for Travel and Land Transport.
- In the context of the Metn expressway:

- Landslides repairs on the Metn Highway Jouret El-Ballout – Baabdat section.
- Site works for wastewater evacuation in Mar Chaaya to avoid causing damage to the Metn expressway within the area of Mar Chaaya-Aatchaneh intersection.
- Grubbing of the Bqaile'-Sannine road within the Upper Mountains Road Project (with addendums 1 and 2).
- Roumieh – Beit Mery interchange and Kanabet Broumana bridge works (with addendums 1-2-3).

Rehabilitation of roads in Beirut suburbs:

The major closed contracts include the following:

Northern suburbs: works on the Burj Hammoud, Jdeideh and Zalka road sections, roads parallel to Nahr el Mot and Nahr Antelias, roads extending over Dbayeh section, Nahr Beirut-Dora road and the road that replaced the railway track inside Burj Hamoud. Rehabilitation works of Sin el Fil road and Saloumi-Naba'a-Nahr el Mot road. Southern suburbs: works completed to date include: road networks located within the range of Chiyah Boulevard and adjacent streets axis, Choueifat-Khaldeh road, Haret Hreik storm water drainage tunnel, as well as sections of Mreijeh, Kassis, Ghobeiri, Haret Hreik, Borj el Brajneh, Furn el Chebbak and Ain el Remmaneh. Also, the rehabilitation works of Jamous roads and their associated public services were completed.

Rehabilitation of primary and secondary roads network and creation of main and secondary roads in the Lebanese regions: Major closed contracts include the following:

- Execution of site works at Gebrayel passageway, Rahbeh's entrance and passageway, and Birkayel's passageway and an internal road in Fnaideq.
- Rehabilitation of Beit el Faqs-Qarsita-Sahet Nemrine road.
- Two gyratories in Hadeth el Joubbe and Hasroun and the Diman road (Qadisha roundabout).
- Ehden gyratory works – Phase 2.
- Rehabilitation of Nahr Ibrahim-El Adra road.
- Execution of remaining works of Chnaniir-Dlebta project.
- Halba-Bireh-Qobbayat road, including two bridges in Qoubbayat.
- Road Connectors works in Bcharre.
- Upgrading and expansion of al-Madfoun-Kfifan road.
- Upgrading and expansion of Zgharta-Ras Kifa road.
- Ayto-Ehden road.
- Rehabilitation of Aardat-Mejdalya road.
- Grubbing and construction of the road of Daael - Basatin al Ossi - Beit Chlala – Tannourine El Tahta.
- Ehden gyratory – Phase I.
- Ras Kifa-Ayto road.
- Kfar Harra-Bire.
- Chadra-Mqaible.
- Andaket-Kounieh.
- Akroum-Kfartoun.
- Aardat-Mejdalya.
- Execution and asphaltting of Beit Mery road.
- The new road extending between Jounieh-Bkerke-Harissa.
- Ghazir-Kfour-Fatqa connector.
- Jeita-Aintoura roundabout connector.
- Ajaltoun interchange.
- Rehabilitation of the road extending from Dbayeh to Antelias and Rabieh-Naccache connector.
- Deek el Mehdi & Naccache - Rabieh intersection.
- Beit el Heith – Qartaba project (Phase I extending from Beit el Heith to Sawaneh – 5km + Addendums 1,2,3,4 + Section II).
- Execution of works to rehabilitate the two wastewater treatment plants in Jbaa, Aintourin, implemented as part of Ehden gyratory project.
- Rehabilitation of Joun-Zaarouriye-Zaitouniye road (with addendums 1 and 2).
- Bteghrine Zaarour connector.
- Jouret el Balout –Deir Mar Chaaya connector and Deir Mar Chaaya –Aatchaneh, Baabdat Connector and Deir Mar Chaaya Baabdat connector.
- Works at Gebrayel passageway, Rahbeh passageway and entrance, Berqayel passageway and an internal road in Fnaideq.

- Execution of remaining works of the project intended to grub the road extending from Mrah el Sreij-Bakhoun- Taran to Hazmieh Bridge.
- Becharre gyratory (with addendum 1).
- Al Bahsas – Kousba road (with addendum 1).
- Rehabilitation of Beit el Faqs-Qarsita-Sahet Nemrin road.
- Rehabilitation of Jeita-Ouyoun el Siman road.
- Grubbing of Monjez-Aboudieh road (13 km).
- Execution of the works of the project intended to grub the Dae'el-Bejdarfel road within Batroun-Dae'el road (with addendums 1 and 2).
- Rehabilitation of Saadiyat-Ain el Hor road.

In the context of Sir El Dannieh-Jbab el Homor-Hermel road project:

- Execution of Jbab el Homor-Hermel road.

In the context of Lebanon Roads Rehabilitation Project:

Conduct a comprehensive survey on the status of roads stretching over 6000 km in Lebanon and identify the coding and classification of the status of each road according to IRAP SRS system.

It is worth mentioning that this report outlines the projects that have been referred to the CDR by the Infrastructure Projects Execution Council, and the Construction Projects Council for Greater Beirut:

In the context of Transport Development in Greater Beirut:

- Rehabilitation, asphaltting and lighting of Kuwait Street and its forks.

In the context of International Roads Rehabilitation and Improvement project and the Coastal Road project:

- South highway Jiyeh-Zahrani section (Phase 1).
- South highway project, Saida coastal road (phase 2).
- South highway project, Saida coastal road (phase 3).
- Deir Zahrani-Nabatiyeh road and Deir Zahrani-Azze Romine road.
- South highway section of Rmeileh intersection and Sinniq connector.
- Construction of Jadra entry and exit points.
- Construction of Qalamoun and Balamand entry and exit points, with pedestrian walkways in Qalamoun and Na'emeh.
- Lighting installations on South highway Jiyeh-Zahrani-Abou el Aswad section.
- Lighting installations on South highway Jiyeh-Awali and Sinniq-Zahrani section.
- Road circulation signage and protection barriers on South highway Jiyeh-Zahrani section.
- Execution of phase 4 works at the South Highway Zahrani-Sour Section-Qana diversion between Litani bridge and Burj Rahal main road.

Within Beirut-Damascus road (Masnaa) project:

- Hadath -Masnaa highway, execution of Sofar-Mdairej connector.
- Aley access points project.
- Reconsideration of plans and land acquisitions pertaining to Sections 1, 2, 3, and 4 of the project on the planning and upgrading of the road extending from Zouk Mosbeh – Mairouba- Kfardebian – to Tibeh (Baalbek), reconciliation contract.
- Execution of the project aimed at completing the Hazmieh connector-Rehabilitation of the old Damascus road in Hazmieh.

### 3- Work progress during 2017 in contracts awarded before 2017

Progress is being made with the following projects:

In the context of the Urban Transport Development Project in Greater Beirut

- Addendum 4 to the project intended to install traffic lights & traffic monitoring cameras and build the traffic management building.

In the context of the coastal road project

- Completion of necessary works as part of Sour-Naqoura project.
- Execution of section 1 works of phase 5 extending from Abassiye to Cana intersection (from 25+900 to 30+300) as part of the south highway, Zahrani section, Sour-Cana Bifurcation.
- Execution of Tripoli west ring road (Mina-Beddawi section) + Addendum 1.

In the context of Beirut- Damascus Road (Masnaa) Project:

- Execution of the Arab Highway Project: Mdeirej-Jisr el Namliyah-Chtaura-Taanyel section, Phase 1 (Jisr el Namliyah (Bouarej)-Chtaura-Taanyel section) + Addendums 1,2 and 3.

- Execution of the Taanayel-Masnaa section of the Arab highway + Addendums 1 and 2.
  - Baalchmay-Sofar section (6.5 km).
  - Execution of the works of part II of the various construction projects at the Masnaa border point (with Addendum 1).
  - Execution of the necessary geotechnical surveys to study the landslide in Jdita, Bouarej, Mraijet, Rmatieh in the outskirts of the Arab highway project (Mdairej-Taanayel section).
- In the context of the Chtaura-Baalbek-Syrian Border (Qaa) Project:
- Rehabilitation of Karak – Hamra Plaza – Ablah – Taadod – Rayak road + Addendum 1.
- In the context of the Metn Express Highway Project:
- Execution of the works of the second phase of the planning of Roumieh – Beit Mery road.
  - Execution of Mar Chaaya – Aatchaneh – Ain Alaq connector.
- In the context of miscellaneous roads across the Lebanese regions:
- Execution of road works in Hbarieh-Chebaa and Zaghla-Chouaya-Chebaa (with Addendums 1, 2 and 3).
  - Expansion and renovation of Amchit-Maifouq road (with addendums 1, 2 and 3).
  - Execution of the works of new roads connectors linked with Aamchit – Maifouq road Project.
  - Execution of Beit Ayoub-Fnaideq road.
  - Addendum no.2 to the contract related to the execution of works in the second optional section of Hbarieh-Chebaa and Zaghla-Chouaya-Chebaa projects.
- In the context of Sir El Dannieh- Jbab el Homor- Hermel road Project:
- Sir El Dannieh-Jbab el Homor road.
  - Execution of Sir Al Dannieh-Bqarsouna-Qarsita road.
  - Addendums 2, 3, 4 to the contract related to the execution of additional works as part of Sir Al Dannieh-Bqarsouna- Qarsita road.
- In the context of Jounieh-Bkerke-Harissa road
- Rehabilitation and expansion of Daroun-Harissa road and works supervision.
- In the context of the Upper Mountains Road project
- Addendum 3 to the contract related to the grubbing of the Bqaile'-Sannine road.
- In the context of the Batroun-Tannourine express road project
- Addendum 2 to the grubbing of the road of Daeel-Bejdarfel road.
- In the context of Qadisha Roundabout Project:
- Execution phase II works of Hadath el Jubba and Hasroun gyratories and Diman road.
- In the context of roads rehabilitation project in Lebanon
- Conducting a comprehensive survey of the status of roads in the Lebanese regions stretching over 600 kms, identifying classification criteria and coding and classifying each road status according to IRAP SRS.

#### 4- Main contracts awarded during 2017

In the context of the coastal road:

- Execution of the works of section 2 of Phase V on the public road of Burj Rahal extending to Chabriha, as part of the South highway execution project.
- Execution of works on Tripoli highway between Beddaoui and Aboudieh, Phase I, Mouhamara-Koueikhat section.

In the context of Beirut – Damascus (Masnaa) road:

- Completion of expansion and rehabilitation of river streams and installation of rain water drainage channels in the Litani basin area.
- Completion of the works that were not executed under the contract related to the expansion and rehabilitation of Baalchmay - Sofar road connector, and the contract related to Bhamdoun internal road improvement.

In the context of the two projects related to Batroun – Tanourine expressway:

- Rehabilitation and expansion of Tannourine el Tahta-Tannourine el Fawqa road.

In the context of Qadisha Roundabout Project:

- Execution of works at the connector of Dawalib Ehdn and Mar Sarkis spring.

In the context of rehabilitation of Saadiyat-Ain el Hor road:

- Rehabilitation of Ain el Hor – Daraya – Anout - Zaarouriye bifurcation road.
- In the context of rehabilitation and expansion of Joun-Zaarouriye-Zaitouniye road:
- Execution of remaining works of the project intended to rehabilitate Joun-Zaarouriye-Zaitouniye road.

#### 5- Main projects under preparation for 2018-2019

- Tripoli East Highway project (Al Bahsas-Beddawi).
- Mdeirej (Hamana)-Jisr el Namliye (Bouarej) section of the Beirut-Damascus road (Masnaa).
- Construction of a road between Jamhour and Baalchmay (12.7 km) (Arab highway).
- Construction of Hadath-Dekwaneh road (6.2 km) (Beirut ring road).
- Ain Alaq-Bteghrine road within Metn expressway project.
- Protection and road slide repair work in Bjaqout.
- Galerie Semaan intersection.
- Sir road project.
- Bqerqasha gyratory.
- Cedars road.
- Ghazir-Jdeidet Ghazir road.
- Expansion and rehabilitation of Mairouba - Nahr el Dahab - Jouret el Termos – Hadchat - Yahchouch road.
- Haret Sakhr – Daroun road.
- Main intersections on Jeita – Faraya road (Jeita-Sheile-Balloune-Daraya-Ajaltoun).
- Rehabilitation of Jbeil – Anaya road.
- Completion of Bir el Heith-Qartaba road.
- Arab Highway, Beddawi-Abboudieh section.
- “Roads and Employment Project”.



Amchit - Mayfouq Road



The Summits - Sanine Road



Bir Al Hayth - Qartaba Road

**Major contracts awarded during 2017**

| Project   | Contract Value (USD) | Source of funding | Expected start date | Expected delivery date |
|---|----------------------|-------------------|---------------------|------------------------|
| In the context of the Coastal road  |                      |                   |                     |                        |
| Execution of the works of section 2 of Phase V on the public road of Burj Rahal extending to Chabriha, as part of the South highway execution project   | 18,870,122           | IDB               | February 2017       | September 2019         |
| Execution of works on Tripoli highway between Beddaoui and Aboudieh, Phase I, Mouhamara-Koueikhat section   | 56,700,419           | LP                | June 2017           | July 2020              |
| In the context of Beirut – Damascus (Masnaa) road   |                      |                   |                     |                        |
| Completion of expansion and rehabilitation of river streams and installation of rain water drainage channels in the Litani basin area   | 12,610,412           | LP                | September 2017      | March 2019             |
| Completion of the works that were not executed under the contract related to the expansion and rehabilitation of Baalchmay - Sofar road connector, and the contract related to Bhamdoun internal road improvement | 11,049,833           | CDR<br>KFAED      | June 2017           | July 2019              |
| In the context of the two projects related to Batroun – Tanourine expressway  |                      |                   |                     |                        |
| Rehabilitation and expansion of Tannourine el Tahta-Tannourine el Fawqa road  | 11,477,275           | CDR               | September 2017      | October 2019           |
| In the context of Qadisha Roundabout Project  |                      |                   |                     |                        |
| Execution of works at the connector of Dawalib Ehden and Mar Sarkis spring.   | 6,266,551            | CDR               | June 2017           | July 2019              |
| In the context of rehabilitation of Saadiyat-Ain el Hor road  |                      |                   |                     |                        |
| Rehabilitation of Ain el Hor – Daraya – Anout - Zaarouriye bifurcation road   | 6,677,890            | CDR               | June 2017           | July 2019              |
| In the context of rehabilitation and expansion of Joun-Zaarouriye-Zaitouniye road   |                      |                   |                     |                        |
| Execution of remaining works of the project intended to rehabilitate Joun-Zaarouriye-Zaitouniye road  | 4,150,814            | CDR<br>SFD        | January 2017        | November 2017          |

**Major projects under preparation for 2018- 2019**

| Project   | Approximate amount (USD) | Source of funding          | Expected start date | Expected delivery date |
|---|--------------------------|----------------------------|---------------------|------------------------|
| East ring road of Tripoli (extending from Al Bohsas to Beddawi)               | 100,000,000              | Islamic Development Bank   | September 2018      | September 2022         |
| Mdeirej (Hamana)-Jisr el Namliye (Bouarej) on Beirut-Damascus road (Masnaa)   | 45,000,000               | Saudi Fund for Development | January 2019        | February 2022          |
| Construction of a road between Jamhour and Baalchmay (12.7 km) (Arab highway) | 300,000,000              | Proposed to the World Bank | December 2019       | December 2021          |
| Construction of Hadath-Dekwaneh road (6.2 km) (Beirut ring road)              | 250,000,000              | Proposed to the World Bank | December 2019       | December 2022          |
| Galerie Semaan overpass   | 10,000,000               | World Bank                 | December 2019       | December 2021          |
| Sir road project  | 30,000,000               | Islamic Development Bank   | April 2019          | April 2021             |

|  |            |  |              |              |
|--|------------|--|--------------|--------------|
| Ain Alaq-Bteghrine road- Metn expressway project   | 55,000,000 | Ministry of Public Works' Program Law 326/2001   | July 2019    | July 2020    |
| Protection and roadside repairs in Bjaout  | 3,500,000  | Public Budget reserves   | June 2019    | June 2020    |
| Completion of Bir el Heith – Qartaba road  | 20,000,000 | Islamic Development Bank   | June 2018    | June 2020    |
| Bqerqasha gyratory   | 10,000,000 | Islamic Development Bank   | June 2018    | June 2020    |
| Cedars road  | 15,000,000 | Ministry of Public Works' Program Law 326/2001   | January 2019 | January 2021 |
| Ghazir – Jdaidet Ghazir road   | 6,000,000  | Ministry of Public Works' Program Law 326/2001   | January 2019 | January 2021 |
| Expansion and renovation of Mayrouba-Nahr el Dahab-Jouret el Termos-Hadchat-Yahchouch road | 20,000,000 | Ministry of Public Works' Program Law 326/2001   | January 2019 | January 2021 |
| Renovation of Haret Sakhr-Daroun road  | 6,000,000  | Proposed to the Saudi Fund for Development   | March 2019   | March 2021   |
| Main intersections on Jeita - Faraya road (Jeita-Sheile-Balloune-Daraya-Ajaltoun)          | 12,000,000 | Proposed to the Saudi Fund for Development   | March 2019   | March 2021   |
| Rehabilitation of Jbeil-Aanaya road  | 12,000,000 | Proposed to the Saudi Fund for Development   | March 2019   | March 2021   |
| Roads and Employment Project   | 50,000,000 | Proposed to the World Bank, Japanese International Cooperation Agency (JICA), European Investment Bank | June 2018    | June 2020    |



Arab Highway



Ehdin - Mar Sarkis Road



Ehdin - Mar Sarkis Road

## Maritime Transport

### **Sector Overview**

The Beirut Port Authority and the Tripoli Port Authority monitored large infrastructure contracts awarded for the modernization of the Port of Beirut and the Port of Tripoli, funded by foreign funds with an approximate total value of US \$175 million. Most of the works under these contracts have been completed. Going forward, the Lebanese Government orientation in this sector will be channeled towards the development and expansion of the port of Tripoli to become a maritime transport hub for transit to Iraq.

### **Main achievements for 1992 - 2017**

#### **Rehabilitation and Expansion of the Port of Beirut:**

This project comprised the dredging and rehabilitation of Basins 1, 2 and 3, in addition to the completion of Basin 4 works to be used as a container terminal, alongside the completion of the breakwater execution. The contract was awarded to the Entre Canales/Cubiertas joint venture, and works started in early 1997. The Beirut Port Authority received a technical assistance from the Marseille Port Authority with regard to overall supervision of the studies, while Dar al Handassah (Shaer and Partners) was commissioned to supervise the execution of works. The project value reached US\$91.1 million, partially funded by a loan from the European Investment Bank (€45 million), while the remaining part of funds was covered by the Beirut Port Authority out of the Port's revenues.

At a later stage, the Beirut Port Authority awarded a contract for the execution of the first phase of Basin 5. The quay that will be constructed in this phase is 600m long and 15m deep and will be used as a container terminal. The total cost of this project is estimated at US \$50 million, auto-financed by the Port revenues.

After procuring and installing basic equipment at the port container terminal, and therefore preparing the necessary requirements for the terminal to become operational, the Beirut Port Authority (The Temporary Administration for the Operation and Exploitation of the Port of Beirut) released a call for tenders in mid-2004 to outsource the terminal management and operation.

In August 2004, a contract was signed with the winning bidder (a joint venture between the British MERSEY (MDHC) and the American (IMA). The company started its actual operation at the Port of Beirut on 14/12/2004 under the name of Beirut Port International Management and the volume of work is expected to exceed 500 thousand TEU in 2005.

#### **Rehabilitation and Modernization of the Port of Tripoli:**

In order to ensure maritime navigation safety, works started in the autumn of 1997 in the depth of the commercial basin and the port's access channel to dredge their sediment and debris. Additionally, the wrecks of five vessels sunken in the port's basin were removed and the basin was dredged to a depth of 10m, with a US\$ 2 million cost.

The Lebanese Government commissioned the French consulting firm SOGREAH to prepare a master plan for the development of the Port of Tripoli (funded by the Financial French-Lebanese Protocol). The preparation of this master plan is completed. It comprises the following:

- Increase of the access channel depth from 10 to 13 meters
- Construction of a 600m long quay extending from the existing port towards Abu Ali river
- Construction of a detached breakwater (1000 meters) and completion of construction of the northern breakwater near Abu Ali River.

As a first step, works started in 2001 to deepen the basin and the access channel, with an approximate cost of US\$ 20 million.

#### **The Port of Tripoli Development Project:**

In order to prepare the Master Plan for the development of the Port of Tripoli, the Marseille Port Administration conducted a feasibility study for the expansion of this port, with a €45 million loan from the European Investment Bank. These works have been divided into two groups:

Group 1: Comprises works to expand the temporary road for the existing main breakwater and extend the current main and secondary breakwaters. Group 1 works were awarded in April 2004 to Jan de Nul/Hydromar merger, with an approximate value of US\$ 23 million. Additionally, the supervision of these works was outsourced and funded by the revenues of the Port of Tripoli. The execution of this group was concluded.

Group 2: Comprises works to construct a new 600m long quay, as well as works to excavate and deepen the port basin to accommodate ships requiring up to 15 meters of depth. The works of Group 2 and the supervision of these works were completed by the China Harbour Engineering Company, funded out of the revenues of the Port of Tripoli, after an agreement was reached between the contractor and the Port of Tripoli.

Preparation of necessary studies and tender document related to land reclamation at the Port of Tripoli to accommodate an economic zone.

Land reclamation works near the Port of Tripoli have been completed and the reclaimed land will be dedicated to the special economic zone.

The feasibility study related to the transformation of the port of Tyre into a tourist destination has been completed. A feasibility study and an Environmental Impact Assessment related to the construction of a tourist port in Jounieh have been completed.

#### **Main contracts signed in 2017**

The economic feasibility study related to the second phase of the new Sidon commercial port.

#### **Main projects under preparation in the horizon of 2018 - 2020**

After completion of the feasibility study related to the transformation of the Commercial Port of Tyre into a tourist destination, the file was submitted to the Ministry of Public Works and Transport which outsourced the first work phase.

After completion of a feasibility study and an Environmental Impact Assessment related to the construction of a tourist port in Jounieh, the project's detailed studies are expected to be outsourced to lay the ground for its execution.

## **Air Transport**

### **1- Overview of the Air Transport Sector**

The Rafic Hariri International Airport Master Plan aimed at increasing the Airport's handling capacity to 6 million passengers yearly, as a first phase, and thereafter increasing the yearly capacity gradually to reach 16 million passengers by 2035.

### **2- Main achievements during 1992 - 2017**

#### **Rafic Hariri International Airport (referred to in this report as the "Airport")**

The first phase of the project comprised the construction of a new passenger terminal and two new runways: a runway at the east of the existing runway, and another runway protruding into the sea, built on land reclaimed, in order to route the aircrafts away from the skies of the capital Beirut. Consequently, the Airport is now able to handle around thirty planes simultaneously, stationed either at the embarkation gates or in the tarmacs.

Works started in 1994 and were all completed; some additional works are underway. Works of the first phase of the passenger terminal were completed and the terminal has been operational since 1998. The implementation of the second phase of the passenger terminal increased the passenger capacity to 6 million per year. At the end of January 2000, works at other facilities were outsourced, including two additional luggage conveying systems; these works were concluded on June 30, 2000. The west runway has been operational since 2001.

The works executed in other parts of the Airport are as follow:

- Airport Radar Building: works completed in September 1996.
- Civil Aviation Safety Center: works completed in October 1996.
- Civil Aviation Maintenance building: works completed in June 1997.
- Rescue and Firefighting Training building: works completed in July 1997.
- Ground Firefighting Services building: works completed in July 1997.
- Automated Mail Processing Center: works completed in November 1997.
- Power Generation building: works concluded in December 1997.
- Infrastructure for passenger terminal and utilities buildings (electricity, water, main and internal roads), which were put in service in the beginning of 1998. The west loop leading to passenger terminal was concluded in February 2000.
- Two main water reservoirs and water towers are now fully operational.
- Additional buildings and airport guard and security buildings were handed-over to the Airport

- administration.
- Two tunnels in Ouzai, under the west runway were opened to traffic in December 1997.
  - The Ouzai-Khaldeh interchange at Costa Brava was opened to traffic in December 1997. Khaldeh interchange was open to traffic in September 1999 and the link with old Sidon road was completed in December 1999.
  - The Ouzai road embankment works were completed in 2000.
  - Car parking and aircraft fueling facilities were completed based on a concession contract (Build Operate Transfer). Moreover, various contracts for consultancy services or supply of aeronautical equipment have been awarded (funded by the Lebanese-French Financial Protocol).
  - Consultancy services for the modernization of the Lebanese Civil Aviation Authority.
  - Training equipment for the Civil Aviation Safety Center (four contracts).
  - Meteorological equipment (contracts for Phases 1 and 2).
  - Construction of a VIP pavilion in March 2002.
  - Another VIP lounge (General Aviation) to be delivered soon.
  - Landscaping works at the VIP pavilion.
  - Periodic routine air inspection of air navigation aiding devices (maintenance and operation).
  - Consultancy services in the arbitration case related to Airport rehabilitation and modernization.
  - Project intended to improve maritime protection and build a dock for boats of the maritime rescue station at the new western runway of the Airport.
  - Supply of an air navigation information system with appendixes 1, 2 and 3.
  - Operation and maintenance services at the new Airport building and ancillary facilities with appendixes 1 and B, in addition to oversight tasks.
  - Oversight services over the rehabilitation of the Airport radar control and surveillance system.
  - Geophysical surveys of the new eastern runway area.
  - Works to upgrade the circular Airport fencing.
  - Operation and maintenance services at the new Airport building and ancillary facilities with appendixes D, E, F, G, in addition to oversight tasks.
  - Periodic Routine air inspection of air navigation aiding devices with appendixes 1/2/3/4 and 5.
  - Oversight over the operation and maintenance of the Airport facilities and equipment until 30/6/2010.
  - Oversight over unfinished works of the projects related to the execution of civil works at the VIP pavilion – General Aviation (GA) and appendixes.
  - Preparation of technical and economic feasibility studies and detailed designs that fall under the Airport Modernization Program.
  - Oversight over the project on the rehabilitation of the Airport radar control and surveillance systems.
  - Oversight over the operation and maintenance of the Airport facilities and equipment.
  - Financial and engineering assessment of the VIP pavilion civil works project.
  - Rehabilitation of the asphalt pavement of the taxiway (M) in the section parallel to the Airport general aviation area.
  - Tender document to outsource the complimentary works of the geophysical surveys of the eastern runway.
  - Rehabilitation of the control and surveillance systems of the Airport Radar (Annex No.1).
  - Monitoring of Airport Radar control and surveillance systems' rehabilitation.
  - Monitoring of operation and maintenance of Airport facilities and equipment.
  - Operation and maintenance of the new Airport building and ancillary facilities (Appendix C).
  - Preparation of a comprehensive tender document to outsource the operation and maintenance of the Airport facilities and equipment.
  - Preparation of a tender document to outsource works of the Project related to the Lighting Control and Monitoring System (LCMS) of the Airport runways and taxiways.
  - Unfinished works of the projects related to the execution of civil works at the VIP pavilion – General Aviation (GA) and appendixes.
  - Rehabilitation and modernization of Airport Data Exchange Center (AMSS).

- Embankment works for the Ghadir culvert within the vicinity of the Airport through open-air digging.
- Operation and maintenance of the Airport buildings and facilities – Reconciliation Contract.
- Shifting the lighting supply of the western runway /35 from the old inverter to the uninterruptable power generator (UPS) of the maritime runway 16/34.
- Project related to the introduction of additional information services at the Airport Data Exchange Center (AMSS).
- Project related to the Lighting Control and Monitoring System (LCMS) of the Airport runways and taxiways.
- Replacement of the old system of the medium voltage network of the Rafic Hariri International Airport.
- 

### 3- **Main contracts signed in 2017**

Operation and maintenance of Beirut International Airport buildings and facilities

### 4- **Work progress in 2017 in contracts signed before 2017**

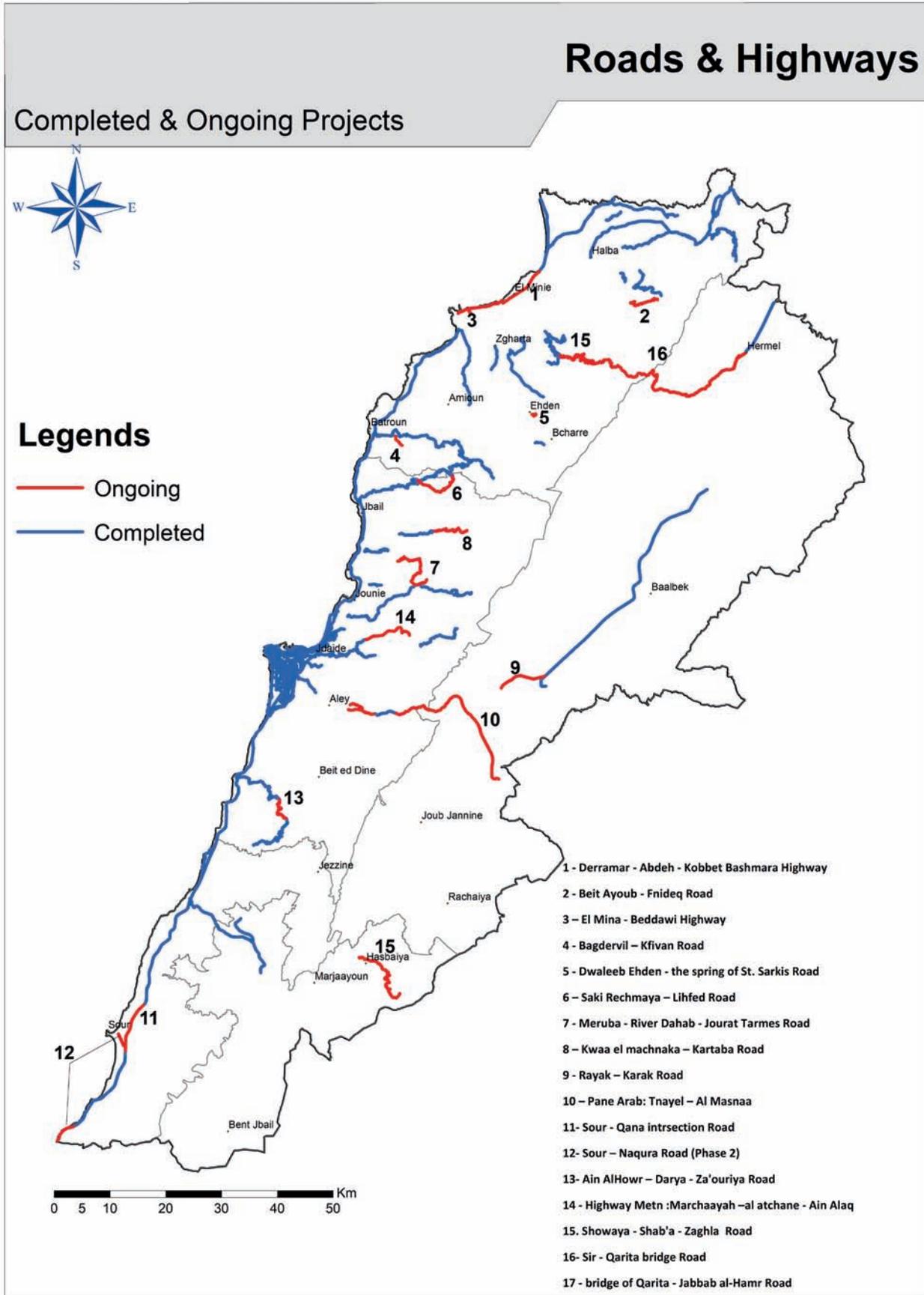
The following projects are still under execution:

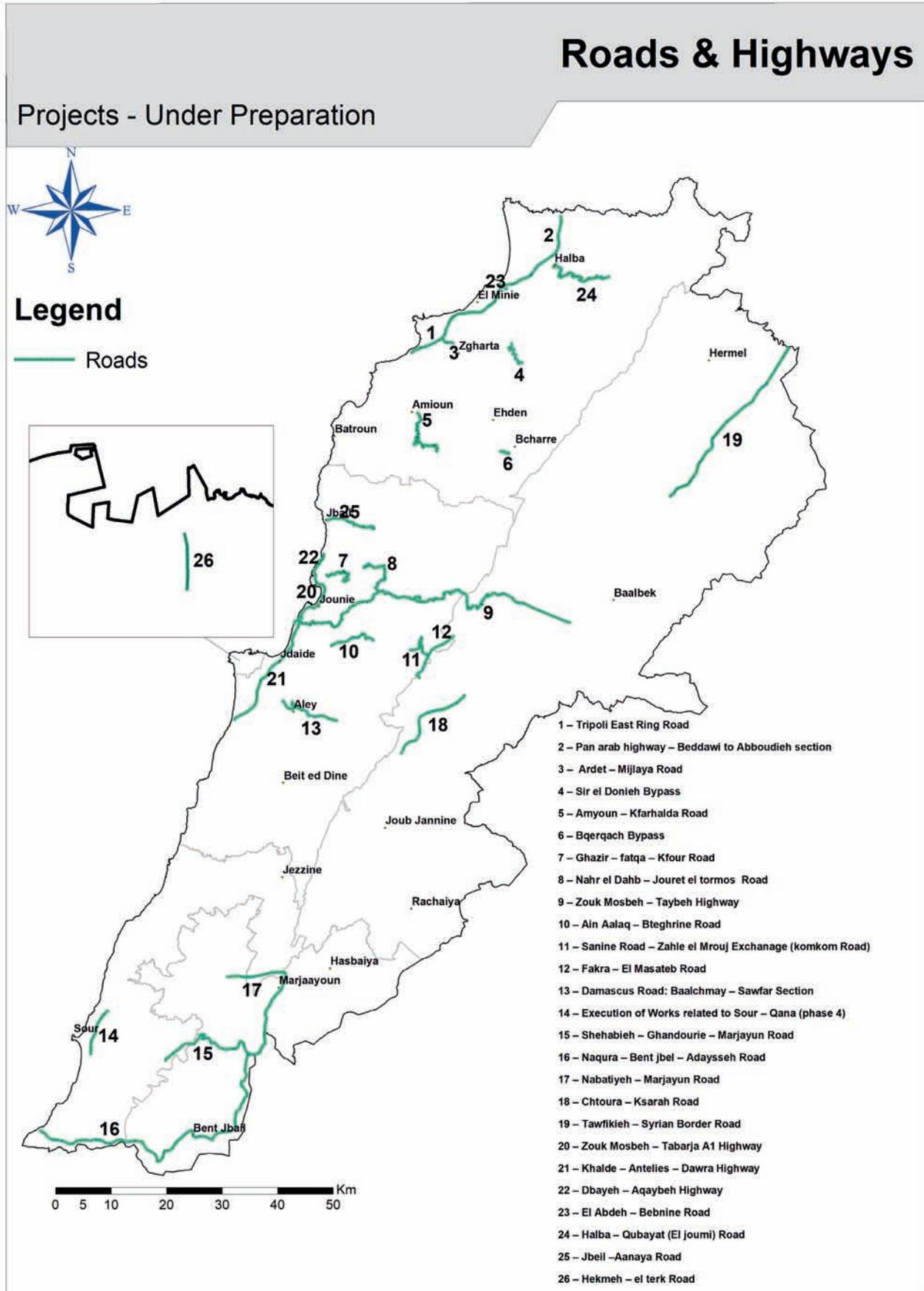
- Execution of rehabilitation works for the aircraft tarmacs, the water evacuation channel and the electricity network at the shipping building and the hangar of the Trans Mediterranean Airways (T.M.A), alongside oversight over such works.
- Continuation of the operation and maintenance of the Airport new building and ancillary facilities (appendix G), alongside oversight over such works.
- Rehabilitation of Al Manara lighthouse in Beirut.
- Renovation of the cooling systems in the passengers building at the Rafic Hariri International Airport.
- Procurement and installation of water filtering system for the Rafic Hariri International Airport cooling system

### 5- **Main projects under preparation in the horizon of 2018-2020**

Preparations for the following contracts are underway:

- Execution of civil works for the rehabilitation of Rafic Hariri International Airport runways and taxiways.
- The CDR will start the review of the Rafic Hariri International Airport Master Plan, based on last years' developments, and in collaboration with the Ministry of Public Works and Transport.





## Education and Higher Education

The initial goal of the education and higher education plan adopted by the Lebanese government was to “provide a seat in primary school for every Lebanese school-aged child” in line with the Dakar Framework for Action: “Education for All”. However, after the Ministry of Education and Higher Education (MEHE) has laid the foundations for the education sector reforms, the said plan was expanded beyond the quantitative or qualitative dimension of “school seats” to a broader concept of education that secures quality education and equal opportunities and contributes to social inclusion and economic development.

In the aftermath of the July 2006 war, the Ministry of Education and Higher Education (MEHE) developed a study to assess the war’s impact on the education sector in collaboration with the World Bank and the UNESCO. Subsequently, an education reform process was launched, with the “National Education Strategy for Lebanon” as a cornerstone. The Lebanese Association for Educational Studies (LAES) finalized the said strategy at the end of 2006 and presented it to the Council of Ministers in the beginning of 2008 for adoption. Thereafter, a larger and broader action plan for the Ministry was developed whose goal is to offer quality education and promote compulsory basic education up to the age of 15.

However, the impact of the Syrian crisis on Lebanon has been immense. Since the outbreak of the crisis in 2011, up to 1.5 million displaced persons have crossed the border into Lebanon, accounting for nearly a third of the population.

The Educational Strategy is based on:

- Equality of educational opportunity;
- Quality education oriented towards building a knowledge society;
- Education that contributes to social inclusion;
- Education that contributes to economic development;
- Modernization of the Ministry of Education and Higher Education (MEHE) and its transformation to strategic management.

The spillover of the Syrian crisis into Lebanon reached an overwhelming point and placed a huge strain on the socio-economic situation. In response, the UN agencies and the development partners committed to supporting Lebanon, namely in the education and higher education sector, in partnership with the Ministry of Education and Higher Education (MEHE). To that end, the Reaching all Children with Education (RACE) initiative was launched to secure access to formal and non-formal education in safe environments for vulnerable children (3-18 years) who are impacted by the Syrian crisis.

RACE has three pillars:

- Pillar I: Improved access to education opportunities
- Pillar II: Improved quality of education services
- Pillar III: Strengthened capacity of the education system

RACE targeted 413,000 students per year in 250 vulnerable communities and was estimated at about US\$ 592, 39 million over three years (2013-2015). The initiative has had some clear success. The number of Syrian students in the Lebanese public education system has dramatically increased as RACE was implemented, going from 18,780 students aged 3-18 in school year 2011-2012 to 141,722 students in school year 2015-2016.

The success of RACE and the clear need for additional support led the Lebanese Ministry of Education and Higher Education (MEHE) and the international community to coalesce around a longer-term system-level strategy (2016-2021) to promote equitable access to education services and enhance quality of student learning within the framework of RACE II, estimated to cost approximately US\$2.1 billion over five years. The size of the World Bank-supported RACE II Program is estimated at about US\$1.8 billion over five years, or about US\$369 million per year. In addition to the IDA credit (US\$100 million) and trust fund grant financing provided through the Bank (US\$124 million), other funds through development partners are estimated to be

US\$172 million of commitments. The program appraisal document on a proposed credit by IDA in an amount equivalent to US\$ 100 million was signed in September 2016, and will come into effect in March 2017.

#### Main problems within the sector:

- Inequalities in formal education enrollment, school attendance, and passing
- Poor quality education that needs to be improved to contribute towards building a knowledge society.

#### A vision for the future

Increase equitable access to schooling in Lebanon, and enhance the quality of education services to contribute towards building a knowledge society and achieving social integration and economic development.

#### Achievements of the Education Sector (1992-2017)

- In 1992, the CDR launched a comprehensive rehabilitation process that covered all public schools in Lebanon and largely contributed to the provision of furniture and equipment to these schools. Thereafter and since 1996, the CDR reconstructed and equipped 25 public schools that were destroyed during the war, after securing the necessary funds. Between 1997 and 2000, the CDR also rehabilitated two teacher academies.
- In 1997, the CDR was charged with the rehabilitation and expansion of several public schools to increase their capacities, with funds allocated by the Program Law. No. 622/97.
- In 2001, the CDR commissioned engineering studies related to nearly 90 public schools and their site works contracts awarded since 2002 have all been completed. Subsequently, the CDR provided furniture and equipment to a large number of these schools. It is noteworthy that for the majority of these schools funding was secured by grants and loans in addition to MEHE appropriations under the Program Law (686/98). The funds were sourced from the Islamic Development Bank, The World Bank, the Saudi Fund for Development, the Arab Fund for Economic and Social Development and South Korea.
- Additionally, some schools damaged during the July 2006 war were rehabilitated by several donor countries such as Qatar, Iran, UAE, and by individuals, private sector institutions, and national and international organizations.
- The CDR completed the infrastructure and the concrete slabs to install 37 prefabricated schools donated by the Turkish Government to 18 villages in 9 districts, mostly in lieu of schools severely damaged or destroyed during the July 2006 war.
- The CDR constructed a new building to house all directorates and divisions of the Ministry of Education and Higher Education (MEHE) in one location. This new building is modern and enables MEHE to keep abreast of latest technology and IT advancements. After the new building was handed over to MEHE, the CDR awarded a maintenance and operation contract that is being renewed, when needed.
- The total aggregate value of contracts signed by the CDR in the education sector between 1992 and the end of 2017 amounted to US\$ 372, 73 million: US\$ 180, 29 million from foreign sources. The value of executed projects is estimated at US\$ 321, 12 million

#### Work Progress in 2017 in contracts signed before 2017:

In 2017, additional works were handed over in Al Mina Public School as well as the locally funded works at the schools of Aley, Amchit and Lassa. Also works were handed over in Tripoli Public Pilot School funded by the Government of Oman, and the works of Beirut School no.4 funded by the loan of the Kuwait Fund for Development.

#### Main contracts signed in 2017

The aggregate value of contracts signed by the CDR in the Education Sector totaled US\$ 7.49 million in 2017. A contract was signed to audit the studies and works related to the construction of Bakhoun Public School (US\$23500). The remainder of the US\$ 7.49 million sum was mainly used to finance additional site works or price adjustments of previous contracts based on comparative tables

#### Main projects under preparation (2018-2020)

Lebanon received financial assistance to support the education sector after the influx of the Syrian displaced:

- KFAED US\$ 4.8 million grant for the rehabilitation of a number of public schools, to be executed by the CDR. Studies were commissioned and works execution is scheduled for next year.
- World Bank US\$ 32 million grant offered directly to MEHE to provide education services to Lebanese and non-Lebanese children.

Within the framework of provision of support to Lebanon in response to the repercussions of the Syrian crisis, the World Bank, the International Development Association (IDA), and the Results in Education for All Children Trust Fund (REACH TF) granted MEHE an amount equivalent to US\$ 224 million. The majority of these grants will come into effect during 2017.

The projects executed by other funding sources are still underway, such as the Dahieh schools funded by the Kingdom of Saudi Arabia. Also funds are being solicited to finance the execution of site works at schools for which studies were commissioned through a local fund.

### Major Challenges of The higher education

The higher education sector faces serious quality problems:

- The spaces for social mix in education in Lebanon have shrunk considerably during the last few years at the level of university student composition and university teachers linkages;
- The contribution of higher education to geographical mobility is limited;
- The contribution of higher education to vertical social mobility is limited especially at the Lebanese University;
- The labor market of higher education graduates suffers from serious quantity and quality crisis;
- Higher education and technical and vocational education in Lebanon face serious challenges in keeping pace with the global labor market and in building a competitive workforce;
- The Lebanese University faces several problems in handling its affairs.

### Achievements in Higher education (1992-2017)

- The CDR rehabilitated the Faculty of Sciences at the Campuses of the Lebanese University in Hadath (1995) and Fanar (1996), the National Museum (1995), the National Conservatory branches in Beirut Central District and Achrafieh (1995) and Sin El Fil (1995) and the UNESCO palace (1998). Additionally, the Higher Institute of Technology at the Lebanese University and the Faculty of Engineering at Saint Joseph University were provided with the scientific material and equipment needed.
- The Rafic Hariri University Campus in Hadath was constructed, furnished and equipped. The Campus is composed of nine faculties affiliated with the Lebanese University in addition to the Faculty of Sciences (previously rehabilitated), the Industrial Research Institute (IRI) and the annexed buildings dedicated to various facilities servicing the campus. The nine faculties are: Public Health, Medical Sciences, Law and Political Sciences, Pharmacy, Journalism, Literature and Human Sciences and Faculty of Engineering and Fine Arts. In 2004, all buildings and constructions at the Hadath Campus were completed and handed over except for the external site works. The funding of the project was granted by the AFSED and the Islamic Bank in different proportions, in addition to the appropriations set out in the Lebanese University Program Law.
- In the context of this project, a three-year contract was awarded for the operation and maintenance of the Hadath University Campus, at a total cost of US\$ 26,4 million. The CDR also awarded a contract for the supervision, operation and maintenance of the University Campus. The CDR is working on the renewal of the maintenance and operation contract and the supervision contract for a three-year period. The last maintenance and operation contract (US\$ 24.9 million) and supervision contract (US\$ 1.25) were signed in 1/1/2017 and will be extended till 30/12/2019.
- The CDR prepared a Request for Proposal for the procurement of equipment for the laboratories of the Faculty of Sciences- the Lebanese University. After the US\$ 5 million loan agreement has been concluded with the Islamic Bank for Development, a call for tenders was released in 2006 and part of the equipment was purchased. Another call for tenders to procure the remaining part was released in 2007.

The CDR also provided IT equipment to the Lebanese University students sections, through an Arab Fund grant.

- The Unified Campus of the Lebanese University in North Lebanon: To date, the site works of three out of eight faculties were commissioned: the Faculty of Engineering and the Faculty of Fine Arts (November 2006) and the Faculty of Sciences (December 2012). The remaining faculties that need to be constructed to complete the campus are: The Faculty of Social Sciences, Faculty of Law and Political Sciences, Faculty of Economics and Business Administration, Faculty of Arts, and Faculty of Public Health, in addition to the central library, conference center, hospitality center, administration building, central car park, southern car park and sports complex. The value of the contract related to site works of the Faculty of Engineering and the Faculty of Fine Arts amounted to US\$ 57.66 million, funded by a loan from the Kuwait Fund. The completion of the construction of the two faculties was scheduled for 2013, but works completion was delayed due to a financial crisis faced by the contractor. As a result, the project execution was extended till the end of 2017. The aggregate value of the contract related to the Faculty of Sciences totaled US\$ 44.2 million, with a partial funding from the Saudi Fund. While works were scheduled for completion in the beginning of 2015, the contract was extended till the end of May 2018.
- The architectural studies for the construction of the Institute for Applied Sciences and the Teachers Academy in Bir Hassan were awarded. After conducting negotiations with the French Development Agency (AFD), Lebanon received a EUR 21 million loan coupled with a EUR 700,000 grant to finance the project. The Parliament ratified the loan by Law (15) issued on 16/02/2016.
- The aggregate value of the contracts signed by the CDR in the sector of higher education and culture between 1992 and the end of 2017 totaled US\$ 633.25 million of which US\$ 258.17 million were foreign-sourced funds. The value of the completed projects amounts to US\$ 448.93 million.

#### **Work progress in 2017 in contracts signed before 2017**

Due to the persistence of the financial problems of the company contracted out to build the Institute of fine art and the Faculty of Engineering in the North University Campus, the CDR assigned a sub-contractor, and the project is expected to be completed by the end of 2017. The site works were finalized before the end of 2017 and the tender document for the procurement of laboratory equipment for the two faculties was prepared. Part of the needed equipment was purchased and will be completed during 2017.

The CDR's board of directors approved three addendums to the contract related to the works of the Faculty of Sciences in the North of Lebanon and extended the contract duration till end of 2017. The contract related to the preparation of a study and a tender document for the procurement of laboratory equipment and furniture for the North Faculty of Sciences was also signed.

#### **Main projects under preparation (2018-2020)**

Following the completion of studies and preparation of tender documents related to the Faculty of Public Health in the North of Lebanon and the Faculty of Public Health in Fanar, the works, furniture and equipment contracts are expected to be commissioned, the soonest, under a loan granted by the Islamic Bank. Also fundraising should be initiated to finance the final phase of the North Unified University Campus.

Lastly, the architectural and engineering studies and the tender documents related to the construction of the Institute of Applied Sciences and the Teachers Academy at Bir Hassan, with the financial assistance of the French Development Agency, were all completed. The tender process related to the project's works is expected to be launched next year alongside the preparation of studies and commencement of the training sessions at the Teachers Academy. Also the tender process related to the services for the "Consolidation of the governance of administrative and financial management at the Higher Institute of Applied Economic Sciences (ISSAE) / Conservatoire National des Arts et Métiers (CNAM), is expected to be launched.

| <b>Main contracts signed in 2017<br/>Culture and Higher Education</b>   |                              |                                  |                            |                                 |
|---|------------------------------|----------------------------------|----------------------------|---------------------------------|
| <b>Project Title</b>  | <b>Contract value (US\$)</b> | <b>Source of Funding</b>         | <b>Expected Start Date</b> | <b>Expected Completion Date</b> |
| Operation and maintenance contract related to Rafic Hariri University Campus - Hadath   | 24,921,300                   | Local                            | 1/1/2017                   | 31/12/2019                      |
| Operation and maintenance supervision contract –related to Rafic Hariri University Campus - Hadath  | 1,246,063                    | Local                            | 1/1/2017                   | 31/12/2019                      |
| Appendix (3) to the works contract related to the Faculty of Sciences at the President Michel Sleiman Lebanese University Campus in Tripoli   | 1,703,555                    | Saudi Fund for Development (SFD) | 21/12/2017                 | 30/5/2018                       |
| Appendix (1) to the works supervision contract related the Faculty of Sciences at the President Michel Sleiman Lebanese University Campus in Tripoli  | 528,025                      | (SFD)                            | 9/3/2017                   | 30/5/2018                       |
| Appendix (7) to the works contract related to the Faculties of Engineering & Fine Arts at the President Michel Sleiman Lebanese University Campus in Tripoli  | 436,722                      | Islamic Development Bank (IDB)   | 25/4/2017                  | 22/6/2017                       |
| Works supervision contract related to the Faculty of Public Health at the President Michel Sleiman Lebanese University Campus in Tripoli  | 1,076,250                    | (IDB)                            | 16/5/2017                  | 31/12/2019                      |
| Procurement and installation of laboratory equipment - Faculties of Engineering & Fine Arts at the President Michel Sleiman Lebanese University Campus in Tripoli   | 788,061                      | (IDB)                            | 22/6/2017                  | 22/12/2017                      |
| Preparation of a study and bidding documents related to procurement and installation of laboratory equipment - Faculties of Engineering & Fine Arts at the President Michel Sleiman Lebanese University Campus in Tripoli | 39,600                       | Local                            | 16/5/2017                  | 16/7/2017                       |
| Appendix (8) to works contract related to the Faculties of Engineering & Fine Arts at the President Michel Sleiman Lebanese University Campus in Tripoli  | 4,406,108                    | (IDB)                            | 2/3/2017                   | 30/6/2017                       |
| Appendix (3) to works supervision contract related to the Faculty of Sciences at the President Michel Sleiman Lebanese University Campus in Tripoli   | 528,025                      | (SFD)                            | 3/7/2017                   | 30/5/2018                       |
| Works supervision contract related to the Faculties of Engineering & Fine Arts at the President Michel Sleiman Lebanese University Campus in Tripoli – Appendices (1), (2) and (3)  | 1,112,415                    | (IDB)                            | 27/4/2017                  | 30/6/2017                       |
| <b>Total</b>  | <b>36,786,124</b>            |                                  |                            |                                 |

| <b>Main contracts under preparation in the horizon of 2018-2020<br/>Culture and Higher Education</b>   |                              |                          |                            |                                 |
|--|------------------------------|--------------------------|----------------------------|---------------------------------|
| <b>Project Title</b>   | <b>Contract value (US\$)</b> | <b>Source of Funding</b> | <b>Expected Start Date</b> | <b>Expected Completion Date</b> |
| Execution of works at the Faculty of Public Health and part of the common areas of the Unified University Building – North University Campus | 27,500,000                   | (IDB)                    | October 2018               | October 2021                    |

|   |            |                           |                |               |
|---|------------|---------------------------|----------------|---------------|
| Completion of laboratory equipment procurement for the Faculties of Engineering and Architecture at Tripoli University Campus | 5,000,000  | (IDB)                     | October 2018   | April 2019    |
| Procurement of laboratory equipment for the Faculty of Sciences at Tripoli University Campus                                  |            | Local                     |                |               |
| Construction of Public Health Faculty - Fanar Campus  | 25,400,000 | (IDB)                     | September 2018 | December 2021 |
| Construction of the Institute for Applied Sciences and the Teachers Academy in Bir Hassan                                     | 19,500,000 | French Development Agency | July 2018      | December 2021 |
| Total   | 77,400,000 |                           |                |               |

**Main Projects under preparation in the horizon of 2018-2020****Youth and Sports**

| Project Title   | Contract value (US\$) | Source of Funding | Expected Start Date | Expected Completion Date |
|---|-----------------------|-------------------|---------------------|--------------------------|
| Rehabilitation and maintenance of Aley and Bhamdoun sports courts | 2,500,000             | Local             | December 2018       | May 2020                 |
| Rehabilitation and maintenance of Camille Chamoun Sport City      | 2,500,000             | Local             | September 2018      | December 2020            |
| Total   | 5,000,000             |                   |                     |                          |

**Main contracts signed in 2017****Education**

| Project Title   | Contract value (US\$) | Source of Funding | Expected Start Date | Expected Completion Date |
|---|-----------------------|-------------------|---------------------|--------------------------|
| Technical audit of the study and works related to Bakhoun Public School | 23,500                | Local             | 29/08/2017          | 29/08/2018               |
| Total   | 23,500,00             |                   |                     |                          |

**Main Projects under preparation in the horizon of 2018-2020****Education**

| Project Title   | Contract value (US\$) | Source of Funding   | Expected Start Date | Expected Completion Date |
|---|-----------------------|---|---------------------|--------------------------|
| Construction of a public school in Kfarselwan                                       | 2,000,000             | Local   | July 2018           | September 2019           |
| Rehabilitation and provision of equipment to Batloun Public Secondary School        | 240,000               | Enhancing of public services in Lebanese host communities - KFAED | December 2018       | June 2019                |
| Rehabilitation and provision of equipment to Barja Public Secondary School          | 240,000               | KFAED   | December 2018       | June 2019                |
| Rehabilitation and provision of equipment to Laure Moghayzel girls secondary school | 240,000               | KFAED   | December 2018       | June 2019                |
| Rehabilitation and provision of equipment to Safra Public Secondary School          | 240,000               | KFAED   | December 2018       | June 2019                |

|  |            |  |               |                |
|--|------------|--|---------------|----------------|
| Rehabilitation and provision of equipment to Qarya Public School   | 240,000    | KFAED  | December 2018 | June 2019      |
| Rehabilitation and provision of equipment to Hermel Public Intermediate School   | 240,000    | KFAED  | December 2018 | June 2019      |
| Rehabilitation and provision of equipment to Saida Secondary Public School for boys  | 240,000    | KFAED  | December 2018 | June 2019      |
| Rehabilitation and provision of equipment to Aadchit Public Intermediate School  | 240,000    | KFAED  | December 2018 | June 2019      |
| Rehabilitation and provision of equipment Nabha Public Intermediate school   | 240,000    | KFAED  | December 2018 | June 2019      |
| Rehabilitation and provision of equipment to Younin Public Intermediate School   | 240,000    | KFAED  | December 2018 | June 2019      |
| Rehabilitation and provision of equipment to Braiqeh Public Secondary School   | 240,000    | KFAED  | December 2018 | June 2019      |
| Rehabilitation and provision of equipment to Tariq Al Jadida Third Public School for Girls   | 240,000    | KFAED  | December 2018 | June 2019      |
| Rehabilitation and provision of equipment to Baalchmay Public Intermediate School  | 240,000    | KFAED  | December 2018 | June 2019      |
| Rehabilitation and provision of equipment to the Borj Al Brajneeh Fifth Public School  | 240,000    | KFAED  | December 2018 | June 2019      |
| Rehabilitation and provision of equipment to Martyr Hassan Qosayr Intermediate Public School   | 240,000    | KFAED  | December 2018 | June 2019      |
| Rehabilitation and provision of equipment to Martyr Morched Nahas Public School  | 240,000    | KFAED  | December 2018 | June 2019      |
| Rehabilitation and provision of equipment to Al Mansouri Intermediate Public School  | 240,000    | KFAED  | December 2018 | June 2019      |
| Rehabilitation and provision of equipment Saida Intermediate Public School   | 240,000    | KFAED  | December 2018 | June 2019      |
| Rehabilitation and provision of equipment to Sayda Eslah School for Girls  | 240,000    | KFAED  | December 2018 | June 2019      |
| Rehabilitation and provision of equipment to Ain Qanya Public School   | 240,000    | KFAED  | December 2018 | June 2019      |
| Rehabilitation of Aarsal Public Secondary School ( renovation of the building, installation of metal fence, ceiling and doors for the warehouse) | 100,000    | AFESD  | July 2018     | February 2019  |
| Procurement of furniture and equipment for Tripoli Pilot School  | 487,441    | Kingdom of Saudi Arabia                        |               |                |
| Supervision of procurement of furniture and equipment for Tripoli Pilot School   | 4,874      | KSA  | January 2018  |                |
| Preparation of study and tender document to procure furniture and equipment for Antelias Public School   | 26,250     | KSA  | January 2018  |                |
| Purchase of equipment for Aarsal Third Public Intermediate School  | 50,000     | Displaced Syrian Relief Initiative – Arab Fund | July 2018     | September 2018 |
| Construction Works- Nursery and multi-purpose hall in Aarsal   | 1,500,00   | AFESD  | July 2018     | September 2019 |
| Construction Works – Bakhoun Public School   | 3,129,678  | KSA  | May 2018      | September 2020 |
| Total  | 12,098,243 |  |               |                |

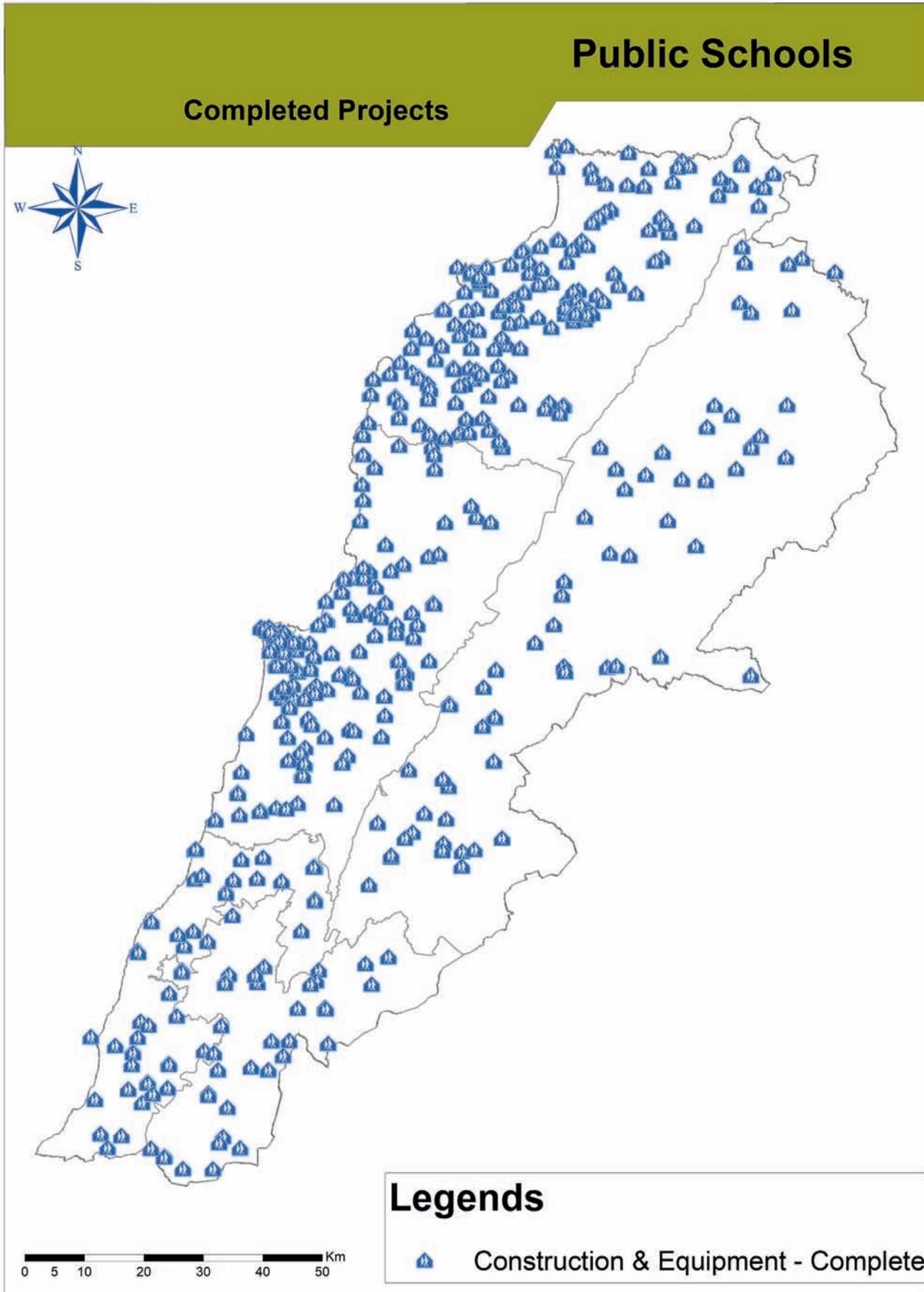


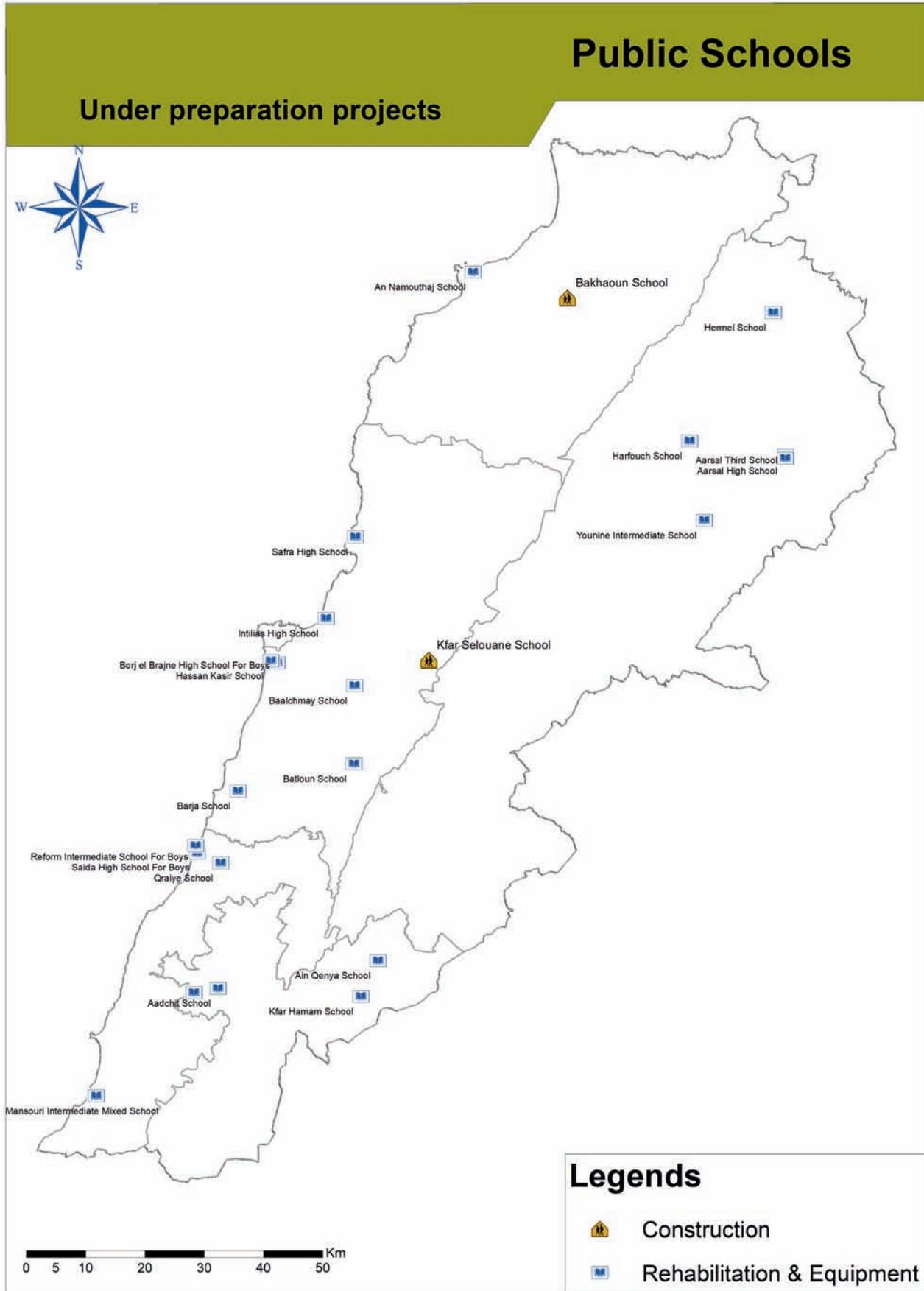
**Lebanese University - Tripoli**



**Public School - Antelias**







## Health Sector

### **Current Situation**

The healthcare sector constitutes a major topic of discussion because it is closely connected with economic reforms. In Lebanon, the healthcare system suffers from various deficiencies that impact the quality of health care services and their funding sources. Sustainability, efficiency and equality are among the main and highly correlated challenges the Lebanese health sector is confronted with.

The Ministry of Public Health (MoPH) in Lebanon persevered with the improvement of its offerings and programs in order to ensure population health and provide prevention and treatment at the lowest cost while maintaining a high quality level, despite the increased strain this sector has been faced with due the large influx of Syrians to Lebanon. In fact, the financial and economic impact of the Syrian crisis was estimated at US\$ 18 billion between 2011 and 2017. In fact, the total health expenditures ranged between 11% and 12% of the GDP, the highest rate in the Eastern Mediterranean countries, while the revenues generated by these high expenditures were low. The intensified demand for hospital services led to hospitals overcrowding and deteriorated the quality of medical services, which exacerbated the financial burden on hospitals, rose health costs and increased medicine shortages.

However, despite these adverse circumstances, there were some positive health indicators and reports that revealed the remarkable resilience of the health sector and its ability to work towards constant improvement. In fact, the World Economic Forum Global Competitiveness Report 2016-2017 confirmed the good performance of the healthcare system in Lebanon, ranked 34 in health with a score 6.8 points out of total of 7, despite the social and economic determinants highlighted in the Report.

Then came the 2017 Bloomberg Global Health Index which revealed that the international position of the healthcare system in Lebanon ranked Lebanon as the healthiest Arab country.

Also, the Healthcare Access and Quality Index published in Lancet Magazine in May 2018, placed Lebanon at the 33rd position with a score of 86 out of 100 among 195 country and districts.

Additionally, the Ministry of Public Health is pursuing its efforts to implement the health sector strategy for the years 2016-2018. The Ministry is also pushing towards health sector reforms to improve health system quality, provide comprehensive health coverage and create stability in the healthcare sector, in partnership with all stakeholders in the public and private sectors to meet the demands of the entire population with particular focus on the most vulnerable groups.

### **Main achievements in 2017**

#### 1.1 Within the framework of improvement of primary health care services

- **Establishment of a healthcare center in Khalwat and rehabilitation of Jbaa Health Center:** Within the framework of the IDB-funded Project on the "Improvement of Primary Healthcare Services", a contract was awarded to the winning bidder to set up a health care center in Khalwat and rehabilitate Jbaa Health Center.
- **Rehabilitation & equipping of medical centers in Batroun, Sour, Sidon, Hasbaya and West Bekaa:** Within the framework of the IDB-funded Project on the "Improvement of Primary Healthcare Services", the project contract was awarded to the winning bidder. The project is intended to strengthen the Ministry of Public Health's planning and monitoring capacities at the local level.
- **Establishment and equipping of Damour and Ghobeiry health centers:** After assigning a consultant to prepare the studies and tender documents related to both centers in early 2016, the Ministry of Public Health communicated to the CDR its approval of the second phase of the study related to the establishment and equipping of Damour Healthcare Center.
- **Labweh Health Center:** The project related to miscellaneous works and additional medical equipment at the Labweh Health Center was completed with funds from the Government of Lebanon. The contractor has started the project handover.
- **Program for Improvement of Public Services in the Lebanese Host Communities for Syrian Refugees:** This program is funded by the first grant offered by the Kuwait Fund for Arab Economic Development (KFAED). It includes a component to rehabilitate and equip health centers nationwide with a focus on the towns impacted by the big numbers of Syrian displaced. The following table showcases the targeted centers by geographical distribution:

| District        | Name of Health Care Center  |
|-----------------|---|
| Nabatieh        | Kfarrouman Health Center  |
| Hasbaya         | Primary Health Care Center  |
| Beirut          | Dar Al Fatwa Health Center<br>Primary Health Care Center - Qarantina Governmental Hospital<br>Primary Health Care Center - Rafic Hariri Governmental Hospital |
| Chouf           | Al Barouk Health Center<br>Baaklin Medical Center<br>Beit el Din Health Center  |
| Aley            | Choueifat Governmental Center   |
| Byblos          | Jbeil Qadaa Governmental Dispensary   |
| Baabda          | Bint el Hoda Sabra Center   |
| Metn            | Dahr al Basheq Governmental Hospital<br>Social Medical Center/ Bolghurjian - Bourj Hammoud<br>Dr. Wadih Al-Hajj Center – Baskinta                             |
| Rashaya el Wadi | Primary Health Care Center – Rashaya Governmental Hospital  |
| Tripoli         | Alkarameh charity center  |
| Akkar           | Al Makassedi Health Center – Wadi Khaled<br>Najdeh Chaabieh Halba   |

The Ministry of Public Health distributed the Kuwait grant appropriations to the concerned health centers which amounted to US\$ 2,700,000, inclusive of the cost of rehabilitation and equipping of Dahr el Bacheh Governmental hospitals.

These centers were distributed into four groups, and the CDR assigned a consultant to develop the study and tender documents for each group. The four tenders will be soon released, following the approval of the Ministry of Health and the funder.

## 2.2 Within the framework of hospital services

- Bcharre Governmental Hospital:** The CDR rehabilitated and equipped the Bcharre Governmental hospital through a grant offered by the Kingdom of Saudi Arabia. The CDR is currently working on the rehabilitation of the building annexed to the hospital, with local funds. Phase I works which started in May 2014 were completed. The contractor launched phase II works, expected to end at the end of 2018. The tender related to the procurement and installation of medical equipment and furniture was conducted, and the related locally funded contract will be concluded with the winning bidder.
- Provision of medical equipment to Tebnin Governmental Hospital:** The IDB-funded project related to the procurement and installation of medical equipment and furniture at Tebnin Governmental hospital was completed. Also, the Kuwait Fund (KFAED) (as part of the works covered by the first grant dedicated to the Lebanon Crisis Response Plan) approved the tender document related to procurement and installation of medical equipment and furniture at the hospital's Catheter and Lithotripsy Units.
- Rehabilitation and completion of equipping of Baabda Governmental Hospital:** Sector I at Baabda Governmental hospital was rehabilitated and equipped between February 2012 and June 2013, with the financial assistance of the Islamic Development Bank (IDB). In 2015, works were launched to rehabilitate Section II under an Italian Government grant. In September 2015, the contractor launched Sector II works, funded out of the proceeds of the Italian Government grant. In 2017, the CDR approved additional works, bringing the value of the contract signed with the contractor to €3,161,782.
- The CDR also approved the study and tender document prepared by the assigned contractor with regard to the procurement and installation of equipment, medical devices and IT system at Baabda Governmental Hospital. A call for tenders was recently released, and the contract will be signed with the winning bidder as soon as the funding entity gives its approval. The value of the project is estimated at US\$ 544, 515 and will be funded by an IDB loan (Project for the Improvement of Hospital Healthcare Services in Qarantina, Sarafand and Baabda Hospitals).
- Construction and equipping of a new hospital in Deir el Qamar:** Phase I works started in August 2014, with funds from the Lebanese Government, and are expected to end in 2018. Currently, budget

appropriations are being secured to fund the second construction phase and the purchase of medical equipment and furniture.

- **Rehabilitation of Bouar Hospital/Ftough Keserwan and Rehabilitation of Al-Jabal Hospital/Qornayel:** Both projects will be implemented within the framework of a grant from the Kuwait Fund for Arab Economic Development under the Lebanon Crisis Response Plan (LCRP), in order to improve the level of health services. Two contracts were signed with two consultants to prepare the related studies and tender documents during the month of April 2016, with funds from the CDR's budget. An amount of US\$ 1 million was allocated for each hospital out of the financial proceeds of the grant. The CDR is currently reviewing the tender documents in order to release the two projects' calls for tenders.
- **Construction & equipping of Maifouq Governmental Hospital – Phase I:** The locally funded phase I construction works at Maifouq Governmental Hospital started in March 2015; in 2017 the CDR commissioned the contractor with additional works. In 2018, budget appropriations will be sought to fund the second phase of construction and the purchase of medical equipment and furniture.
- **Construction & equipping of Beirut Governmental Hospital/Qarantina new building:** Upon the decision of the Ministry of Public Health, a detailed study was developed to divert the Qarantina Hospital into a public hospital with a specialized Child Care Division. The contract was signed with the contractor in May 2016; construction works began in April 2016 and are scheduled for completion within a period of two years. The project is funded by the Islamic Development Bank (up to US\$ 6.15 million) and the remaining balance (US\$ 3.67 million inclusive of V.A.T), will be financed out of the CDR available appropriations. Also, this project's Environmental Impact Assessment was handed-over by the assigned consultant after it has been approved by the Ministry of Environment.
- **Construction & equipping of Sarafand Governmental Hospital:** the works call for tenders was released after obtaining the Council of Ministers' approval to allocate a property owned by the Municipality of Sarafand to the benefit of the Ministry of Public Health. The contract is co-funded by the IDB and the CDR, therefore it was awarded following the IDB's approval. The contractor launched the construction works in August 2017 and is expected to hand them over within a period of 18 months. This project's Environmental Impact Assessment was handed-over by the Consultant after it has been approved by the Ministry of Environment.
- **Construction & equipping of Sour Governmental Hospital:** The construction tender (US\$8,842,783) funded by the Government of Lebanon and the Islamic Development Bank was released. In August 2017, the contract was signed with the winning bidder and construction works are expected to end during the second half of 2019. At a later stage the hospital will be supplied with medical equipment and devices and furniture. The equipping process is expected to be completed in January 2020, whereby the MOPH will secure 75 beds for the city's residents and the neighborhood.
- **Support of Emergency Departments in Governmental Hospitals:** This project includes the provision of support to 14 governmental hospitals. It is implemented within the framework of the Program for Improvement of Public Services in the Lebanese Host Communities for Syrian Refugees, and funded by the first grant of the Kuwait Fund for Arab Economic Development.

These hospitals were distributed into 3 groups and consultants were commissioned to prepare the studies and tender documents for each group.

- **The first group includes emergency departments in the following governmental hospitals:** President Elias Hrawi Hospital in Zahle, Baalbeck, Hermel, Rashaya and Hasbaya governmental hospitals. Recently, the tender process was released and a contract is being prepared to provide equipment to the emergency departments in these hospitals.
- **The second group includes emergency departments in the following governmental hospitals:** Bint Jbeil Governmental Hospital, Nabih Berri University Hospital, Saida Hospital and Rafic Hariri University Hospital. The tender awarding process is underway.
- **The third group includes emergency departments in the following governmental hospitals:** Siblin, Ftough Keserwan, Qobbe - Tripoli, Abdullah Rassi and Sir El Dannieh. Recently, the tender process was released, and a contract will be signed with the concerned company to provide equipment to the emergency departments in these hospitals.
-

### 3. Main Projects under preparation

- **Support to Emergency Departments in Governmental Hospitals:** Within the framework of the Program for Improvement of Public Services in the Lebanese Host Communities for Syrian Refugees, funded by the third grant of the Kuwait Fund for Arab Economic Development, preparations are underway for this project, targeting an additional 16 governmental hospitals (among which Dahr el Bachek, Tanourine, Kartaba, Batroun, Ehden and Bcharre hospitals). In June 2016, the Council of Ministers approved the signature of the third grant agreement, and works are expected to start in mid-2018.
- **Procurement and installation of devices and equipment in governmental Hospitals:** The Council of Ministers approved two IDB- funded agreements related to this project. The value of the first agreement is US\$ 29,4 million and is dedicated to the procurement and installation of devices and equipment. The value of the second agreement is US\$ 6,000,000 and is dedicated to studies, preparation of tender documents and technical support. Both agreements were referred to the Parliament for conclusion.
- **Primary Health Services Strengthening Project:** This project is implemented with the financial assistance of The Islamic Development Bank, and aims to enhance and develop the public sector capacities in the fields of care and hospitalization. This project includes:
  - A. Establishment of the five new afore-mentioned health centers in Ghobeiry/Baabda district, Damour/Chouf district and Khalwat/Hasbaya district, in addition to the construction of two other centers in Sheikh Taba/Akkar district and Beshtefin/Chouf district.
  - B. Rehabilitation of three health centers in Jbaa/Jezzine district (afore-mentioned), Terbol/Zahle district and Bouday/Baalbeck district.

#### Main contracts signed in 2017:

| Project name  | Contract value<br>Inclusive of V.A.T<br>(In USD) | Funding Source  |
|---|--|---|
| Construction of Sarafand Governmental Hospital  | 7,438,327  | Islamic Development Bank &<br>The Republic of Lebanon |
| Construction of Sour Governmental Hospital  | 8,922,061  | Islamic Development Bank &<br>The Republic of Lebanon |
| Development of studies and tender documents of the project intended to provide support to emergency departments in governmental hospitals.<br>Group I: Baabda – Jezzine – Sour – Mais el Jabal – Kherbet Kanafar                            | 33,000   | The Republic of Lebanon                               |
| Development of studies and tender documents of the project intended to provide support to emergency departments in governmental hospitals.<br>Group II: Rafic Hariri University Hospital – Qarantina – Kabrchmoun – Orange Nassau - Minnieh | 33,000   | The Republic of Lebanon                               |
| Development of studies and tender documents of the project intended to provide support to emergency departments in some governmental hospitals.<br>Group III: Dahr el Bachek – Kartaba – Tannourine – Batroun – Ehden – Bcharre             | 39,600   | The Republic of Lebanon                               |



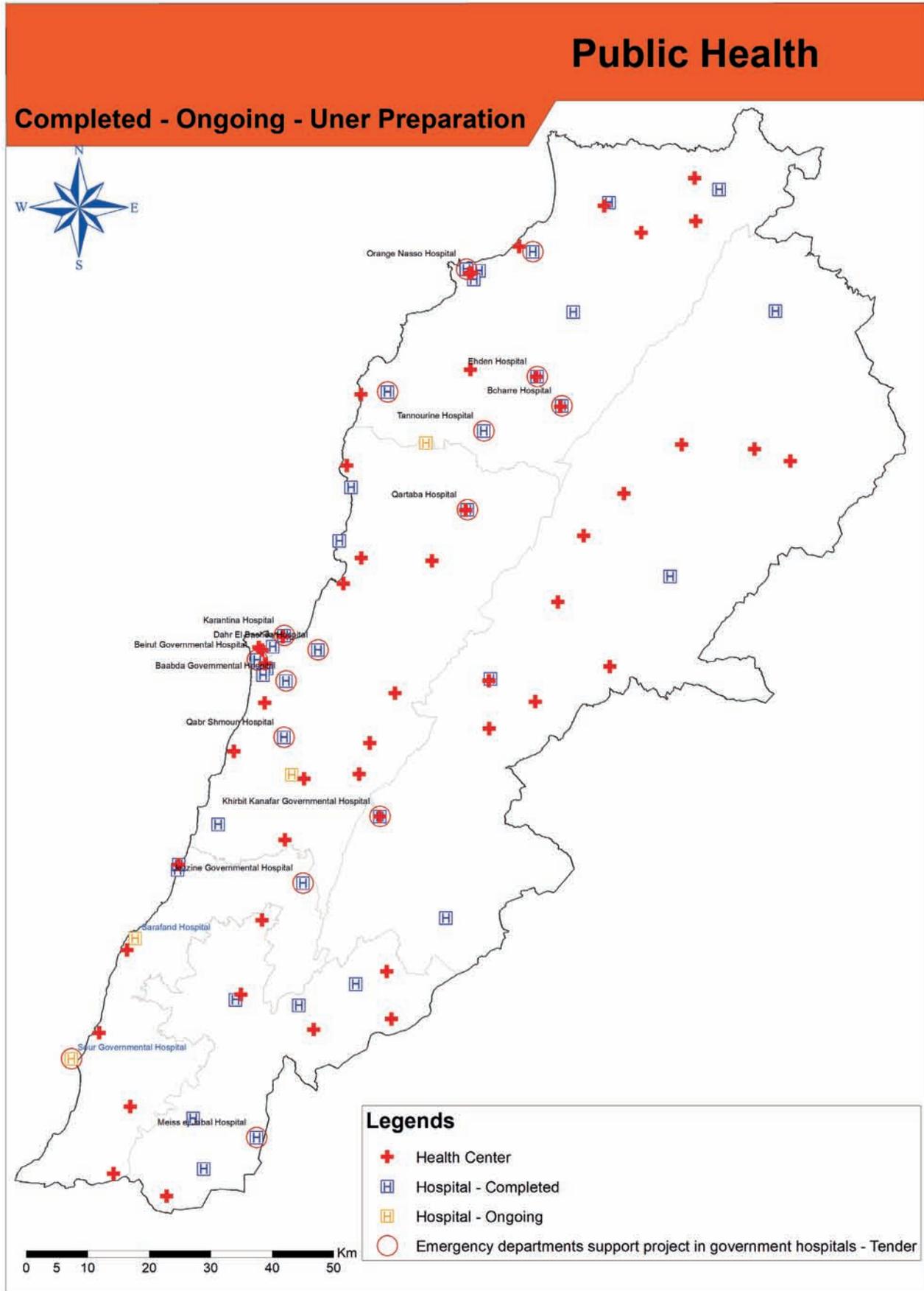
**Maifouk Government Hospital**



**Karantina Public Hospital**



**Sarafand Public Hospital**



## **Socio-Economic Development**

### **Integrated Regional Development Projects**

#### **Economic and Social Fund for Development (ESFD)**

The Economic and Social Fund for Development (ESFD) is committed to increasing employment opportunities in the Lebanese marginalized regions by providing credit access to Small and Medium Enterprises (SMEs) and building the capacities of private and individual project holders.

Furthermore, the ESFD strives in all its efforts to improve the livelihoods of the most impoverished and disadvantaged local communities in Lebanon, by offering grants and technical support to municipalities which act as a liaison between the ESFD and the local communities. Since 2013 and as part of the response to the Syrian displaced crisis, the ESFD has been employing various levels of interventions aimed at improving the infrastructure and stimulating local economies in the Lebanese host communities.

#### **1. Job Creation and Income Generation Component**

To facilitate access to credit of financially excluded people, the job creation component has the main objectives of offering financial assistance to SMEs projects across multiple sectors (agriculture, manufacturing, trade and services) and increasing job opportunities by providing access to incentivized production loans. The ESFD has a network of six commercial partner banks having branches all over the Lebanese territory. Additionally, the ESFD endeavors to develop the capacities of private and individual project holders to reduce unemployment and achieve a balanced economic development.

During 2017, the ESFD provided financial support to SMEs to execute 535 projects which resulted in the creation of 533 new jobs.

Between 2003 and the end of 2017, the ESFD financed 9,929 projects and created 7,402 jobs.

#### **Loans and new jobs forecasts versus actual results for the year 2017:**

In 2017, a high percentage of financed projects forecasts was materialized creating therefore some emerging jobs; the forecasts were however delayed due to various circumstances and variables, namely the following:

- The economic recession which caused a fall-off in loan demand.
- The significant decline in economic activity during the last two quarters of the year amid the anticipation trend prevailing in the market.
- The suspension of work with one of the ESFD partner-banks in the first quarter of 2017 due to deterioration in its loan portfolio quality.
- 

#### **Business Consulting Services within the Job Creation Component**

About 33% of the total loans granted during 2017 were offered through the ESFD's business advisors, totaling 178 loans.

This difference between the actual and the projected number of loans offered through business advisors is mainly caused by the following:

- The delayed recruitment process of the business consultants within the framework of the RELOC project. The recruitment process for all seven business consultants was completed in June 2017.
- The gradual launching of the RELOC project, especially in terms of marketing plan.
- The adoption of a more conservative lending approach, which lowered the number of loans granted (some sectors considered to be of high risk were excluded and new collateral regulations were issued to mitigate risks more safely).
- The decrease in the demand for loans:
  - Women hold 19% of total loans.
  - 11% total loans of projects under-construction.

### Business Consulting Services

The ESFD seeks the help of business advisors dedicated to offering guidelines and expert advice to individuals and SMEs across Lebanon. Those advisors enable access to financial loans that will be invested in new or existing economic activities. The service includes business plan creation, productivity forecast and preparation of all necessary paperwork to ensure that applicants are in the best possible position to receive funding from an ESFD partner-bank. The Business advisors follow also up on the implementation of these projects.

In 2017, the ESFD hired a team of 20 Freelance Business Advisors to offer business consulting services, contributing to the funding of 178 projects and the creation of 210 new jobs.

### 2. Local Development and Livelihood Component

Project on the Support of Local Development in North Lebanon (ADELNORD)

In March 2017, the solid waste treatment facility project in Fnaideq-Akkar was completely handed over. It marked the conclusion of the projects implemented within the framework of the EUR 2,990,242 EU-funded agreement on “Supporting Local Development in the North of Lebanon” in the regions of Akkar, Hermel and Dannieh.

The construction of a solid waste treatment facility in Fnaideq-Akkar (EUR 360,000) laid the cornerstone for the treatment of the village solid waste. The CDR will procure the equipment of this facility through a grant offered by the Kuwait Fund.

### 3. Support to Communities Hosting Displaced Syrians

Over the past few years, the ESFD contributed towards alleviating the repercussions of the Syrian displacement crisis in Lebanon and endeavored to provide the required support to the communities in terms of economic resources and basic social services. Various initiatives targeting the poorest and most vulnerable communities hosting displaced Syrians were implemented. The ESFD’s intervention aimed at alleviating the repercussions of this crisis on the economic, services, health and social sectors.

#### 3.1 Support to Municipal Finance in Lebanon-MUFIN:

The ESFD “Support to Municipal Finance in Lebanon – MUFIN” project - launched in 2013 and funded by the European Union- contributed to alleviating the burdens of the influx of displaced Syrian on local host communities through the improvement of the level and quality of services rendered by these municipalities. Several infrastructure projects were implemented under the umbrella of this project covering potable water, waste water and solid waste. In this context, the ESFD completed two main projects in 2017:

1. Construction of solid waste management facility in Bar Elias worth EUR 4.4 million. The facility is designed to treat 150 tons of waste per day; it comprises sorting, composting and dumping stations, and adopts the wind-row technology. It combines an administrative office building, primary sorting areas for big and small material, a sorting facility, a storage facility for recovered material, a composting section, an open section for composting treatment, an odour abatement system and an exhaust sanitary landfill. The project was temporarily handed over in August 30, 2017 and is expected to benefit 325,000 residents in the towns of Bar Elias, Qab Elias and Al Marj. The facility is scheduled to become operational during 2018 through the Office of the Minister of State for Administrative Reform (OMSAR), knowing that an operating budget was appropriated in the state budget.

2. Similarly, the ESFD is still implementing the EUR 3.4 million waste water treatment project in Hermel. This project however encountered some obstacles arising out of the relocation of the treatment facility, delaying therefore its implementation. The European Union, the Council for Development and Reconstruction (CDR) and the ESFD have agreed to task the EFSD with the execution of the 2500 m<sup>3</sup>/day station and 6 km waste water line, while the CDR is entrusted with the execution of the 9 km main sewer line from Hermel to the refinery, in

addition to 3,5 km secondary waste water lines, and a total of EUR 2.5 million for eight infrastructure projects to the North Lebanon Water Establishment and the Bekaa Water Establishment to ensure their operation and maintenance, in the presence of representatives of the ESFD, the European Commission and the two water establishments, as well as Heads of municipalities.

### 3.2 Recovery of Local Economies

The ESFD seeks to contribute towards stimulating the local economy in the farming villages which host displaced Syrians, through the implementation of the “Recovery of Local Economies in Lebanon (RELOC) project. RELOC is a EUR 7 million project funded by the European Union to implement productive projects with an emphasis on agriculture, in the North, the Bekaa, and the South, in support of productive initiatives and job creation. The RELOC project combines various agricultural interventions as follows:

#### 1. Support to agricultural infrastructure

The ESFD aims at improving irrigation water distribution systems and crop quality through the implementation of agricultural infrastructure projects. To that end, an amount of EUR 3.5 million was allocated to build mountain lakes and irrigation canals and to spread the use of solar energy in driving irrigation water in addition to the rehabilitation of springs used for irrigation.

| Project Name  | Village                  | Caza       | Project Description  | Contract Value in Euro | Project start Date | Expected Completion Date |
|---|--------------------------|------------|--|------------------------|--------------------|--------------------------|
| Agricultural Lake   | Beit Youness             | Akkar      | Construction of an agricultural pond with a capacity of 50.000 m <sup>3</sup>                              | 499.504                | 2 January 2018     | 2 January 2019           |
| Agricultural Lake   | El Qaa                   | Baalback   | Construction of an agricultural lake with a capacity of 140,000 m <sup>3</sup>                             | 1.314.610              | 2 October 2017     | 31 March 2019            |
| Irrigation canals, rehabilitation of water spring and irrigation lake | Ain Ibl                  | Bint Jbeil | Rehabilitation of irrigation canals in addition to rehabilitation of a water spring and an irrigation lake | 212.920                | 15 January 2018    | 15 January 2019          |
| Rehabilitation and construction of irrigation canals                  | Dannieh                  | Dannieh    | Rehabilitation and construction of 6000 meters irrigation canals   | 449.772                | 15 January 2018    | 15 January 2019          |
| Solar irrigation water pumping system                                 | Jbaa                     | Chouf      | Installation of solar irrigation water pumping system  | 108.593.75             | 2 December 2017    | 1 July 2018              |
| Water transfer by gravity and rehabilitation of the artesian well     | Deir el Ahmar - Zarzoufe | Baalback   | Water transfer by gravity and rehabilitation of the artesian well  | 112.652.50             | 28 June 2017       | 15 June 2018             |

#### 2. Implementation of agricultural extension programs

In parallel with the agricultural infrastructure projects, the ESFD launched an agricultural extension program worth 250,000 euros, targeting around 500 farmers in the Bekaa, Akkar, South Lebanon and Chouf, specifically in the towns benefiting from or adjacent to agricultural infrastructure. The program is dedicated also to training farmers on irrigation water management techniques as well as pruning techniques, apple and cherry post-harvest techniques and water management.

### 3. Strengthening Agricultural cooperatives

The project aims to support 42 active agricultural cooperatives in the sectors of beekeeping, fish, olives and food processing by providing them with the necessary equipment to activate their production processes. The value of this project totaled 1.3 million euros. The equipment handover to the targeted cooperatives has started since the beginning of 2018. Along the same lines, the ESFD organized workshops to train the cooperatives on project design and writing, to enhance their fundraising skills.

### 4. Implementation of accelerated vocational training courses in Tripoli

In July 2017, the ESFD launched an EU-funded pilot program in vocational training worth 220,000 Euros. This project aims to improve the professional skills of 39 trainees from official vocational schools and school dropouts from the Tripoli area to improve their employment opportunities and increase their income.

The program is divided into three phases: the first phase is to provide courses in English for a better communication, the second phase focuses on technical training in the field of maintenance, mechanics and industrial electricity, while the third phase aims to train students on Microsoft programs. This project will be closed out in March 2019.

### 5. Sustainability of projects implemented since the inception of the ESFD

The ESFD continuously monitors the projects executed under its umbrella, to ensure their sustainability. In this context, the ESFD team conducts periodic follow-up field visits to respond to projects' needs and provide them with technical assistance and advice if there is a need for operators or donors. During the year 2017, the team followed up on more than 91 ex-projects by measuring their impact on the local communities and facilitated the networking with the relevant ministries for projects support and development. It is noteworthy that these diversified and comprehensive projects across all sectors have contributed to the provision of more than 157 jobs.

The following table showcases the impact of some implemented health projects and the number of their beneficiaries.

| Project name               | Village       | Project Value in EUR | Medical services 2017 | Number of beneficiaries 2017 |
|----------------------------|---------------|----------------------|-----------------------|------------------------------|
| Primary Health Care Center | Wadi Khaled   | 274,300              | 221                   | 221                          |
| Ambulant Clinic            | Wadi Khaled   | 110,000              | 2,710                 | 2,905                        |
| Primary Health Care Center | Mashta Hassan | 273,481              | 20,321                | 11,198                       |
| Health Care Center         | Kfarbanin     | 55,328               | 4,425                 | 4,750                        |
| Health Care Center         | Mishmish      | 90,775               | 7,585                 | 16,602                       |
| Physiotherapy Center       | Aarsal        | 105,750              | 175                   | 210                          |
| Health Care Center         | Rshaf         | 44,000               | 183                   | 183                          |
| Health Care Center         | Toulin        | 150,000              | 4,305                 | 4,305                        |
| Total                      |               | 993,634              | 39,925                | 40,374                       |

**Success Stories**

**Al Bustan Agricultural Center - 7 years of prosperity**

One remarkable story of resilience and hope emerges from the upper Naqoura-Tyre region. In 2010, at the 1,100 farming families' insistence, the ESFD financed the construction and equipping of an EUR 320,000 EU-funded Agricultural Center in Al Bustan agglomeration. The Center is dedicated to improving the living conditions of the agglomeration residents by supporting the local economy and optimizing production capacity. It is equipped with a modern olive mill with a capacity of 500 kgs of olives per hour, and a manufacturing unit that produces olive products, including vegetable water used as heating fuel.

The Al Bustan agglomeration comprises five villages: Al-Jbain, Marwahin, Um Al-Tariq, Al-Zulutia, Dhahira and Al Bustan. It is located on the southern border between Lebanon and the occupied Palestinian territories. About 80% of the population depends on the agricultural sector as source of income, especially on tobacco and olive cultivation.

Since its inception in 2011, the Center improved the living conditions of some 800 agricultural households that depend on agriculture as a source of living, through local economic and productivity development.

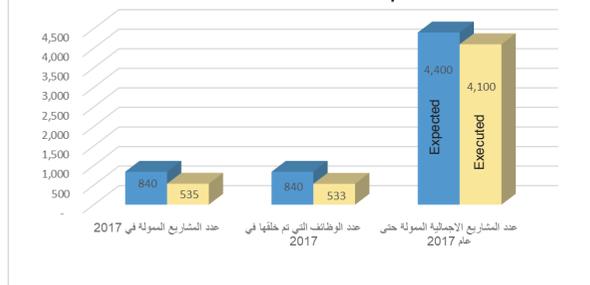
The Center has succeeded in attracting farmers from the towns of the agglomeration and from the neighboring towns such as Majdalzun, Yarin and Ramia. If you'll ever visit the Center you'll likely be surprised at the workload and the number of visiting famers. Today, the Center has extended its capacity to vastly cater for farmers and accommodate the growing number of beneficiaries.

The 23-year-old Lebanese entrepreneur Zain Suwaidan lives in the city of Bint Jbeil in the south of Lebanon. Zain turned his passion for deserts and confectionery into a business by opening a patisserie accommodating special events. Zain opened the first chocolate shop in Bint Jbeil three years ago where he started selling chocolate and souvenirs for special events only. The social media introduced Zain to the ESFD SME's services; he then applied for a loan through the ESFD representative. The loan enabled Zain to expand his business, relocate to a new two-story facility and hire 12 new workers. The municipality supported his entrepreneurial initiative by offering annual municipal fees discounts. Moving forward, Zain intends to expand towards the region of Tyre, where he plans to open another branch.

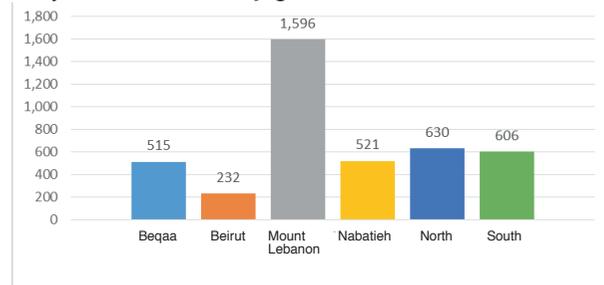
**ESFD Orientations during the year 2018:**

The ESFD' technical and administrative staff aspire to invest their expertise gained over the past 15 years in creating new and ambitious programs and identifying new and priority projects aimed at supporting the communities hosting displaced Syrians and empowering local communities to play a leading role in local development. The ESFD will also continue to support SMEs, contributing therefore to job creation.

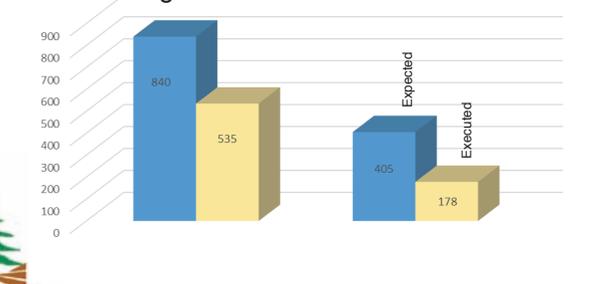
Forecasts versus the number of paid loans in 2017



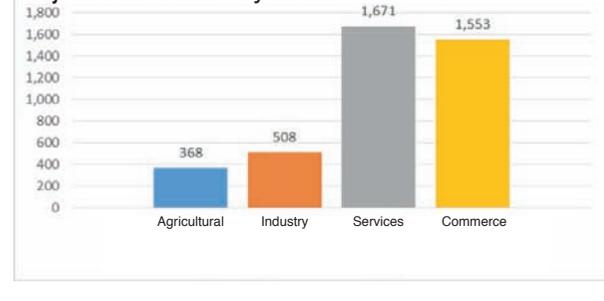
Project distribution by governorate 2011-2017



Forecasts versus actual results of paid loans offered through business advisors in 2017



Project distribution by sector 2011-2017





Training and Capacity Building



Olive press



Health Care Center



Solid waste treatment facility in Bar Elias



Construction of water tower and transmission and distribution network in Wadi Khaled villages worth EUR 2 million  
Beneficiaries: more than 33,000 residents



Movable Dispensary



Water Tank

## Land-use

The Land-use sector includes three sections:

1. Land use planning and urban development
2. Environmental and tourist projects
3. Cultural heritage and urban development

### 1. Land-use Planning and Urban Development

#### 1.A) Overview:

##### 1. A.1) Legal Framework:

The Law 5/77 dated 31/01/1977 establishing the Council for Development and Reconstruction (CDR), stipulates in its article 3 - paragraph 4, that the CDR "shall develop the draft general guiding framework for urban planning and submit it to the Council of Ministers for approval."

The Urban Planning Law 96/83, dated 09/09/1983, stipulates in its article 4, that the master plans and the detailed plans for cities and villages shall be developed as part of the Land Use Master Plan.

##### 1-A-2) Current Urbanization Status:

Since the seventies and during the Lebanese Civil War and thereafter, Lebanon witnessed an unprecedented urbanization activity, but lacked control and regulation mechanisms. This situation led to undesired results, including the following:

- Random urbanization along the main axis and in the suburbs of large cities;
- Negative impact on natural and archeological sites;
- Proliferation of licensed and unlicensed quarries;
- Deterioration of water quality water and pollution of rivers and groundwater;
- Trespasses to agricultural lands, coastlines, and major tourist sites.

This situation necessitated immediate solutions to reduce the negative impact on the economic and social growth in Lebanon, under stressing factors, mainly the following:

- Decreased financial capabilities of the public sector and the priority given to the reduction of public debt.
- The globalization and the new economic laws that countries should comply with to position themselves in international markets.
- Increased interest in environment and heritage since the nineties and orientation towards rationalization of natural resources use and deployment of big efforts to focus on heritage.

Based on the above, the current phase is characterized by the rationalization of resources use, the cut in public expenditures and the enforcement of control mechanisms.

##### 1.A.3) Preparation of Land Use Master Plan– National Future Outlook:

Based on the above, the CDR prepared a Land-use Master Plan in cooperation with the General Directorate of Urban Planning. This plan was studied between 2002 and 2004 and outlined topics of great importance, such as environment and natural resources, population growth and urban development, transportation, service projects and large constructions, agricultural lands, industrial zones, cultural and historical heritage elements, and other factors.

The Plan tackles these topics from a comprehensive strategic perspective and with a scientific and objective approach that takes into consideration the characteristics of the Lebanese society, with a view to shape a long-term ambitious and integrated vision regarding the future of the country lands (25 years). The main purpose of this vision is to constitute a general framework of the urban planning policy, and a unified geographical reference for projects and investments in the various sectors.

## 1. B) Achievements to Date:

### 1. B.1) Land Use Master Plan:

The CDR prepared between 2002 and 2004 a Land Use Master Plan with the assistance of Dar al Handassah (Sha'ir and Partners) and the Institute of Regional Planning of Ile de France (IAURIF).

Additionally, the CDR organized in 2005 a campaign to circulate the Land Use Master Plan to a large number of central and local public administrations and institutions, universities, civil society organizations, the Syndicates of Engineers and Architects of Beirut and Tripoli as well as international financing institutions.

The Land Use Master Plan was approved by the Higher Council for Urban Planning and the CDR and was referred to the General Secretariat of the Council of Ministers in September 2005. It was subsequently submitted to the Council of Ministers enclosed with a draft law.

The Land Use Master Plan was approved by Decree No. 3366 issued on 20/06/2009, based on the approval of the Council of Ministers dated 02/04/2009. Below are outlined the main issues highlighted in this Decree:

- 1) The identification of the general land-use orientations in tables annexed to the Decree. The General Directorate of Urban Planning must consider these orientations when studying or modifying master plans and detailed plans for cities and villages. These orientations took into consideration the land nature and characteristics and its possible use prohibitions.
- 2) The establishment of a management committee that will be responsible for the monitoring and evaluation of the Land Use Master Plan and that will be headed by the president of the Higher Council of Urban Planning and composed of delegates from the following ministries: Ministry of Public works and Transport, Ministry of Environment, Ministry of Culture, Ministry of Interior and Municipalities, Ministry of Energy and Water, Ministry of Agriculture, Ministry of Industry, Ministry of Economy and Trade, Ministry of Finance, Ministry of Defense and the CDR.

**1. B.2 Local Development Support Project in North Lebanon (ADELNORD):** The CDR was entrusted with the task of implementing the ADELNORD project in the North of Lebanon, with a US\$18 million grant offered by the European Union. In 2010, urgent agricultural infrastructure projects were identified as well as the clusters in which local development projects will be implemented through a participatory approach that will lead to the elaboration of a comprehensive plan for the villages clusters, with the participation of the local authorities and the civil society bodies, and with the support of ADELNORD's technical support team and the management of the Economic and Social Fund for Development (ESFD). Based on this plan, urgent projects that will be implemented by local authorities and funded by ADELNORD were agreed upon. (Please refer to the details of this plan in the Agriculture Sector section of this report and on the website: [www.cdr-adelnord.org](http://www.cdr-adelnord.org)).

In 2011, the contract related to the study and supervision of agricultural infrastructure projects was awarded. These projects were distributed into 6 groups based on the type and geographical location of the works. In 2012, the contracts of all activities and works were awarded. The project was fully completed in 2016.

**1. B. 3) Regional Natural Parks Projects:** The Land Use Master Plan recommends the creation of Regional Natural Parks. A regional natural park is designed as a joint project with several neighboring municipalities agreeing on a development chart that establish a balance between non-polluting and non-harmful economic activities and a moderate and high-quality urban development, as well as practical regulatory procedures, all aimed at preserving the natural environment. In this context, the CDR coordinated with the municipalities and associations which have started to take an initiative in this direction (Al Juma and Jurd Al Qaytaa Municipalities' union and Qoubayet Municipality in Akkar) with the participation of Mada association, El Matn El Aala municipalities' federation and IAURIF.

In the framework of supporting the creation of natural parks, and in the absence of a legal framework that governs the creation and management of such parks, the technical assistance team for the ADELNORD project funded by the EU, was commissioned by the CDR to develop the related draft legal framework, after setting out the relevant terms of reference in collaboration with the Ministry of Environment (MoE). After

the draft law has been completed by ADELNORD team, the CDR referred it to the Ministry of Environment. The draft law was enclosed with its draft implementing decrees and a legal text proposal to amend a draft decree on the protected natural reserves in Lebanon that was approved earlier by the Council of Ministers. The MoE referred these texts to the relevant parliamentary committees which approved them laying the ground for their approval in the foreseen parliamentary plenary session.

#### **1.B.4) Preparation of a Common Methodology to study the Strategic Regional Development Plans:**

After several international organizations expressed their willingness to finance regional developmental plans studies, and in order to consolidate the work methodology, the CDR developed in 2011, in collaboration with the Ministry of Interior and Municipalities and in cooperation with the administrations involved in the development sector, a common methodology that will be adopted in the preparation of such plans. This methodology was adopted in the preparation of tender documents related to the study of the strategic sustainable development plan for Tyre and Akkar.

#### **1.B.5) Preparation of Strategic Regional Development Plans:**

The CDR participated in the elaboration and preparation of comprehensive and sustainable development plans for the two regions of Fayhaa and the district of Tyre.

- In the Fayhaa region: The Fayhaa cities federation worked on the elaboration of a sustainable strategy for its cities with the support and financial assistance of several local and international entities. A team of several experts was commissioned to develop this plan in collaboration with all central and local administrations and civil society bodies. The CDR participated in the discussion of this plan in the Advisory Committee that was formed for this purpose. The plan resulted in a list of priority projects. The French Agency expressed its willingness to finance feasibility studies for these projects to lay the ground for the funding of some of such projects at a later stage.
- In Tyre (Sour): The Tyre Municipalities Union in cooperation with and the support of the French PACA region conducted several workshops intended to train and raise the awareness of local electors about the importance and the content of the Strategic Sustainable Development Plan (SSDP) for Tyre. The CDR, in cooperation with the Tyre Municipalities Union, awarded Tyre SSDP contract to the Consultation and Research Institute (CRI)/Habib Debs/ECODIT/IAURIF. The development of the SSDP for Tyre started in June 2013.

● In October 2013, the first workshop was conducted regarding Phase I which consists of the launching of the SSDP and the data collection process. Between 2014 and 2015, the consultants developed draft reports concerning the following:

- 1- Data analysis (Diagnostic - SWOT analysis).
- 2- Goals, vision and priority sectors.
- 3- Draft of the Strategic Sustainable Development Plan.

Shortly after the draft of each report was developed the Tyre Municipalities Union organized workshops attended by municipalities, civil society actors and local and central administrations, to discuss the findings of the draft and obtain the participants' feedback, and therefore issue the final version in accordance thereto. Final versions were issued in May 2015. Pursuant to decree 8213/2012 (Strategic environmental assessment of draft public sector policies, plans and programs), the consultant prepared a strategic environmental assessment of the Tyre SSDP which was approved by the Ministry of Environment.

In Akkar: Within the framework of ADELNORD Project funded by the EU, the CDR commissioned the technical support team to formulate a Strategic Sustainable Development Plan (SSDP) for Akkar, which kicked off at the end of 2012. In April 2013, the first workshop was conducted to launch the SSDP and the data collection process. Between 2014 and 2015, the consultants prepared reports concerning the following:

- 1- Data analysis (Diagnostic - SWOT analysis)
- 2- Goals, vision and priority sectors.

After the draft of each report was prepared, the CDR was conducting a workshop attended by municipalities, civil society actors and local and central administrations, to discuss the findings of the draft and obtain participants' feedback, and therefore issue the final version in accordance thereto.

The CDR prepared the draft SSDP for Akkar. Pursuant to decree 8213/2012 (Strategic environmental assessment of draft public sector policies, plans and programs), the strategic environmental assessment of the Akkar SSDP was developed and approved by the Ministry of Environment.

#### **1 – B-6) Preparation of a Work Paper on Real Estate policies in Lebanon:**

The current situation and high prices of the real estate market in Lebanon impede and complicate the implementation of general real estate policies. Therefore, it has become necessary to tackle the topic of real estate policies in Lebanon in order to propose practical procedures that would improve and reform the real estate situation. To that end, a study was conducted to analyze the situation of real estate in Lebanon in cooperation with the CMI (Centre de Marseille pour l'intégration en Méditerranée), specialized in Mediterranean urban development studies and research. Based on the findings of this study, recommendations and procedures were proposed to improve the situation. This study will pave the way for discussing this topic with concerned administrations in Lebanon with a view to approve any procedure or regulation that would reform the fiscal real estate sector, include the rental of apartments in the housing policy, help low-income individuals in finding suitable lodging, and rationalize the financing of infrastructure to serve residential areas.

#### **1 – B-7) Preparation of the Habitat III report to lay the ground for the participation of the Lebanese Republic in the third United Nations Conference on Housing and Sustainable Urban Development:**

After the Lebanese Republic received an invitation to participate in the above-mentioned conference that was held on 17/10/2016 in the city of Quito in Ecuador, the CDR commissioned a local urban planning and urbanization expert to develop a report on Housing and Sustainable Urban Development in Lebanon in coordination with the United Nations Human Settlements Programme (UN Habitat) and the concerned administrations and institutions.

The expert developed the report. It was discussed with the concerned administrations and institutions and submitted to the Council of Ministers for approval and referral to the General Secretariat of Habitat III Conference.

#### **1 – B-8) Update of the Land Use Master Plan:**

The Land Use Master Plan was developed in 2004 and approved pursuant to a decree issued in June 2009. Thirteen years have elapsed since it was developed, and therefore it needed an update. In 2017, the CDR hopes to initiate the preparatory activities for the update of the Land Use Master Plan, in collaboration with relevant authorities (namely the General Directorate of Urban Planning). As part of these preparations, the CDR is working in collaboration with the National Center for Remote Sensing (NCRS) of the National Council for Scientific Research (CNRS) in order to update the databases of the national geographical information systems and subsequently update the National Land Use Map. This map will represent a main tool when the update of the Land Use Master Plan will start. This information was updated based on high definition satellites images taken in 2013.

**1-B-9) Follow up on studies related to the development of three industrial zones:** The CDR is following up on the work progress of a feasibility study related to the creation of three new industrial zones in Lebanon on lands owned by municipalities and endowment, within the framework of a common project between the Ministry of Industry and the UNIDO and with the financial assistance of the Government of Italy. The main goal of this project is to provide industrial lands with suitable infrastructure for reasonable priced and long-term rental, creating therefore a favorable climate for investors and new job opportunities and achieving economic development in the target regions. The CDR seeks also to secure funds to execute infrastructure works in the industrial zones, estimated at around US\$ 100.00 million. It is worth noting that the European Investment Bank (EIB) has promised to secure the required funds in the form of a long-term loan.

**1-C) Work Progress during 2017:**

In 2017, the CDR continued to carry out the following activities:

**1-C-1) Development of Tripoli Special Economic Zone (TSEZ) Master Plan:**

Upon the proposal of Tripoli Special Economic Zone Authority, the Council of Ministers, pursuant to its decision No. 169 of 20/10/2016 entrusted the CDR with the task of studying the TSEZ master plan and strategic assessment. The CDR, in close cooperation with the TSEZ Authority, released a tender to award a contract for the provision of related consultancy services including the infrastructure tender document. The contract was awarded to Khatib and Alami Consulting Engineers SAL, and the studies were initiated on 26/12/2017 and are expected to be completed by end of 2018.

**1-C-2) Update of the preliminary plan developed previously for the Development of Beirut Northern Littoral between Antelias River and Beirut River Project (LINORD):** In light of the new projects developed in the framework of LINORD - Creation of an access to Joseph Houry Project, the study which was previously developed with regard to the sea highway stretching from Dbayeh to Charles Helou Station, embankments works to set up a landfill in Burj Hammoud and in Jdeideh-Bauchrieh, provision of lands to build a wastewater pre-treatment plant and a secondary treatment plant, provision of lands to build a public park that replaces Burj Hamoud dumpsite and to establish a fishing port and a tourist port, ensure that there are sufficient spaces for the investor to implement the project, the CDR entrusted the Associated Consulting Engineers (ACE) with the task of updating the previous LINORD preliminary proposal. The update task is expected to start during 2018.

**1-D) Projects under preparation**

**1-D-1 Identification of an Investment Program to Promote Local Economic Development in several Lebanese cities, with funds from the European Investment Bank (EIB) and the French Development Agency (AFD):** The CDR is following up on the consultations carried out by the EIB and the AFD to lay the foundations for an investment project aimed at promoting local economic development in several Lebanese cities. The consultations encompassed several phases, the first consisting of the identification of the program context and development themes. As outcome of this phase, 9 cities have been selected for implementation of local development projects within the framework of the Program: Byblos, Saida, Tripoli, Tyre, Zahle, Aley, Baalbek, Nabatiyeh and Halba. Also, the following 3 themes/components were proposed to identify the projects:

Component 1: Invest in cultural and natural assets to support sustainable economic development and strengthen community identity and collective work.

Component 2: Enhance local economic chains (such as food supplies, agro-industries, and cultural tourism) to promote sustainable economic development and increase rural-urban linkages.

Component 3: Modernization of transport/movement infrastructure to establish connection between urban and rural areas and help in promoting sustainable urban development.

In later phases of the consultations, priority projects and their economic feasibility studies will be identified, in close collaboration with the concerned municipalities.

**1-D-2: Lebanon Municipal Investment Program, with a promised funding from the World Bank:** The CDR is following up on the consultations carried out by the World Bank to lay the foundations for a Municipal Investment Program aimed at supporting the Lebanese municipalities - in particular in the outskirts of Lebanese cities and towns - to address social and economic challenges that limit their growth and development due to many factors among which: (a) Syrian displacement and its repercussions on the economic situation in general, (b) decrease in growth levels and increase in poverty rate in Lebanon caused by a large infrastructure deficit that threatens to stifle future prosperity in the country, (c) infrastructure deficit that hinders productivity and discourages private investment (d) high concentration of economic activities and jobs in a limited number of urban centers, (e) dual system of governance between central authorities and local authorities and (f) the Lebanese municipal sector suffers from major weaknesses, such as the extremely large number of municipalities relative to Lebanon's geographic size and number of residents, the limited municipal resources and the large gap between the mandate conferred on municipalities by law and their limited financial resources.

The main proposed overarching objective of this Program is to: improve access to municipal services in secondary and tertiary cities and expand long-term, sustainable financing options for municipal infrastructure investments.

The Program objectives are: (i) improve access to municipal services for host communities and displaced persons in participating cities, (ii) develop national and municipal capacities to mobilize and absorb infrastructure financing from the private sector, (iii) set up municipal infrastructure and address service delivery deficits in participating secondary and tertiary cities and (iv) promote public private partnerships in cities and towns.

## 1. Environmental and Tourism Projects

### Main achievements until 2017

The Council for Development and Reconstruction's Planning and Programming Administration, in cooperation with other administrations of the Council, continuously identify and solicit funding sources to fund projects that represent environmental, economic and social benefits.

Among the projects implemented so far is the Environmental Fund for Lebanon (EFL). EFL is implemented by the German Agency for International Cooperation (GIZ) in cooperation with the Ministry of Environment and the Council for Reconstruction and Development (CDR), with a total budget of EUR 8.5 million. A steering committee was formed to set out EFL's action plan and monitor its performance, composed of representatives of the Ministry of Environment, the CDR, The Federation of the Chambers of Commerce, Industry and Agriculture, the Lebanese Banks Association, the Lebanese Environment Forum and the German Agency for International Cooperation (GIZ).

EFL aims at reducing environmental risks and economic impacts in areas affected by the Israeli 2006 war and in other underserved areas in Lebanon. EFL also supports innovative initiatives in the private sector, which are likely to produce clear environmental and economic benefits. In addition, EFL provides training opportunities to develop local capacities in order to create a mechanism for sound local management of natural resources.

Funds worth of EUR 3 million were invested in 16 local projects, across key areas of environmental protection such as sound waste management and rehabilitation of land, forests, and natural reserves damaged by the July 2006 war. Also a total budget of EUR 1,8 million was allocated for 6 projects aimed to address the issue of climate change adaptation in the North of Lebanon, and another budget of EUR 1,1 million was allocated to 8 projects aimed at reducing the pollution caused by industrial wastewater discharged by private companies in Kesserouan, the Litani Basin and the North of Lebanon.

EFLS' funded interventions in North Lebanon tackled climate change challenges. Key areas of focus included:

- Forest protection and sustainable development;
- Adopting drip irrigation and biological insect control in fruit trees;
- Rainwater harvesting;
- Reducing water consumption and water wastage in resorts frequented by tourists;
- Protecting the economic infrastructure of the Lebanese coastline from natural hazards.
- With regard to interventions aimed at reducing the pollution caused by private companies industrial wastewater discharge, key areas of focus included:
  - Foodstuffs and beverages;
  - Textile manufacturing;
  - Paper industry;
  - Chemicals;
  - Non-metallic mineral products (decorative stone saws);
  - Basic metals and metal products.

Moreover, EFL created a mechanism for the implementation of profitable environmental projects such as eco-tourism projects, cleaner production, and organic agriculture, which could stimulate pilot environmental projects. Through EFL's interventions, environmental action at local level proved to be successful, involving

municipalities that showed a high level of seriousness in projects' implementation and follow up.

EFL developed a research paper on the general policy that should be adopted to achieve environmental compliance and manage liquid industrial waste, and that aims at the following:

- Baseline analysis of industrial treatment of industrial wastewater;
- Review of environmental laws and regulations that regulate wastewater treatment in general, and industrial wastewater and their evacuation in particular;
- Assess the responsibilities and capabilities of stakeholders in terms of environmental compliance and assess all processes and procedures related to treatment facilities;
- Identify and draft recommendations to move forward in achieving the industrial sector's environmental compliance.

It is worth noting that EFL sought to shift from a research paper on the general policy regarding industrial wastewater management and environmental compliance to an action plan on industrial wastewater management, to identify priority measures and required resources to address the issue of industrial wastewater management in Lebanon.

In parallel to the provision of financial assistance to a number of projects aimed at abating industrial pollution, EFL worked on the organization of an integrated capacity-building program targeting institutions involved in industrial pollution abatement including private industrial enterprises and concerned public administrations, within the scope of supporting the Ministry of Environment in the preparation of a national program for industrial pollution abatement. This program carried out a number of activities and organized workshops on industrial waste management.

In the framework of environmental tourism, the Council for Development and Reconstruction (CDR), in cooperation with the Ministry of Tourism, developed a tourism and development master plan for Zahle, Baalback, Becharre and the Cedars, funded by the Japanese government, with a total budget of US\$2.5 million. One of the main purposes of this study is to determine the basic needs for tourism and eco-tourism development and provide feasibility studies for pilot projects designed to develop mountainous and rural regions, to be implemented at a later stage.

Since 2010, the Council for Development and Reconstruction (CDR) has been implementing the Project to Support Local Development in North Lebanon (ADELNORD) which encompasses an environment component and is funded by an EU Grant Agreement (ENPI/2008/019-623). Areas of progress of ADELNORD's environment component until 2016 include:

- 1- Within the context of the initiative aimed at developing a sustainable strategic plan for Akkar, ADELNORD created a standardized methodology to draft the terms of reference of the preliminary studies related to the Regional Development Plans, in collaboration with the Ministry of Interior and Municipalities and in cooperation with the administrations involved in the development sector, as a preliminary step for the preparation of the tender document pertaining to the Strategic Sustainable Regional Development Plan for Akkar.
- 2- In 2014, ADELNORD started to put in place the Strategic Sustainable Regional Development Plan for Akkar, in cooperation with a team of subject matter experts in environmental sciences, economics, urban planning and social development. The experts were assigned by the technical assistance (GFA –ELARD) under the above-mentioned terms of reference. In this context, the final version of the Strategic Sustainable Regional Development Plan for Akkar, Hermel and Dannieh was completed in cooperation with a team of subject matter experts in environmental sciences, economics, urban planning and social development, assigned by the technical assistance (GFA –ELARD) in liaison with local authorities.
- 3- Within the framework of the initiative aimed at providing technical support for the creation of a national park in the mountainous areas of Akkar, ADELNORD put in place a tender document pertaining to a technical study for the creation, management and regulation of natural reserves in Lebanon, in coordination with the Ministry of Environment. Because national parks are considered natural reserves, these steps will be preliminary to the provision of technical support for the creation

of a national park in Akkar. In 2012, the project launched the said study which culminated in a detailed technical report and draft law on natural reserves, approved by the Ministry of Environment on 2013 and referred to the relevant parliamentary committees for review and approval.

- 4- In 2014, the relevant parliamentary committees approved the Natural Reserves Law which was developed by the CDR. Also in 2014, the CDR, through ADELNORD, completed the draft implementing decree of the Natural Reserves Law and submitted it to the Ministry of Environment.
- 5- Within the framework of the initiative aimed at fire suppression and forest protection and management, ADELNORD put in place in 2012 two plans for the management of the forests of Andkit-Akkar and Safira-Dannieh that culminated in the elaboration of the terms of reference for forest management including pruning. This task was carried out by experts specialized in forest and shrub land management and fire suppression, in close cooperation with the municipalities and the shrub land stations of Akkar and Dannieh and with the Ministry of Agriculture.

In 2013, the CDR submitted to the Ministry of Agriculture a final report containing two plans for the management of the forests of Andkit-Akkar and Safira-Dannieh and the related two terms of reference, awaiting approval of the Ministry of Agriculture.

Upon the request of the Ministry of Agriculture, the CDR launched the second phase of this mandate which includes.

1. Implementation of a training program targeting forests guards and local activists;
2. Supply of forest management tools and equipment;
3. Suggestion of a monitoring and evaluation mechanism to implement the two management plans of the Forests of Andkit and Safira.

With regard to the environmental impact assessment (EIA) and strategic environmental assessment (SEA), the CDR required until the end of 2011, the preparation and commissioning of EIAs and SEAs as a mandatory condition for many projects, in accordance with the standards of the World Bank, the EU, and other international scientific references. After the issuance of Decree No. 8213 dated 24/05/2012 on “the Strategic Environmental Assessment of Public Draft Policies, Plans and Programs” and Decree No. 8633 dated 07/08/2012 on “Environmental Impact Assessment Rules”, SEAs and EIAs became mandatory for all projects described in the said decrees.

The CDR participated in a) the development of national environmental reports, together with donors, ministries, and other authorities, by attending workshops and round table discussions, and b) the suggestion of the necessary recommendations, including but not limited to the following:

- The “Millennium Development Report 2010” for Lebanon issued by the UNDP;
- The “Country Environmental Assessment” report issued by the World Bank in cooperation with the Ministry of Environment;
- The Lebanon 2012 National Report to the United Nations Conference on Sustainable Development (UNCSD), also known as Rio+20, in cooperation with UNDP, ESCWA, and relevant ministries, as a preparatory phase for attending the Conference held in June 2012.

The CDR participated in the follow-up of several environmental programs executed by the Ministry of Environment and the UNDP, through liaison committees, or pursuant to financial assistance agreements. These projects tackled the issues of biodiversity, climate change, and institutional capacity-building.

#### **Work progress in 2017:**

Within the context of the Environmental Fund for Lebanon (EFL) project funded by the Government of Germany, the Fund provided the required technical assistance to industrial Lebanese businesses, in the form of grants, which allowed the preparation of a preliminary environmental study to identify the investments needed for

industrial pollution abatement and secure soft loans to implement them. The EFL has prepared detailed environmental studies for thirteen enterprises to help them identify the sources of industrial pollution caused by the production process and their treatment methods, along with proposing a preliminary economic feasibility study for each of the targeted enterprises. EFL provided technical support to other industrial enterprises in Lebanon seeking to develop preliminary studies to reduce industrial pollution and its impacts.

The CDR continued to implement the ADELNORD project, funded by an EU grant agreement, namely its environmental component. The CDR also collaborated with the Ministry of Environment regarding the approval and enforcement of the natural reserves draft implementing decree, and with the Ministry of Agriculture regarding the ratification of the two management plans of Andkit-Akkar and Safira-Dannieh, and the two terms of reference related to forest management including pruning, fire suppression and forest protection and management.

On a different note, and after issuance of the Decree No. 8213 dated 24/05/2012 regarding “Strategic Environmental Assessment of Public Draft policies, Plans and Programs”, and Decree No. 8633 dated 07/08/2012 regarding the “Environmental Impact Assessment Rules”, the Council for Reconstruction and Development (CDR) started including these two decrees and their related requirements as mandatory items to be described in the tender documents of all projects, in due course of law. The CDR is now in the process of preparing environmental impact assessments for many infrastructure projects for schools, hospitals, roads and sewage water treatment plants. Moreover, the CDR is preparing two strategic environmental assessments for the Sustainable Strategic Development Plan for Akkar, as part of the ADELNORD project, as well as a strategic environmental assessment related to the Sustainable Strategic Development Plan for Sour.

In 2017, additionally, the CDR - through its participation in liaison committees - continued to execute works related to the following:

- The Integrated Waste Management in Baalbek Caza (Lebanon) project, funded by the Italian Agency and implemented by the Ministry of Environment. The review of the first draft of the Master Plan for the solid waste sector in Baalbek-Hermel is underway along with the preparation of the tender documents to outsource works and executive tasks. It is worth noting that an environmental impact assessment of the project was developed.
- The “ENPI Horizon 2020 Capacity Building” project, funded by EU/MAP and implemented by the Ministry of Environment, in cooperation with the CDR. The CDR participates in liaison committees’ meetings and in training workshops on the management of solid waste, wastewater and industrial emissions. The CDR also suggests Lebanese representatives from the private sector and the civil society, involved in the previous topics, in order to build their capacities and increase the number of local specialists in these fields.

The CDR continues to follow-up on environmental projects executed by the Ministry of Environment and funded by the United Nations Development Program (UNDP) in the following fields:

In management:

- Institutional support for the Ministry of Environment.

In preserving natural resources:

- The Small Grants Program funded by the Global Environment Facility (GEF), which provides financial assistance to small pilot projects managed by civil society organizations.

In air pollution reduction:

- Institutional Support for the Ozone Office located at the Ministry of Environment in Lebanon (Phase Five).

- The CEDRO project targeting the energy efficiency and renewable energy applications for public sector buildings and facilities (in the South, Bekaa and Akkar).

- The “Toward Sustainable Energy Production” project.

In nature preservation:

- Project to support the National Forestation Plan.

- Migratory Birds Project.

- Preservation of Medicinal Herbs Project.
- Preservation of Forest Resources Project.

Also, the CDR is in the process of implementing a project to construct a wholesale fruits and vegetables market in Tripoli, and a study for the construction, rehabilitation and equipping of the slaughterhouse of Tripoli.

Major projects and activities that CDR will pursue in 2018:

- Coordinating with the Ministry of Environment to approve and put into effect the Draft Law on Natural Reserves and its draft implementing decree.
- Coordinating with the Ministry of Agriculture regarding the approval and ratification of the two management plans for Andkit in Akkar and Safira in Dannieh, and regarding the terms of reference pertaining to forest management -including pruning-, fire suppression and forest protection and management.
- A project aimed at reforesting West Bekaa, creating local job opportunities and impleme

nting awareness activities; A project aimed at creating an eco-tourism strategy for the fishing industry on the Lebanese coastline; A project aimed at controlling natural resources in Lebanon; A self-assessment project in preparation for the Third Conference on Climate Change and for the national climate change report; in addition to the project on the provision of institutional support to the Ministry of Environment.

The CDR will also continue to follow up on the preparation of environmental projects that will be implemented in 2018 by the Ministry of Environment with funds provided by the UNDP, among which:

- The Third National Communication project to the UNFCCC.
- The Capacity Building Project for Reducing Emissions in Lebanon.
- The National Work Program to Introduce Climate Change to Development Works in Lebanon.

The CDR will also continue to follow up on the preparation of other environmental projects that will be implemented in 2018, among which:

- Enterprises Environmental Compliance project funded by the World Bank.
- A second project for Enterprises Environmental Compliance funded by the Government of Italy.
- The Biodiversity Project funded by the GEF.
- A project for climate change funded by the EU.
- A second project for climate change funded by the GEF.
- Project for the Protection of the Ozone Layer funded by the Montreal Protocol.
- Project to support a Management Unit for the Lebanese Industrial Pollution Abatement Project.
- Support to the Lebanese Environmental Pollution Abatement Project.
- Support to the Syrian Crisis (Sustainable Energy and Water).
- Sustainable Land Management of Qaroun Watershed.
- GEF 6 cycle.

## 1- Cultural Heritage and Urban Development

### Cultural Heritage Preservation and Urban Development Project:

The Council for Development and Reconstruction (CDR), in partnership with the Directorate General of Antiquities and the concerned municipalities, launched a project for the preservation of cultural heritage and urban development in five historic cities in Lebanon: Tripoli, Byblos (Jbeil), Sidon, Tyre and Baalbeck. By having set the goal of improving the historic infrastructure and archaeological sites of these five cities, the project is intended to a) create an adequate environment to achieve local economic development and b) provide the required technical assistance to improve the preservation, regulation and management of Lebanon's cultural heritage.

### The project's components are:

- Rehabilitation of historic city centers and part of their Infrastructure: This component aims at renovating the historic locations in the five targeted cities, through the following works: renovation and creation of public squares and green spaces; renovation of certain markets and pedestrian zones; renovation and protection of certain historic buildings and determination of their intended use; support and promotion of economic tourist activities; assistance in the renovation of a number of private traditional homes; organization of traffic in the surroundings of historic areas and creation of car parks. In addition, the infrastructure will be renovated in a number of streets in these five cities, to install drinking water networks and renovate wastewater networks.
- Protection, Maintenance and Management of Archaeological Sites: This component aims at developing archeological sites in Baalbeck, Sidon and Tyre and includes the following activities: Research and documentation regarding archeological sites; restoration and reinforcement of several archeological monuments including Bacchus and Jupiter temples in Baalbeck and the Sidon Land Castle; management of archeological landmarks; protection of locations and fitting them out to receive visitors by - for example- establishing visitor and information centers.
- Provision of technical assistance to Institutions involved in the Project's implementation: This includes all activities that contribute to the improvement of the performance of targeted institutions to ensure the sustainability and continuity of the project. These institutions are: the municipalities of the five cities, the Directorate of Antiquities and the Directorate of Urban Planning. This project plays a major role in boosting tourism in the targeted cities and works towards enhancing and upgrading geographic, economic and social infrastructure which will eventually lead to local economic development and creation of new job opportunities.

### The project faced many obstacles and challenges which obstructed its execution within the initial set timelines, including but not limited to the following:

- Security situation in Lebanon
- Increased construction costs
- Change in municipality structures during the term of the project and the necessity to re-explain the projects and make several amendments
- Change in cabinet and parliamentary structures during the term of the project and the necessity to re-explain the projects and make several amendments
- Presence of several trespasses on the work sites which are often hard to remove
- People's resistant to change
- Delay in the execution of all clauses of the Additional Funding Agreement, pending its approval by the Parliament
- Security situation that hindered the arrival to Lebanon of the foreign committed companies and hindered the execution of works as scheduled

Despite the many challenges encountered and following the completion of the first phase, the project surveyed the opinions of the citizens and visitors of the five targeted cities, the concerned ministries and the municipalities. As shown by the surveys, the importance of the project lies in improving the living, social, and environmental conditions in the targeted regions. It was also noticed that there is a growing awareness in communities regarding the importance of cultural heritage preservation.

The CDR raised additional funds from the World Bank and the French Development Agency to complement the projects prescribed in the Initial Funding Agreement.

In an attempt to develop and widen the scope of the experience of the Cultural Heritage Preservation and Urban Development Project, the CDR is currently negotiating with donors to raise the funds required to execute additional works in the five targeted cities and to widen the scope of the project to include other cities in Lebanon.

#### **Main Achievements (1992-2013):**

Funds were raised to carry out the activities of the project as follows:

- A US\$ 31.5 million loan agreement was concluded with the International Bank for Reconstruction and Development (IBRD). The agreement was referred by the Council of Ministers by Decree 10858 of September 9, 2003 and ratified by the Parliament pursuant to Law 555 of 31/01/2004.
- A EUR 12 million loan agreement was concluded with the French Development Agency. The agreement was referred by the Council of Ministers pursuant to Decree 11163 of 14/10/ 2003 and ratified by the Parliament pursuant to Law 556 of 30/01/ 2004.
- On May 3, 2006, the CDR signed a EUR 10 million agreement to implement the part allocated in the Italian Protocol for the cultural heritage project.
- On November 28, 2007, the CDR signed EUR 500,000,000 grant agreement with the French Development Agency, to provide support to the Directorate of Antiquities. The agreement was referred by the Council of Ministers pursuant to Decree 1058 of November, 24 2007.
- On October 7, 2008, the CDR signed a grant agreement with the Italian government stipulating the allocation of an amount of EUR 2.2 million for the Cultural Heritage project.
- A EUR 21 million additional loan agreement was signed with the French Development Agency and referred to the Council of Ministers and the Parliament for approval. The agreement was referred by the Council of Ministers by Decree 7554 of 25/01/2012 and ratified by the Parliament by Law 282 of 30/04/2014.
- A EUR 27 million Additional Fund Agreement was signed with the International Bank for Reconstruction and Development, and was referred to the Council of Ministers and the Parliament for approval. The agreement was referred by the Council of Ministers by Decree 8992 of 29/9/2012 and was ratified by the Parliament by Law 255 of 15/04/2014.

In 2002, The CDR completed the detailed preliminary studies of the project in particular the studies related to five targeted cities: Tripoli, Byblos, Baalbeck, Sidon, and Tyre.

- The CDR created a project management unit (PMU) which consists of consultants responsible for the follow-up and management of the project. For this purpose, the CDR recruited a multi-specialty team composed of a procurement expert; an architect specialized in restoration, a civil engineer, a sociologist and an archeologist who will provide oversight over the works linked with the Directorate of Antiquities.
- The CDR created local municipal management units in the five targeted cities, composed of engineers, specialists, sociologists and economists. The CDR recruited ten specialists who will provide oversight over the project, in coordination with relevant municipalities in the five cities.

#### **The specialists carry out the following tasks:**

- a. supervision of works;
  - b. coordination and cooperation with municipal, administrative and technical authorities, and with the Directorate General of Urban Planning, the Directorate General of Antiquities, the offices of the Ministry of Tourism and other public institutions involved in the implementation of the project in the five cities;
  - c. Coordination with the citizens, local communities and local and civil society organizations during different phases of the project.
- In 2004, the CDR completed the detailed studies and tender documents related to the first part of the works for the five cities (US\$ 12 million). This enabled CDR to release a call for tenders and award the contracts related to the renovation and restoration works in the five cities.
  - The first phase site works started in the summer of 2005 in Tyre, Tripoli, Baalbeck, Byblos and Sidon, consecutively.

- Supervision contracts for the five cities were awarded in the summer of 2005.
- The CDR signed a contract to assess indicators related to the economic, touristic and social impact of the project in the five cities at the end of 2005.
- During 2006, the CDR commissioned consultancy firms to develop detailed studies and tender documents of the second phase works in Tyre, Tripoli, Byblos and Baalbeck. This enabled CDR to release the call for tenders and to award the relevant infrastructure and restoration works, in 2007.
- In February 2007, the renovations of the western coastal road in Tyre were wrapped up.
- Consultants developed traffic plans, traffic flow organization plans and created convenient parking lots in several historical cities.
- In 2007, a contract was awarded to provide oversight over the environmental impact plan in the five cities.
- In the beginning of 2007, the renovations of the facades in the northern souks (Group 1) in Tripoli were wrapped up.
- In May 2007, works to relocate the inhabitants of Bloc A in Khan Al Askar in Tripoli were wrapped up, followed by the completion of works to relocate the inhabitants of Bloc B in February 2008. This resulted in the relocation of most of the inhabitants of Khan Al Askar to their apartments in December 2009.
- In August 2007, the contract with the South for Construction to execute the renovation works in the souks of the old city in Sidon (phase 1 – Bab As-Saray square and the tourist passageway) was terminated. The remaining works were incorporated in the project on the renovation of the old souk (phase 2), the electrical works and the renovation of two old buildings in the old city.
- At the end of 2007, the renovation of mud houses in Al Qalaa neighborhood in Baalbeck (phase 1), the renovation of roads, public squares and infrastructure in Byblos (phase 1) and the renovation of facades in Al Sweyqa in Bab AtTabbaneh in Tripoli were wrapped up.
- During 2008, detailed studies for the renovation of the archeological sites in Baalbeck and Tyre- phase 1 were elaborated.
- In May 2008, the renovation works for the facades in the northern markets in Tripoli (group 2) and the phase 1 works in Tyre (the cultural path near the archeological site) were wrapped up.
- In August 2008, the renovations of roads, public squares and infrastructure (phase 2) started in Byblos.
- In August 2008, the renovations of the facades of the northern markets in Tripoli were wrapped up.
- At the end of 2008, the renovation of the foundation wall at Tyre archeological site was wrapped up.
- Detailed studies for the renovation of Tripoli Castle were elaborated.
- In 2006, the archeological map of Tyre was developed.
- The Technical Support Project for the municipalities of Tripoli and Tyre was launched.
- During 2009, environmental workshops were conducted in municipalities and attended by municipal employees, representatives of polluting industries, engineers and environmentalists etc... The purpose of the workshops was to increase awareness and improve performance in the field of environment preservation.
- The study for the renovation project of Shqeef Castle in Arnoun - Nabatiyeh was elaborated.
- The renovations and restorations in the markets of the old Souk in Sidon (phase 1) were wrapped up.
- In May 2009, the restoration project for Al-Bawaba Square, Hamra Street, and Al-Jaafarih region was launched.
- - In April 2009, the renovation and restoration of the presidential wing at the Beiteddine Palace started and were wrapped up in July of that same year.
- In November 2009, the detailed studies for the Sidon Land Castle renovation were developed.
- In December 2009, the detailed studies for the restoration and renovation of Deir Al Qalaa in Beit Mery were put in place.
- In 2010, the restoration and renovation of Hammam Ezzeddine were wrapped up.
- In February 2010, the renovation of the Fishermen port and its seafront in Tyre started.
- In April 2010, the renovation works of the old city squares and seafront building facades of the old city in Sidon were launched.
- In May 2010, the renovation works of the tourist passageway, section 2, and the electric works in addition

to the renovation of two traditional buildings in the old city were launched.

- In June 2010, the renovation works of the Tripoli Castle started.
- In June 2010, the renovation works of the infrastructure in Baalbeck and Tyre archaeological sites started.
- In September 2010, a contract was signed with the National Institute of Administration to provide training to the employees of the Directorate General of Antiquities.
- In October 2010, the renovation works of the Qala'at el-Shaqif in Arnoun were launched.
- In October 2010, a contract was signed for the procurement of office furniture for the Directorate General of Antiquities.
- In October 2010, the renovation works of Khan Al Askar started.
- In January 2010, delivery of the building intended for the relocation of the inhabitants of Bloc C in Khan Al Askar in Tripoli.
- In February 2011, office furniture was delivered to the offices of the Directorate General of Antiquities.
- In August 2011, the renovations of roads, public squares and infrastructure (phase 2) were completed in Byblos.
- In December 2011, office equipment was procured for the Directorate General of Antiquities.
- In November 2011, two vehicles were purchased for the Directorate General of Antiquities.
- In October 2011, a conference on "Tyre's history through archeology" was held in "Beit el Mamlouk" in Tyre, under the patronage of the Minister of Culture, and was attended by the Chairman of CDR and the French ambassador. International experts participated in the event.
- A training session was conducted for the employees of the Directorate General of Antiquities.
- Detailed studies for the renovation of the Chamaa Castle were formulated in July 2012.
- In August 2012, underwater archeological material was procured to the benefit of the Directorate General of Antiquities.
- In August 2011, the detailed studies related to the renovation of Khan Al Qishleh in Sidon and Baalbeck Saray, were launched.
- Topographic supplies were procured to the benefit of the Directorate General of Antiquities.
- The technical assistance contract to the benefit of the Directorate General of Antiquities was signed, to select antique objects, organize these object labels and display them at the Tripoli Hall Museum in May 2012.
- In October 2012, the restoration of Khan El Askar was wrapped up.
- The urban planning administrative support plan was completed.
- A call for tenders was released to outsource the renovations and restorations of roads, infrastructure, facades and car parks in Baalbeck historical city – Phase II (Section 1), awaiting the approval of the World Bank additional funds by the Parliament.
- Scientific reports were elaborated for the UNESCO World Heritage Centre, as part of the technical assistance prescribed in the Technical Agreement Contract signed to the benefit of the Directorate General of Antiquities.
- A call for tenders was released to outsource the restorations and renovations of the two historical sites of Baalbeck and Tyre, restricted to Italian contractors.
- A call for tenders was released to outsource the restorations and renovations of the historical Chamaa Castle. Only one bidder submitted a proposal. The study was modified following the collapse of a part of the Castle's tower and a new tender document was elaborated to release a new call for tenders.
- The Cultural Heritage Unit continued to provide technical support during the preparation of the detailed studies for the Archeology Museum in Sidon and during the commencement of site works.
- A contract was signed in April 2013 to outsource the renovation of ASNADMIR Mill in Tripoli and the Land Castle.
- Continuation of the restoration and renovation of Khan Al Askar.
- Execution of the additional works in the building intended for the relocation of the inhabitants of Bloc C in Khan Al Askar, and making repairs and alterations to the buildings intended for the relocation of the inhabitants of Bloc A and Block B in Khan Al Askar in Tripoli.

- Completion of rehabilitation works at Al-Bawaba Square, Hamra Street and Al Jaafariya.
- Completion of rehabilitation works at the Fishermen Port and its seafront in Tyre.

#### **Work progress in 2014:**

- Supervision over the Environmental Impact Plan in the CHUD five targeted cities.
- Handover of the restoration and renovation of Beiteddine Palace (water isolation works).
- Continuation of restoration of Qala'at el-Shaqif in Arnaoun.
- Preparations for the release of a call for tenders for the restoration of Beit Mery archeological site.
- Continuation of the infrastructure project in Baalbeck and Tyre archeological sites.
- The Cultural heritage Unit team holds regular meetings with the stakeholders supervising the construction of the Beirut National Museum and providing technical support to the project.
- Re-release of a new call for tenders for the restoration of Chamaa Castle.

#### **Sidon:**

- Continuation of the site works of the tourist passageway, phase II, and the electricity works in addition to the renovation of two traditional buildings in the old city.
- Continuation of the renovations of Sidon old city squares and seafront facades (works are inactive due to lack of funding).
- Preparation of a tender document and detailed studies related to Khan Al Qishleh renovation project, as a preparatory step for the release of a call for tenders.
- Continuation of the Sidon Land Castle site works.

#### **Tripoli:**

- Continuation of the works for the renovation of the surrounding area of Al Burtassi mosque and Abu Ali Riverbank and construction of an awning above a section of the banks stretched within the old city.
- Award of the contract related to the guardianship and maintenance of Khan El Askar.
- Hand-over of Citadel of Tripoli restoration works.
- Hand-over of the additional site works related to the relocation of Khan El Askar Bloc C, and repairs and modifications of Blocs A and B of Khan El Askar in Tripoli.

#### **Tyre:**

- Continuation of the renovation works at the fishermen port and its seafront in Tyre, and construction of fishermen building according to the modified designs.
- Signature of a contract related to the archeological site renovation works, Phase I.

#### **Baalbeck:**

- Continuation of infrastructure renovation at the archeological sites of Baalbeck and Tyre.
- Signature of a contract related to the "rehabilitation of roads, infrastructure, building facades and parking lots in the historic city of Baalbeck (Phase II – Section (1), and commencement of site works.
- Signature of a contract related to archeological renovation works at the archeological site, Phase I.

#### **Byblos:**

Signature of a contract related to the construction of a parking lot in the city.

#### **Main Contracts signed during 2014:**

The CDR signed the following contracts:

- Signature of a contract related to the city of Baalbeck works – Phase II.

- Signature of a contract related to the construction of a parking lot in the city of Byblos.
- Signature of a contract related to the archeological projects in Baalbeck and Tyre – Phase II.
- Signature of a contract related to the supervision over Baalaback site works – Phase II.
- Signature of a contract related the supervision over the Byblos parking lot construction works.

#### **Work progress in 2015**

The CDR prepared the following studies and documents:

- Plans related to social projects accompanying the CHUD project.
- Plans related to local economic development in the CHUD five targeted cities.

The CDR outsourced the following works:

- Preparation, development and filming and production of a documentary about CHUD.
- Development of CHUD project's environment impact assessments.
- Restoration works at the archeological project in Deir El Kalaa.
- Restoration works at Beiteddine Palace – Phase II.
- Rehabilitation works at Chamaa castle.
- Excavation works at the Archeological Museum of Beirut.

#### **1. Baalbeck:**

- Release of a call for tenders for the renovation of the Baalbeck Saray.
- Commencement of the restoration works at the archeological site -phase II.

#### **2. Sidon:**

- Release of a call for tenders for the renovation of Khan Al Qishleh.

#### **3. Tripoli:**

- Outsourcing of the guardianship and maintenance works at Khan Al Askar.
- Preparations for the outsourcing of detailed studies related to the renovation of Khan Al Saboun and Property No. 131.
- Preparations for the outsourcing of detailed studies related to the restoration of the eastern facades of Abu Ali River.
- Preparations for the release of a call for tenders for the renovation of the facades, roads, and public squares in the northern and eastern souks, phase II.
- ISNADMIR Mill restoration works.
- Preparations for the completion of Abu Ali River sites works.

#### **4. Tyre:**

- Preparations for the release of a call for tenders to outsource the completion of Tyre southern costal roads site works.
- Preparations for the release of a call for tenders to restore Tyre old souks.
- Commencement of Al-Bawaba Square and parking spaces renovation works.

#### **Work progress during (2016):**

The CDR prepared the following studies and documents:

- Preparation of economic impact studies related to the Cultural Heritage and Urban Development (CHUD) project.

- Plans related to the social projects accompanying the CHUD project.
- Plans related to local economic development in the five targeted historical cities.
- Preparation, development, filming and production of a documentary about CHUD.
- Preparation of the final report about the surveys on the status of municipal services and the monitoring of social and economic indicators of the CHUD project until 30/11/2016.
- All works of the World Bank-funded CHUD Project have been completed and the two loans closed.
- Local funding has been secured for the execution of works that complement the Qala'at el-Shaqif rehabilitation project.

The CDR also outsourced and continued the following works and studies:

- Restoration works at Beiteddine Palace – Phase II.
- Excavation works at the Archeological Museum of Beirut.
- Chamaa castle renovation works.
- Preparation of the tender document of Deir el Kalaa archeological project.
- Preparations for the release of a call for tender to outsource the detailed study for the renovation of Tebnine Castle and its surrounding area.

#### **1. Baalbeck:**

- Outsourcing of Baalbeck Saray renovation works.
- Renovation works in the archeological site – Phase II.

#### **2. Sidon:**

- Outsourcing of Khan Al Qishleh rehabilitation works.
- Continuation of Sidon Castle rehabilitation works.

#### **3. Tripoli:**

- Extension of Khan Al Askar guardianship and maintenance works contract.
- Release of a tender to outsource the detailed studies related to the rehabilitation of Khan Al Saboun and Property No. 131.
- Release of a tender to outsource the detailed studies related to the restoration of the eastern facades of the Abu Ali River.
- Release of a tender to outsource the renovation of facades, roads, and public squares in Tripoli, phase II (Sections 4, 6 and 8).
- Release of a tender to outsource the renovation of facades, roads, and public squares in the northern and eastern souks of Tripoli, phase II (Sections 5 and 7).
- Continuation of sites works for the restoration of the ISNADMIR Mill.
- Outsourcing of the project intended to complement the Abu Ali River site works projects.
- Outsourcing of the implementation of two local economic development projects in Tripoli.

#### **4. Tyre:**

- Release of a tender to outsource the development of detailed studies for the project aimed at completing the rehabilitation of Tyre southern sea corniche.
- Release of a tender to outsource the development of detailed studies for the project aimed at the restoration of Tyre old souks.
- Completion of Al-Bawaba square and parking spaces rehabilitation project.
- Renovation works in the archeological site (Phase II)

#### **Main projects under preparation (2017-2018)**

- Provision of assistance to the World Bank in developing its final Work Completion Report regarding the Cultural Heritage Project funded by the Bank; the funder gave a “fair” rating to the implementation of the project.
- Hand-over of Khan al Askar site in Tripoli to an official authority for management and operation.
- Outsourcing of the renovation of facades, roads, and public squares in the northern and eastern souks in the city of Tripoli, Phase II (sections 4, 6 and 8).
- Outsourcing of the renovation of facades, roads, and public squares in the northern and eastern souks in the city of Tripoli, Phase II (sections 5 and 7).
- Outsourcing of Khan el Saboun rehabilitation works.
- Outsourcing of the restoration works of Abu Ali Riverbank facades in Tripoli.
- Outsourcing of the rehabilitation works of Tyre old souks and completion of Tyre south sea corniche.
- Outsourcing of the detailed study related to the renovation of Tebnine Castle and its surrounding area.
- Outsourcing of Beiteddine Palace renovation works -Phase III.
- Outsourcing of the complementary works of Qala’at el-Shaqif rehabilitation project.

### Work Progress in 2017

The CDR prepared the following studies and documents:

- Provision of assistance to the World Bank in developing its final Work Completion Report regarding the Cultural Heritage Project funded by the Bank; the funder gave a “fair” rating to the implementation of the project.
- Hand-over of Khan al Askar site in Tripoli to an official authority for management and operation.
- Outsourcing of the renovation of facades, roads, and public squares in the northern and eastern souks of the city of Tripoli, Phase II (sections 5 and 7).
- Outsourcing of the studies related to Khan el Saboun rehabilitation project.
- Outsourcing of the studies related to the restoration of Abu Ali Riverbank facades in Tripoli.
- Outsourcing of the studies related to the rehabilitation of Tyre old souks and completion of Tyre southern sea corniche.
- Outsourcing of the studies related to the renovation of Beiteddine Palace – Phase III.
- Outsourcing of the complementary works of Qala’at el-Shaqif rehabilitation project.
- Outsourcing of the studies related to the renovation of Tebnine Castle and its surrounding area.
- Additionally, the CDR outsourced and continued the following works:
- Restoration works at Beiteddine Palace – Phase II.
- Excavation works at the Archeological Museum of Beirut.
- Chamaa castle restoration works.
- Preparation of the tender document related to Deir el Kalaa archeological project.

#### 1. Baalbeck:

- Continuation of Baalbeck Saray renovation works.
- Continuation of the archeological site – Phase II restoration works.

#### 2. Sidon:

- Continuation of Khan Al Qishleh rehabilitation works.
- Continuation of Sidon Castle rehabilitation works.

#### 3. Tripoli:

- Extension of Khan Al Askar guardianship and maintenance works contract.
- Outsourcing and follow up on the detailed studies related to the rehabilitation of Khan Al Saboun and

Property No. 131.

- Outsourcing and follow up on the detailed studies related to the restoration of Abu Ali Riverbank facades.
- Outsourcing and follow up on the renovation of facades, roads, and public squares in Tripoli, phase II (Sections 4, 6 and 8).
- Outsourcing and follow up on the renovation of facades, roads, and public squares in the northern and eastern souks of Tripoli, phase II (Sections 5 and 7).
- Continuation of ISNADMIR Mill restoration works.
- Continuation of the project intended to complete the works at Abu Ali River.

#### 4. Tyre:

- Outsourcing and follow-up on the development of detailed studies for the project aimed at completing the rehabilitation of Tyre southern sea corniche.
- Outsourcing and follow-up on the development of detailed studies for the project aimed at the restoration of Tyre old souks.
- Completion of Al-Bawaba square rehabilitation works and installation of on-street smart parking meters across the city.
- Renovation works at the archeological site (Phase II).

#### Main projects under preparation for 2018-2019

- Hand-over of the Khan al Askar site in Tripoli to an official authority for management and operation.
- Outsourcing of Khan el Saboun rehabilitation works.
- Outsourcing of restoration works of Abu Ali Riverbank facades in Tripoli.
- Outsourcing of Tyre old souks rehabilitation works and completion of Tyre southern sea corniche.
- Outsourcing of Tebnine Castle and its surrounding area restoration works.
- Outsourcing of Beiteddine Palace restoration works.
- Outsourcing of the complementary works of Qala'at el-Shaqif rehabilitation project.

#### Main contracts signed in 2014

| Project  | Contract Value (USD) | Source of Funding | Scheduled Start Date | Scheduled Completion Date |
|--|----------------------|-------------------|----------------------|---------------------------|
| Phase II works – Saleh Haidar Abdel Halim Hajjar in the City of Baalbeck | 3,210,761            | World Bank        | 13/11/2014           | 12/05/2016                |
| Supervision over Phase II works in the City of Baalbeck                  | 130,587              | Local             | 13/11/2014           | 12/05/2016                |

#### Main contracts signed in 2015

| Project  | Estimated Value (USD) | Source of Funding          | Scheduled Start | Scheduled Completion |
|--|-----------------------|----------------------------|-----------------|----------------------|
| Guardianship and maintenance of Khan Al Askar in Tripoli | 389,193               | World Bank & Local funding | 10/02/2015      | 02/02/2018           |
| Construction of a car parking in Byblos                  | 1,706,307             | World Bank & Local funding | 15/04/2015      | 01/03/2017           |

|   |             |   |            |            |
|---|-------------|---|------------|------------|
| Supervision over Phase III works in Byblos  | 85,315      | local   | 15/04/2015 | 01/03/2017 |
| Preparation, development, filming and production of five short documentary films about CHUD | 174,412     | World Bank  | 23/07/2015 | 31/12/2016 |
| Outsourcing of Chamaa Castle restoration  | EUR 499,900 | Italy   | 18/09/2015 | 30/04/2018 |
| Excavation works at the Archaeological Museum of Beirut                                     | 3,353,880   | Kuwait Fund for Arab Economic Development (KFAED) | 16/06/2015 | 14/11/2018 |
| Supervision over excavation works at the Archaeological Museum of Beirut                    | 150,925     | Kuwait Fund for Arab Economic Development (KFAED) | 16/06/2015 | 14/11/2018 |
| Environment impact assessment of the Cultural Heritage and Urban Development Project        | 92,314      | World Bank  | 11/10/2015 | 31/12/2016 |
| Restoration works at Baalbeck and Tyre historic sites – Phase II                            | 3,065,356   | Italy   | 04/11/2015 | 03/11/2017 |

**Main contracts signed in 2016**

| Project   | Estimated Value (USD) | Source of Funding                                       | Scheduled Start | Scheduled Completion |
|---|-----------------------|---|-----------------|----------------------|
| Continuation of rehabilitation works at Abou Ali riverbanks     | 4,309,472             | French Development Agency, World Bank and local funding | 10/02/2016      | 09/11/2018           |
| Implementation of local economic development project in Tripoli | 80,236                | World Bank  | 01/07/2016      | 31/12/2016           |
| Implementation of local economic development project in Tyre    | 79,969                | World Bank  | 01/07/2016      | 31/12/2016           |
| Renovation and rehabilitation of Khan al Qishly in Sidon        | EUR 1,718,527         | Italy   | 01/08/2016      | 15/05/2018           |

**Main contract signed in 2017**

| Project  | Estimated Value (USD) | Source of Funding         | Scheduled Start Date | Scheduled Completion Date |
|--|-----------------------|---------------------------|----------------------|---------------------------|
| Renovation and rehabilitation of Baalbeck Saray building                                       | EUR 849,966           | Italy                     | 26/07/2017           | 25/01/2019                |
| Rehabilitation of facades, roads, and public squares in Tripoli-phase II (sections 4,6, and 8) | 6,398,101             | French Development Agency | 20/11/2017           | 19/05/2019                |

|  |            |                           |            |            |
|--|------------|---------------------------|------------|------------|
| Development of detailed studies and oversight over the renovation of Khan Al Saboun and Property No.131      | 216,700    | French Development Agency | 31/11/2017 | 31/12/2019 |
| Development of detailed studies and supervision over the restoration of Abu Ali Riverbank facades in Tripoli | 240,125    | French Development Agency | 31/11/2017 | 31/12/2019 |
| Development of detailed studies and supervision over the restoration of Tyre old souks and southern corniche | 210,375    | French Development Agency | 31/11/2017 | 31/12/2019 |
| Development of detailed studies for the renovation of Tebnine Castle and its surrounding area                | EUR 78,000 | French Development Agency | 05/06/2017 | 04/03/2018 |
| Provision of technical support to the funder to continue the works at the Sidon Archeological Museum         | 4,400,000  | KFAED & AFESD             |            |            |

**Main projects under preparation for 2018-2019**

| Project   | Estimated Value (USD) | Source of Funding         | Scheduled Start Date | Scheduled Completion Date |
|---|-----------------------|---------------------------|----------------------|---------------------------|
| Rehabilitation of facades, roads, and public squares in the northern and eastern souks of Tripoli-phase II (sections 5 and 7) | 3,850,440             | French Development Agency | 01/06/2018           | 01/12/2019                |
| Rehabilitation of Beiteddine Palace (Presidential Suite)  | 490,442               | GoL                       | 01/09/2018           | 31/12/2019                |
| Khan Al Saboun renovation works   | EUR 1,792,000         | French Development Agency | 01/01/2019           | 31/12/2019                |
| Restoration of Abu Ali Riverbank facades  | EUR 1,750,000         | French Development Agency | 01/01/2019           | 31/12/2019                |
| Restoration of the old souks in Tyre and continuation of Tyre southern sea corniche   | EUR 1,800,000         | French Development Agency | 01/01/2019           | 31/12/2019                |
| Rehabilitation of Beiteddine Palace   | 1,350,000             | GoL                       |                      |                           |

|  |            |   |            |            |
|--|------------|---|------------|------------|
| Renovation works at Beit Mery Archeological Site                                   | 400,00     | GoL                                       |            |            |
| Site works at the Archeological Museum of Beirut                                   | 25,000,000 | Kuwait Fund for Arab Economic Development | 31/12/2019 | 01/01/2021 |
| Old Souk works in Douma (renovation of facades, public squares and infrastructure) | 3,000,000  | No Funding                                |            |            |
| Restoration works at the Tebnine Castle and its surrounding area                   | 5,000,000  | No funding                                |            |            |



**Guest House - Baalback (CHUD)**



**Rehabilitation of Abu Ali River Sides - Tripoli (CHUD)**



**Al-Bawaba square - Tyre (CHUD)**



**Construction of Fishermen Syndicate Building Tyre (CHUD)**



**Rehabilitation Old Streets - Tyre (CHUD)**

## Drinking Water Sector

### **Sector Overview**

In the aftermath of the Lebanese civil war, the existing potable water facilities were limited to incomplete networks in main cities and other smaller networks in other Lebanese regions. The water insufficiency was accompanied by the increase in the underground and surface water pollution resulting from free wastewater discharge, yet creating health-threatening and environmental problems.

### **The ever since insufficiency in potable water supply is due to several reasons, mainly:**

1. Increasing water demand and the inadequate capacity and status of the existing water supply network.
2. Increased water losses from the old and worn-out networks.
3. Absence of means to protect water from pollution (free wastewater discharge, industrial and agricultural pollutants...)
4. Insufficiency of water and wastewater government spending that is the scarcity of investments necessary to rehabilitate and upgrade the facilities to the required service and environmental levels.
5. Absence of an adequate administrative and executive structure to manage the increasing demand for potable water (and wastewater service) or apply new administration practices and modern water purification technologies.

### **To face this situation, the Lebanese Government intervened since 1992 through the following:**

- 1- Execution of urgent rehabilitation works for the existing water facilities, networks, pumping and treatment facilities, and addressing all existing or upcoming problems.
- 2- Completion, expansion and rehabilitation of the networks according to needs.
- 3- Upgrade and increase the water sources, reduce water leakages and thus increase supply rate.

In other wording, the sectorial action plan aims at completing the rehabilitation and expansion of potable water systems in all Lebanese regions, and increase the water resources to address the anticipated deficit through large-scale projects e.g the construction of 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 defined the water public properties (surface and ground) and entrusted the water service administration and management (potable water, irrigation, wastewater) to 4 public institutions (excluding the Litani river which remained under the management of the Litani River Authority to exploit its water for irrigation in South Lebanon and West Bekaa) into which it integrated all water departments, under the tutelage of the Ministry of Energy and Water.

In 2001, the boards of water institutions were appointed. In 2005, new regulatory and structural decrees were issued and put into effect in order to achieve many goals mainly: a) rehabilitation and improvement of the services of these institutions, b) expansion of their coverage area and c) maintain their administrative stability and financial situation.

In line with the Lebanese Government policy, the Private Public Participation (PPP), the Ministry of Energy and Water commissioned a French company to study the feasibility of the private sector involvement in the management of Beirut and Mount Lebanon Water Establishment. Concurrently, the CDR was charged with supervising the management of the other regional water establishments by private sector specialized firms.

### **Main achievements in the sector (1992-2017)**

At the end of the Lebanese civil war, the water projects implemented by the CDR aimed at fulfilling national objectives, including but not limited to the following:

- Rehabilitation program for water authorities (National Emergency Recovery Program – NERP – first year): at an estimated cost of US\$ 60 million, funded by the World Bank and the European Investment Bank. Its purpose was to rehabilitate the networks and potable water supply installations belonging to 19 potable water authorities (formerly).
- Rehabilitation and expansion of drinking water treatment plants, pumping and chlorination stations in several 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. This project begun in August 1996, at an estimated cost of around US\$ 54 million and was funded by the French-Lebanese Financial Protocol.
- Technical assistance to the Ministry of Energy and Water: A technical assistance program, amounting

to 30 million French Francs funded by the financial French-Lebanese Protocol, was completed. Under this program, the technical 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.

At the national level, and in parallel to these programs, the CDR focused on the development of water treatment plants across all Lebanese regions. These projects are detailed below by governorates, as follows:

#### **Greater Beirut area**

NERP: Several contracts have been awarded related to the rehabilitation and construction of potable water supply systems in the Greater Beirut area, for a total cost of US\$ 45 million, funded by Kuwait Fund for Arab Economic Development – KFAED. These contracts included the following works:

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

Expansion of Dbayeh drinking water treatment plant (First phase): the capacity of Dbayeh potable water treatment plant has been increased to 430000 m<sup>3</sup> per day. This project was funded by the Italian-Lebanese Protocol with a total budget 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 areas targeted by this project.

#### **Bekaa and Baalbeck Hermel Governorates:**

- Baalbeck-Nabi Sheet drinking water supply and Baalbeck wastewater network: the US\$ 32 million contract was funded by the World Bank. Under this project, the rehabilitation of potable water reservoirs, pumping stations and installation of distribution pipes were completed, digging and installation of wells in the project area, as well as creating a wastewater discharge network in Baalbeck.
- Baalbeck-Nabi Sheet House connections and complementary distribution lines: the value of this contract amounts to around US\$ 1.25 million, funded by the World Bank.
- Construction of wastewater and complementary drinking water distribution pipes in Baalbeck and Amshki: these works are considered as complementary to the above mentioned project for potable water distribution and wastewater pipeline network construction for Baalbeck-Nabi Sheet region. The works resulted also in the construction of pipeline network to distribute potable water and execute house connections and wastewater networks at a cost amounting to about US\$ 11.7 million funded by the World Bank.
- Construction of wastewater and complementary drinking water distribution pipes in 17 villages in the district of Baalbeck: these works complement the above mentioned project on potable water distribution and wastewater pipeline network construction for Baalbeck-Nabi Sheet region; consisting of a distribution network for potable water and household connections and wastewater networks at a cost amounting to around US\$ 12.2 million funded by the World bank.
- Yammouneh drinking water supply: the US\$ 11.9 contract is funded by the Islamic Development Bank (IDB). This project includes the construction of a dam to impound the water of the Yammouneh Spring, the installation of 76 km long water supply pipes, 246 kms long of water distribution pipes, and the construction of 23 new water reservoirs and two artesian wells.
- Ouyoun Orghosh drinking water supply: the US\$ 7.8 million contract is funded 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.
- Baalbek governorate villages (north-east part) water supply systems Lot 3 of Phase 1: this project included the drilling, and equipping of wells, water reservoirs, and transmission & distribution networks. The cost of the project was US\$ 13.4 million locally funded by virtue of Bekaa Development Decree number 12919, dated 27/08/1998.
- Installation of drinking water transmission lines to al-Bustan and al-Harf from Nassara and Harik springs in Hermel region: the contract value amounted to US\$ 2 million and was funded by the Kuwait Fund.
- Execution of irrigation channels in Hermel region: With a total budget of about US\$ 1 million funded by the Kuwait Fund for Economic and Social Development
- Al-Yammouneh infrastructure: This project included the construction of potable water supply and

wastewater networks, in addition to a wastewater treatment plant in al-Yammouneh. The works amounted to US\$ 3.96 million funded by the IDB.

- House connections for the regions covered by Yammouneh-Ouyoun Orghosh drinking water systems: In the context of this project, house connections were installed in all the villages that benefited from the Yammouneh-Ouyoun Orghosh projects, which were achieved as shown above; the cost of this project amounted to nearly US\$ 6.5 million through local funding (Bekaa Development Decree number 12919 dated 27/08/1998).
- Shmistar water supply: this project cost approximately US\$ 4.5 million, and provided potable water to Shmistar region and its surroundings.
- Execution of water supply networks and water reservoirs for some regions in Bekaa governorate: with a total budget of US\$ 1.1 million funded by the Arab Fund for Economic and Social Development.
- Execution of drinking water network in Harbata in In the district of Baalback: with a total budget of US\$ 1.4 million locally funded.
- Supply of drinking water to villages in In the district of Baalback (north east part) – lots 1 and 2: this project was split into three sections to supply potable water to the regions extending from Rassem Al Hadeth – Arsel to Kaa region in North Bekaa, and included construction of reservoirs and distribution networks. The cost of the project reached US\$ 13 million with local funding.
- Execution of distribution lines and complementary drinking networks and house connections in Baalbeck, Khodr, Nabi Sheet and Khraybe: with a total budget of US\$ 4.9 million funded by the International Bank for Reconstruction and Development (IBRD).
- Operation and maintenance of water and sewage systems in Baalbeck-Nabi Sheet region: with a total budget of US\$ 9.5 million funded by the International Bank for Reconstruction and Development (IBRD) and the Lebanese Government for the period 2005-2016, and the Lebanese Government until 2017.
- Execution of complementary house connections in Yammouneh-Ouyoun Orghosh regions: with a total budget of US\$ 5.6 million locally funded (Bekaa Developmental Decree No. 12919 dated 27/08/1998).
- Rehabilitation of water supply systems in West Bekaa and villages in east Zahle (Lot 1): funded by the World Bank with a total budget of US\$ 14.2 million and included the construction of pumping and disinfection stations, water reservoirs, transmission and distribution networks and house connections in many villages of the districts of West Bekaa and Zahlé.
- Execution of complementary water works on the Rashaya –West Bekaa roads – Part II – Section I – Group I: Works included the installation of potable water transmission and distribution lines on roads in the districts of Rashaya and West Bekaa, namely in Dahr el Ahmar, Kfarqouq-Rashaya, Rashaya-Masnaa, Jib Janin-Kefraya, with a total budget of US\$ 3.7 million locally funded.
- Execution of complementary water works on the Rashaya –West Bekaa roads – Part II – Section I – Group II: Works included the installation of potable water transmission and distribution lines on roads in Rashaya and West Bekaa Districts, namely in Kherbet Rouha-Ain Arab- Bekka- Deir el Ashayer-Rashaya-Ain Ata, Jib Janin-Kamed el Loz-Falouj, with a total budget of US\$ 2.9 million locally funded.
- Completion of the rehabilitation of water systems in the eastern villages of the district of Zahle – Section II – Phase II – Groups I, II and III: works included the construction of local reservoirs and installation of drinking water distribution networks in the following villages and towns: Aiha, Ain Harsha, Bakka, Deir Al Ashayer, Kawkaba, Majdel Balhiss, Rashaya, Tannoura, Massa, Riit, Koussaya, Kfarzabad, Faour, Majdel Anjar, Souairi, Manara, Ain Kfarzabad, with a local funding of US\$ 25,6 million (Decrees 11064 and 10633).

#### **Akkar Governorate**

- Drinking water supply network for Kobayat Water Authority and Akkar Wastewater channels network: with a total budget of US\$ 14.8 million funded by the European Investment Bank; it included the execution works of wells and reservoirs and pumping stations as well as drinking water transmission lines.
- Drinking water supply network for some villages in Akkar supplied by wells: with a total budget of US\$ 4 million funded by a grant from the Kingdom of Saudi Arabia.
- Akroum and Kfartoun drinking water supply: with a total budget of US\$ 6.6 million funded by the Saudi Fund for Development. It included the catchment of Sabeh spring and the execution of wells, reservoirs, pumping stations and potable water transmission lines.
- Installation of drinking water supply transmission pipelines for Beit Mallat and surrounding villages in Akkar: the project included the construction of water reservoirs and water towers, rehabilitation of water reservoirs, potable water transmission lines, boreholes and pumping stations. The value of the

contract reached approximately US\$ 19.5 million funded by the Islamic Development Bank and OPEC for International Development Fund.

- Execution of works for Ain Yacoub drinking water supply: with a total budget of US\$ 5.9 million funded by the Saudi Fund for Development; it included the construction of reservoirs, a pumping station and transmission pipelines.
- Barghash-Hrar, Kaf al Tineh, Qobiit region - Akkar water supply project: with a total budget of US\$5.8 million contract funded by the Saudi Fund for Development. This project included the execution of the Kaf al Tineh spring catchment, construction of local reservoirs and a regional reservoir, pumping stations and transmission lines.
- Supply drinking water to Akkar al-Atika region: this project aimed at supplying Akkar al-Atika region and its surroundings with potable water. The works included springs catchment, construction of local and regional reservoirs, pumping stations and transmission lines, with a total budget of US\$ 7.6 million locally funded.
- Completion of Barghash-Hrar, Kaf al Tineh, Qobiit region - Akkar water supply project: with a total budget of US\$7.6 million funded by the Saudi Fund for Development. This project included water works to complement the existing network in Barghash, Hrar, Kaf al Tineh and Qobiit.

#### North Governorate

- Installation of drinking water supply networks for the (ex) Tripoli Water Authority and Tripoli wastewater networks: With a total budget of US\$ 34 million funded 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 service.
- Renovation of water networks and house connections in Tripoli: with a total budget of 7.4 million euros funded by the AFD.
- Expansion of Bahsas water treatment plant: this project increased the capacity of Bahsas water treatment plant from 40000m<sup>3</sup> per day to 70000m<sup>3</sup> per day. The total budget of the project was US\$ 4 million funded by the AFD.
- Minieh drinking water supply: the project aimed at supplying Minieh and surrounding villages with potable water. The total budget of the project was US\$ 1.8 million funded by the Saudi Fund for Development.
- Equipping of two boreholes in Deir Aamar and Nabi Yousha in the north: with a total budget of US\$ 862.000 locally funded.
- Execution of water works in various regions of Zgharta: with a total budget of US\$ 1.7 million, funded by the Kuwait Fund for Arab Economic Development.
- Installation of drinking water supply networks for the (ex) Batroun Water Authority and some wastewater networks: With a total budget of US\$ 20.5 million funded by the European Investment Bank.
- Equipping Abi Yaghi borehole in Batroun: with a total budget of US\$860 thousand locally funded.
- Execution of water supply pipe lines for water treatment station in Kousba, Koura district: with a total budget of US\$387 thousand locally funded.
- Tripoli Water Department Management contract: This contract was considered to be the result of the Government's efforts to restructure the water sector and to involve the private sector in its operation. The Tripoli Water department Management contract was awarded to a French firm reached 8.9 million euro funded by the French Development Agency. The management contractor was operating and managing Tripoli Water department facilities, as well the billing and collection of water fees, in addition to operating and managing the human and its financial resources. Furthermore, the management contractor supervised the rehabilitation of Tripoli water supply networks including increasing the capacity of Bahsas water treatment plant from 40000 m<sup>3</sup> to 70000m<sup>3</sup> per day.
- Development contract and improving performance and enlarging utilization client management program X7 for North Lebanon Water Authority: this contract was also considered as part of the Government's efforts to reorganize and redevelop the water sector in Lebanon, with a total budget of about 400,000 Euros funded by the AFD.
- Secondary and tertiary networks in Beddaoui: with a total budget of US\$3.6 million financed by a grant from the Kuwait Fund.
- Drinking water and protection walls in Becharre district: with a budget of US\$ 2.7 million financed by a grant from the Kuwait Fund.
- Construction of Brissa Hill Lake & dam: the project aimed to supply drinking and irrigation water to villages in the upper parts of Minyeh-Danniyeh district. The project was funded by the Saudi Fund for

Development amounting to US\$ 14.25 million.

- Execution of drinking water supply pipes between Fii' and Kousba in Koura district: the contract amounted to US\$ 3 million financed by the Kuwait Fund.
- Completion of water supply projects in Batroun district: the project amounted to US\$ 5.7 million funded by the Kuwait Fund for Arab Economic Development.
- Construction of drinking water distribution networks and wastewater collection networks in Ehden-Zgharta: The project included the installation of drinking water networks and sewer networks in the district of Zgharta, with a total budget of US\$ 14,5 million, financed by the Abu Dhabi Development Fund and the CDR's budget (Recovery Program).
- Rehabilitation and expansion of water systems in Chekka and Anfeh: This project included the supply of drinking water to Chekka and Anfeh until Hreishah, by digging wells in Jarada, along with the rehabilitation and expansion of water networks and house connections and construction of reservoirs. The cost of this project amounted to US\$ 9,6 million, funded by the Arab Fund for Economic and Social Development.
- Installation of drinking water networks and pumping stations and wells in the districts of Koura and Batroun, namely in the following villages and towns: Edde, Dhour Edde, Basbina, Aabrine, Hamat, Kfarhalda, Darbechtar, Majdel, Kaftoun, Dhour Al Hawa, and Ram. The works cost nearly US\$ 7 million, funded by the French Development Agency and the CDR's budget (Recovery Program).
- Completion of water networks projects in Fouar within the jurisdiction of the North Lebanon Water Authority: The works amounted US\$ 4,4 funded by a grant from the Arab Fund.

#### Mount Lebanon Governorate

- Drinking water transmission to Keserwan coastal region from al-Madik spring: with a total budget of US\$ 76 million funded by the Japanese Bank for International Cooperation (JBIC). It included the construction of a Dam to impound the water of Madik Spring and installation of main water pipe lines (through a tunnel) that transmitted the water to Keserwan coastal region; and the construction of main water reservoirs and potable water distribution networks servicing Keserwan coastal region.
- Rehabilitation of drinking water wastewater networks in Chouf and Metn districts: With a total budget of US\$ 25 million funded by the World Bank, the project included the construction of 22 water reservoirs, installation of transmission pipelines and potable water distribution networks, in addition to wastewater networks.
- Rehabilitation of infrastructure in displaced villages: this included the rehabilitation of the existing potable water networks and the installation of new networks in the displaced villages of Baabda, Aley and Chouf districts. The US\$ 7.15 million project was funded by the Saudi Fund for Development.
- Transmission of Ra'ayan spring water to Aley main water reservoir: the purpose of this project was to transmit around 12000m3 of water daily from Ra'ayan spring to Aley main water reservoir. The contract amounted to US\$ 15 million funded by the Kuwait Fund for Arab Economic Development.
- Execution of miscellaneous water works in Barouk region: with a total budget of US\$ 5.25 million funded by the Kuwait Fund for Arab Economic Development.
- Rehabilitation of wells and existing facilities for (ex) Ain el Delbe Water Authority, with a total budget of US\$ 4.15 million funded by the Kuwait Fund for Arab Economic Development.
- Execution of water transmission line from Nahr Ibrahim to Jbeil water treatment plant: with an approximate budget of US\$ 2 million locally funded.
- Qattine-Azar water supply project: the purpose of this project was to use the water of Qattine-Azar ground water to supply potable water to the upper areas of Metn, with a total budget of US\$ 4.25 million funded by the Kuwait Fund for Arab Economic Development.
- Execution of a transmission pipeline from Nabee El Assal to Bhaness reservoirs – Phase 1: with an approximate budget of US\$ 9.6 million funded by the Kuwait Fund For Arab Economic Development.
- Well rehabilitation and construction of new water facilities for Ain El Delbe Water Authority – with an approximate budget of US\$ 4 million funded by the Kuwait Fund for Arab Economic Development.
- Construction of Qaysamani Dam in the district of Baabda: to supply drinking water to a number of towns in the district of Baabda. The dam has a capacity of 1 million cubic meter, with a daily water supply of nearly 12,000 cubic meter. The project cost US\$ 21 million funded by the Kuwait Fund for Arab and Economic Development and the CDR budget.

### South and Nabatieh Governorates

- Rehabilitation, expansion and equipping of Taybeh drinking water treatment plant (phases I and II): the total budget of the executed works was around US\$28.40 million split into two phases: the first phase at around US\$21.00 million out of which US\$12 million funded by the Islamic Bank for Development and the remainder 9 million locally funded. . this phase consisted of constructing a water treatment in Taybeh is capable of producing 25000m3 of potable water per day and supply the potable water systems operated by the Jabal Amel Water department. The second phase cost around US\$7.40 million, and aimed at rehabilitating existing facilities, providing electric power, and performing operation and maintenance activities through local funding.
- Drilling and equipping of water wells in various regions damaged by the war in 1996: with a total budget of US\$ 2.5 million funded by the Arab Fund (AFESD).
- Rehabilitation and development of urban Sour drinking water supply networks: with a total budget of US\$ 20.5 million funded by AFESD.
- Rehabilitation and development of Sour rural area drinking water supply network: with a total budget of US\$ 27 million funded by AFESD.
- Execution of drinking water pumping stations in Sour: with a total budget of US\$ 1 million locally funded.
- Drinking water supply network for Saida Water department: the value of this contract was US\$ 6.4 million funded by the AFESD.
- Rehabilitation of Jezzine drinking water supply system: with a total budget of US\$ 1.25 million funded by the French Agency for Development.
- Execution of drinking water transmission lines from Nabeh al-Taseh to Nabatieh region: This project aimed at increasing the capacity of potable water service in this region, with an approximate budget of US\$ 7.5 million funded by the French Agency (AFD).
- Drilling and equipping 4 wells, reservoirs and drinking water networks in Nabatieh region: with an approximate budget of US\$ 2 million funded by the European Union.
- Execution of drinking water networks in Hebarieh region in Hasbaya: with an approximate budget of US\$ 14.8 million funded by the French Agency AFD and the CDR budget.
- Execution of drinking water works for Jabal Amel water department in Marjeyoun and Bint Jbeil with a total budget of US\$ 12.15 million funded by the Islamic Bank for Development.
- Drilling water wells and installation of drinking water networks in Nabatieh region: with a total budget of US\$ 1 million funded by the European Union.
- Drilling of artesian well in Kfarhamam in Hasbaya: with a total budget of US\$270 thousand funded by a European Union grant.
- Drilling and equipping water wells in Douair and Klaileh: with an approximate budget of US\$ 1.2 million funded by the Kuwait Fund.
- Rehabilitation of water supply systems in Nabatieh district: The project included the construction of ground water reservoirs, water towers and 6km long transmission lines, 40 km long distribution lines in the villages of Kfarrouman, Harouf, Arabsalim, Haboush and Ansar, with a total budget of US\$4,9 million funded by the Abu Dhabi Fund.
- Drilling of two water wells in Bint Jbeil: The project included the drilling of two artesian wells in Bint Jbeil to increase the potable water supply capacity, with an approximate budget of US\$ 1 million funded by the European Union.
- Execution of water and wastewater networks in the Districts of Sour and Nabatieh: The project included the installation of potable water and wastewater networks in some villages in the Districts of Sour and Nabatieh, with a total budget of US\$ 4.8 million funded and supervised by the Kuwait Fund for Arab Economic Development (KFAED).
- Execution of water works for Jabal Amel Water department in the Districts of Marjeyoun and Hasbaya: the project aimed to install transmission networks, main and secondary water distribution lines, and to equip the pumping stations in the following regions: Bint Jbeil, Marj el Khaoukh and Chebaa, with an approximate budget of US\$ 55,9 million funded by the Islamic Development Bank (IDB) and a treasury loan by virtue of Decree No. 6841 dated 17/11/2011 and Decree No. 7477 dated 06/02/2012 and the CDR's budget (Horizon 2000).
- Execution of works for the replacement of the drinking water supply networks and house connections in Chebaa, Hebarieh, Kafarchouba, Ain Qania, Chwaya, Kfarhamam, Kfayr and Khalwat Kfayr – Section II

with an approximate budget of US\$ 13.1 million funded locally (Decree No. 6841/2011).

- Execution of complementary water networks in Jabal Amel – Bint Jbeil District: This project complemented the Jabal Amel potable water project, it included the installation of main and secondary water networks in the villages of the District of Bint Jbeil, amounted US\$ 22 million funded by a Treasury loan by virtue of Council of Ministers Decision No.99 dated 22/05/2014 and Decrees 12068, 3168, 2168, and 4572.
- Complementary works for the water systems project in Hebarieh – Hasbaya: the project is intended to install potable water supply networks and transmission lines to complement the potable water systems in Hebarieh in the District of Hasbaya, with a total budget of US\$ 7.2 million funded by a Treasury loan by virtue of Council of Ministers Decision No.99 dated 22/05/2014.

### Work progress in major ongoing projects

#### North and Akkar Governorates:

- Water supply to remote villages supplied from the reservoirs of Hrar and Kabiit in Akkar: This project includes the construction of water reservoirs, installation of water transmission pipes, distribution networks, and pumping stations servicing around 25 villages. The project cost is US\$ 20.4 million, and is funded by the Arab Fund for Economic and Social Development. Around 80% of the work has been completed to date.
- Completion of water systems in Minnieh-Danniyeh (Part I): this project aims at complementing the water systems works that the CDR executed between 1998 and 2002. Parts of this project are still unexploited. These works are estimated at US\$ 10 million, funded by the Arab Fund for Economic and Social Development and the CDR budget. Around 65% of the work has been completed to date.
- Rehabilitation and renovation of water systems in Becharre: This project includes the supply of potable water from Qadisha Spring to Becharre and surroundings, the expansion of water networks and house connections and the construction of water reservoirs. The cost of this project is estimated at US\$ 11,9 million, and is funded by the Arab Fund for Economic and Social Development and the CDR budget. Around 85% of the work has been completed to date.
- Expansion of the water and wastewater network in Midan- Ehden: The project aims to install complementary potable water and wastewater networks in Midan - Ehden to expand the current network, with a total budget of US\$ 1.3 million, locally funded. Around 95% of the work has been completed to date.
- Execution of Qalamoun and Ras Masqa water project on the outskirts of Chekka and Anfeh and continuation of projects in Koura: The project includes the extension of distribution and transmission lines within the vicinity of the project. The value of the works is estimated at US\$ 6.2 million, funded by the Arab Fund for Economic and Social Development and the CDR's budget (Horizon 2000). Around 60% of the work has been completed to date.
- Project to supply drinking water and waste water to Akkar coastal area – Lot I: the project includes the construction of reservoirs, installation of potable water transmission pipes, and installation of distribution networks and pumping stations servicing all the villages of the Akkar coastal area. The works are estimated at nearly US\$ 39.6 million, funded by the Islamic Bank for Development. Around 5% of the project has been completed to date.

#### Mount Lebanon

- Execution of complementary works for the rehabilitation of water wells and construction of new facilities in Ain el Delb Water Authority (formerly): the project aims to rehabilitate wells within the range of Ain el Delb Water Authority (formerly) and construct potable water treatment plant in Daishounieh, with an approximate cost of US\$ 3 million, funded by the Kuwait Fund for Arab Economic Development. 95% of the work has been completed to date.
- Upgrading the drinking water systems in Jbeil district: this project is the phase 1 of the planned project. This phase is estimated at EUR 39 million (including wastewater systems). The project includes the following: Construction of 15 new water reservoirs, rehabilitation of 5 water reservoirs, installation of 61 km of transmission lines, installation of 39 km of distribution lines, drilling of 2 new wells, construction of 2 pumping stations, and construction of 10,8 km of new roads that lead to the locations of water facilities. The project is funded by the Lebanese-Italian Financial Protocol. 30% of the work has been completed to date.
- Construction of Manzoul hill lake in Metn district: The purpose of the Manzoul lake & Dam in upper Metn,

is to increase the supply of potable water in Mtein, Aintourah, and Zaarour, with a 400,000 cubic meter storage capacity. The cost of this project is estimated at US\$ 15 million funded by the Kuwait Fund for Arab Economic Development and the CDR budget (Horizon 2000 plan). 5% of the work has been completed to date.

- Greater Beirut water supply project (Awali- Beirut project) Phase I/conveyor and transmission lines: the purpose of this project is to supply 250,000 m3 of water daily to Greater Beirut. The project includes the construction of a 24 km long conveyor and a water treatment plant, two transmission lines of a diameter of 1400 mm each and 9 km long to supply 3 regional water reservoirs in Baabda district and distribution lines. The CDR is responsible for the execution and supervision of the works of the conveyor, transmission lines and regional water reservoirs at an estimated cost of US\$ 200 million, funded by the World Bank. The BML water establishment is responsible for the execution of local water reservoirs, treatment plant, and distribution lines; estimated at US \$ 140 million. Around 50% of the work has been completed to date.
- Diversion and Rehabilitation of the water line between Nabee El Safa and Beiteddine (Mir Bashir Aqueduct): This project includes works to divert and rehabilitate the water line between Nabee El Safa and Beiteddine including the Mir Bashir Aqueduct, with an approximate cost of US\$ 3.8 million locally funded (Council of Ministers Decision #No. 99 dated 22/05/2014). 60% of the work has been completed to date.

#### **Bekaa and Baalbeck-Hermel Governorates**

- Execution of complementary water and wastewater networks in the city of Baalbeck and the neighboring villages – Group I: Works include the installation of complementary potable water supply networks and wastewater networks in the city of Baalbeck and some neighboring villages, with a total budget of US\$ 5.9 million locally funded. Around 45% of the work has been completed so far.
- Execution of various water works in Bkifa - Beit Lahia - Aiha - Haoush: This project includes the installation of potable water transmission and supply pipes. The cost of this project is estimated at US \$ 2.5 million and is locally funded (Council of Ministers Decision No.99 dated 22/05/2014). Around 80% of the work has been completed so far.
- Supply of drinking water to Hermel district: This project includes the installation of potable water transmission pipes, construction of water reservoirs and installation of distribution networks and pumping stations. The cost of this project is estimated at around US \$ 19.5 million funded by Treasury Loan No. 99 of 22/05/2014. 5% of the work has been completed to date.
- Rehabilitation and improvement of drinking water systems in Zahle and surroundings: The project consists of three parts: Part I includes potable water networks in Haoush el Omara and Ksara for an amount of US\$ 5 million funded and implemented by USAID. Part II includes the potable water networks in the city of Zahle which are fed from the potable water treatment plant; the cost of this part is estimated at US\$ 5 million, and is implemented by the Ministry of Energy and Water. Part III includes potable water systems in East Zahle, Dhour Zahle, Touaite, Mouaalaka, Karak, Madina Sinaiya, Qaa El Reem and Hezerta. Part III is estimated at US\$ 16 million and is funded by the Kuwait Fund for Arab Economic Development and the CDR (Horizon 2000). The project was split into a committed part (US\$ 10 million) and an optional part that depends on the related expropriations (US\$ 6 million). The contract related to the committed part was signed. 5% of the works has been completed to date.

#### **Major contracts signed in 2017**

- Rehabilitation and improvement of drinking water systems in Zahle and surroundings: funded by the Kuwait Fund for Arab Economic Development and the CDR budget (Horizon 2000), at nearly US\$ 10,7 million.
- Annex to the contract related to water supply in remote villages from the reservoirs of Hrar and Kabiit, funded by the Arab Fund for Economic and Social Development and the CDR budget (Horizon 2000), at nearly US\$ 930,000.
- Project to supply drinking water and waste water to Akkar coastal area– Lot I: funded by the Islamic Bank for Development and the CDR budget (Horizon 2000), at nearly US\$ 39,6 million.
- Annex to the contract related to the completion of water systems in Hbarieh- Hasbaya, funded by the CDR budget (Horizon 2000), estimated at nearly US\$ 4,3 million.
- Annex to the contract related to the execution of wastewater and potable water works in some towns in the district of Baalback, locally funded with an value of US\$ 5,4 million.

- Supply of drinking water to the villages of Hermel, locally funded by Treasury Loan No. 99 of 22/05/2014 and estimated at nearly US\$ 13,9 million.
- Annex to the contract related to the construction of Qaysamani Dam along with the design and construction of its annexed treatment plant, estimated at nearly US\$ 380,000, funded by the Kuwait Fund for Arab and Economic Development and the CDR budget (Horizon 2000).
- Annex to the contract related to the Greater Beirut water supply project (Awali Water Transmission) Phase I/conveyor and transmission lines, funded by the World Bank and the CDR budget (Horizon 2000), with a value of US\$ 20, 7 million.
- Annex to the contract related to the rehabilitation of potable water systems in West Bekaa, Rashaya, and some eastern villages of the district of Zahle (Group 2), funded by the Lebanese Government, with a value of nearly US\$1.3 million.

### Major projects under preparation (2018-2020)

#### Greater Beirut

- Expansion of Dbayeh drinking water treatment plant: This project aims at increasing water production in Dbayeh water treatment plant. The costs are estimated at US\$5.1 million, and are expected to be funded by the Italian Protocol. The action plan of the project is being currently re-considered with Beirut and Mount Lebanon Water Establishment and works are expected to commence by the end of 2018.
- Greater Beirut water supply augmentation project (Bisri Dam) - Phase II: the purpose of this project is to supply 500,000 m3 of water daily to Greater Beirut. The project includes the construction of a dam & lake on Bisri River bed, the construction of a hydroelectric power plant, the installations of wastewater systems and land acquisitions, estimated at US\$617 million. The funding is expected to be secured from the Islamic Development Bank, the World Bank and the Lebanese Government. Works are expected to start by the end of 2018.

#### Bekaa and Baalbeck-Hermel Governorates

- Rehabilitation of water systems in West Bekaa and villages in East Zahle district: the project is funded by a US\$ 24.9 million grant from the State of Kuwait. This project is complementary to the former works carried out by the Kuwait Fund (installation of potable water distribution networks in Ain Zebdeh, Tel Dnoub, Kefraya, Mansoura, Dakoueh, Salmiya, Tel el Zaazee and Sultan Yacoub al-Tahta in addition to drilling of five wells out of seven in Shamseen area). The project includes the drilling of two wells and equipping of the seven wells, building pumping stations in Shamseen, installation of pumping lines from these two stations to two central reservoirs on Mount Anjar and Mount Terbol; construction of the two mentioned reservoirs in addition to a reservoir in Majdel Anjar and another in Sultan Yacoub al-Tahta and two local reservoirs in Jeb Jenin and Kamed el Laouz, installation of transmission line from these central reservoirs to local reservoirs in West Bekaa and East of Zahle villages, construction of transmission lines from the central reservoir in Baaloul to Jeb Jenin and Kamed el Laouz reservoirs and the distribution networks in both towns. Works are expected to start in the first half of 2018.
- Installation of a transmission line from Mount Arab reservoir to the southern villages of the district of Rashaya: This project includes the installation of potable water pipelines. The cost of this project is estimated at US\$ 6.5 million and is locally funded (Council of Ministers Decision No.99 dated 22/05/2014). Works are expected to start in the second half of 2018.
- Augmentation of water sources in Baalbeck-Hermel governorate: The project is intended to augment the water sources in Baalbeck-Hermel governorate and will be funded by a grant from the Kuwait Fund for Arab Economic Development (KFAED) within the framework of the Contribution Agreement to the Lebanon Crisis Response Plan (LCRP), as part of the third grant allocated by KFAED to contribute to the Syrian crisis response plans in the host countries, of a value of US\$ 1.5 million. Execution is expected to start in the second half of 2018.
- Rehabilitation of water treatment station in Fallawi: to increase the production of potable water alimenter the city of Baalbeck, through a grant from the Kuwait Fund for Arab Economic Development (KFAED) within the framework of the grant allocated for the villages hosting Syrian displaced, of a value of US\$ 1 million. Execution is expected to start in the second half of 2018.
- Rehabilitation and upgrading of drinking water supply systems in Wadi Dolom – Kab Elias in Zahle – Bekaa: the funding is approved within the framework of the Contribution Agreement to the Lebanon Crisis Response Plan (LCRP), as part of the third grant allocated by KFAED to contribute to the Syrian crisis response plans in the host countries, of a value of US\$ 2.5 million. Execution is expected to start in the first half of 2018.

### North and Akkar Governorates

- Project to supply drinking water to Akkar coastal area – Lot II: the project includes the construction of reservoirs, installation of potable water transmission pipes, and installation of distribution networks and pumping stations servicing some of the villages of the Akkar Plain, targeted by the first part of the project. The costs are estimated at US\$ 14,5 million, funded by the Islamic Bank for Development. Works are expected to start in the second half of 2019.
- Completion of drinking water projects in Akkar: works are estimated at around US\$ 20 million. The funds are approved within the framework of the Reconstruction and Development Plan of the Lebanese Republic – Paris III, awaiting the signature of the funding agreement with the Saudi Fund for Development.
- Renovation of water systems in Minnieh-Danniyeh: this project aims at complementing the water systems works that the Ministry of Energy and Water had executed between 1998 and 2002. 7 parts of this project are still unexploited, awaiting their completion. After the Italian Government expressed willingness to finance these works estimated at US\$ 7.5 million the CDR started the preparation of related studies. Works are expected to start in the second half of 2018.
- Drilling & equipping of water wells in Nabi Yousha, Deir Nbouh and Ain el Tineh: through a grant from KFAED within the framework of the Contribution Agreement to the Lebanon Crisis Response Plan (LCRP), as part of the third grant allocated by KFAED to contribute to the Syrian crisis response plans in host countries. Works are expected to start in the second half of 2018.
- Upgrading of drinking water supply systems in Akkar governorate– the funding is approved within the framework of the Contribution Agreement to the Lebanon Crisis Response Plan (LCRP), as part of the third grant allocated by KFAED to contribute to the Syrian crisis response plans in the host countries. This project includes the drilling and equipping of five water wells and is divided into two sections. The first section includes two water wells in Kherbet Daoud and El Bireh, and the second section includes three wells in Fnaideq, Beit Mlat and Tekrit. The project is estimated at US\$ 4.5 million. Execution is expected to start in the second half of 2018.
- Drinking and Irrigation Water Supply Project in Bcharre District: this project is intended to upgrade the potable water systems in the villages and towns of Bcharre District in order to improve livelihoods and protect public health. The project covers all the villages and towns of Bcharre District: Bane, Beit Monzer, Barhalyoun, Blaouza, Briset, Diman, Hasroun, Mazraat Assaf, Mazraat BaniSaab, Moghr al Ahwal, Qaniour, Tourza, Hadchit, Bekaa Kafra, Bqarqasha, Kanate and Hadath el Jebbeh. It is worth noting that the potable water supply system for the towns of Bcharre and Al Arz is being currently executed with funding from the Arab Fund for Economic and Social Development. The project includes the execution and equipping of 11 water wells, and the construction of 13 water pumps and 18 water storage tanks, with capacities ranging between 100 and 200 cubic meters, as well as the construction of water transmission and distribution lines (200 km long). The Project also includes the construction of a reservoir for surface water in Ouadi Ech Chech with a capacity of about 200,000 cubic meters for irrigation. The cost of the project is estimated at US\$ 37 million, and will be funded by the Kuwait Fund for Arab Economic Development (KFAED). Works are expected to start in the second first half of 2020.

### Mount Lebanon Governorate

- The catchment of the Barouk spring in Chouf District: this project aims at increasing the potable water supply in Chouf and Aley regions. The cost of the project is estimated at US\$ 1 million and is funded by the Arab Fund for Economic and Social Development. Works are expected to start during 2018.
- Water supply augmentation projects in Iqlim el Kharroub in Chouf district – Mount Lebanon governorate: the funding is approved within the framework of the Grant Contribution Agreement to the Lebanon Crisis Response Plan (LCRP), as part of the third grant allocated by KFAED to contribute to the Syrian crisis response plans in the hosts countries, of a value of US\$ 2.7 million. Execution is expected to start in the first half of 2018.
- Completion of water projects in Chouf and Aley districts: funded by the Saudi Development Fund. The project is intended to complete the potable water systems in the Chouf and Aley districts in Mount Lebanon governorate, with a value of US\$ 15 million. Execution is expected to start in the second half of 2018.

**South Lebanon and Nabatieh Governorates**

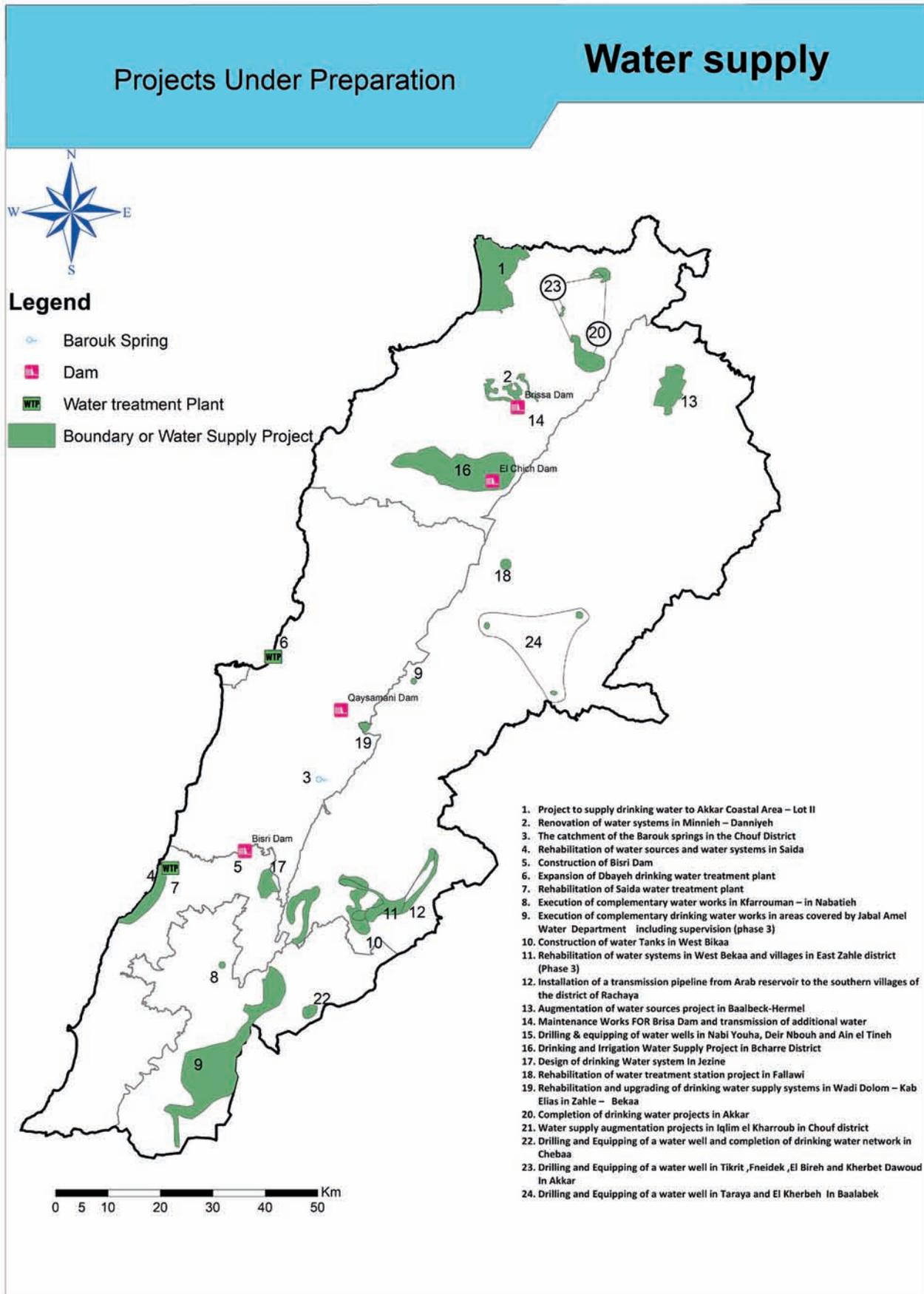
- Execution of complementary water works within the area of the South of Lebanon Water Establishment: the purpose of the project is to execute works to install complementary potable water supply network and transmission lines within the area covered by the South of Lebanon Water Establishment. The cost of this project is estimated at around US\$ 6 million and will be funded by the Arab Fund for Economic and Social Development and the CDR budget. Works are expected to start in the second half of 2018.
- Execution of complementary drinking water works in the area covered by Jabal Amel Water Department (Phase 3): The project includes the installation of complementary potable water supply networks and transmission lines within the framework of the potable water project at the Jabal Amel water department, with a total budget of US\$ 73 million, funded by the CDR (Horizon 2000 plan) and by the Islamic Bank. Works are expected to start in the second half of 2018.
- Execution of complementary water works in Kfarrouman in Nabatieh – The project includes the execution of complementary water networks in Kfarrouman in Nabatieh, with an approximate budget of US\$ 2.5 million, funded by the Abu Dhabi Fund. Works are expected to start in the second half of 2018.
- Drilling & equipping of a water well and completion of drinking water network in Chebaa: This US\$ 2.7 million project falls under the Lebanon Host Communities Support Programme (LHSP) (Grant # 12135) Execution is expected to start in the first half of 2018.

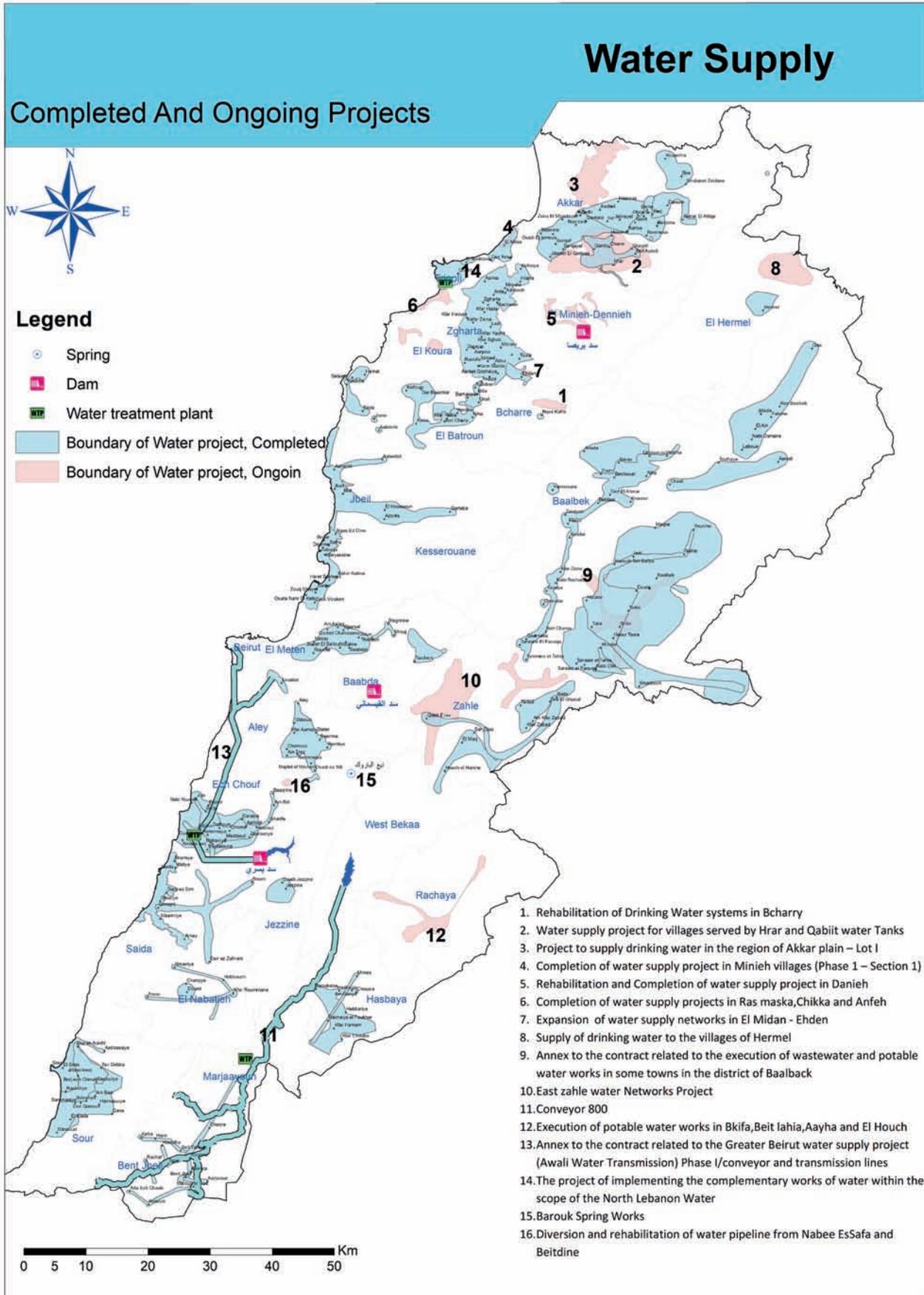
**Major contracts signed during 2017**

| Project name  | Contract amount (US\$) | Funded by   | Start Date     | Expected delivery date |
|---|------------------------|---|----------------|------------------------|
| Rehabilitation and improvement of drinking water systems in Zahle and surroundings  | 10,726,663,89          | Kuwait Fund for Arab Economic Development and CDR budget (Horizon 2000)     | May 2017       | June 2019              |
| Annex to the contract related to water and wastewater to Akkar Coastal Area – lot I   | 934,602,06             | Arab Fund for Economic and Social Development and CDR budget (Horizon 2000) | September 2017 | May 2018               |
| Project to supply drinking water in the region of Akkar plain – Lot I   | 39,597,824,91          | Islamic Bank for Development and CDR budget (Horizon 2000)                  | August 2017    | September 2019         |
| Annex to the contract related to the completion of water systems in Hbarieh- Hasbaya  | 4,354,970,35           | CDR budget (Horizon 2000)   | January 2017   | December 2017          |
| Annex to the contract related to the execution of wastewater and potable water works in some towns in the district of Baalback                                    | 5,454,769,15           | CDR budget (Horizon 2000)   | August 2017    | March 2019             |
| Supply of drinking water to the villages of Hermel  | 13, 896,143,80         | Lebanese Government   | June 2017      | May 2019               |
| Annex to the contract related to the construction of Qaysamani Dam along with the design and construction of its annexed treatment plant                          | 381,311,50             | Kuwait Fund for Arab Economic Development and CDR budget (Horizon 2000)     | June 2017      | December 2017          |
| Annex to the contract related to the Greater Beirut water supply project (Awali Water Transmission) Phase I/conveyor and transmission lines                       | 20,742,370,28          | World Bank and CDR budget (Horizon 2000)                                    | July 2017      | August 2019            |
| Annex to the contract related to the rehabilitation of potable water systems in West Bekaa, Rashaya, and some eastern villages of the district of Zahle (Group 2) | 1,318,530,86           | Lebanese Government   | July 2017      | December 2017          |

**Major projects under preparation (2018-2020)**

| Project name  | Contract amount (US\$) | Funded by                                     | Start Date     | Expected delivery date |
|---|------------------------|---|----------------|------------------------|
| Greater Beirut water supply augmentation project –Phase II (Construction of Bisri Dam & Lake)                                   | 617,000,000            | World Bank/Islamic Bank/Lebanese Government   | December 2018  | December 2023          |
| Project to supply drinking water to Akkar Coastal Area – Lot II   | 14,513,000             | Islamic Bank for Development                  | July 2019      | July 2022              |
| Completion of drinking water projects in Akkar  | 20,000,000             | Saudi Fund for Development                    | December 2018  | December 2020          |
| Renovation of water systems in Minnieh - Danniye  | 7,425,000              | Grant from the Italian Government             | May 2018       | May 2019               |
| The catchment of the Barouk springs in the Chouf District   | 1,000,000              | Arab Fund for Economic and Social Development | July 2018      | July 2019              |
| Execution of complementary drinking water works in areas covered by Jabal Amel Water Department including supervision (phase 3) | 73,000,000             | CDR's Budget (Horizon 2000) & Islamic Bank    | November 2018  | November 2023          |
| Expansion of Dbayeh drinking water treatment plant  | 5,100,000              | Italian Protocol CDR's budget (Horizon 2000)  | December 2018  | December 2019          |
| Installation of a transmission pipeline from Arab reservoir to the southern villages of the district of Rakaia                  | 6,500,000              | Treasury loan No.99 of 22/05/2014             | August 2018    | August 2019            |
| Execution of complementary water works within the area of the South of Lebanon Water Establishment                              | 5,880,000              | AFESD & CDR's budget (Horizon 2000)           | April 2018     | April 2019             |
| Execution of complementary water works in Kfarrouman – in Nabatieh  | 2,450,000              | Abu Dhabi Fund                                | June 2018      | June 2019              |
| Rehabilitation of water systems in West Bekaa and villages in East Zahle district   | 24,878,737             | Grant from Kuwait Government                  | May 2018       | May 2019               |
| Augmentation of water sources project in Baalbeck-Hermel governorate  | 1,500,000              | KFAED   | September 2018 | September 2019         |
| Rehabilitation of water treatment station project in Fallawi  | 1,000,000              | KFAED   | June 2018      | June 2019              |
| Rehabilitation and upgrading of drinking water supply systems in Wadi Dolom – Kab Elias in Zahle – Bekaa                        | 2,500,000              | KFAED   | June 2018      | June 2019              |
| Drilling & equipping of water wells in Nabi Youha, Deir Nbouh and Ain el Tineh  | 350,000                | KFAED   | December 2018  | December 2019          |
| Upgrading of drinking water supply systems in Akkar governorate   | 4,500,000              | KFAED   | July 2018      | July 2019              |
| Drinking and Irrigation Water Supply Project in Bcharre District  | 37,000,000             | KFAEDt  | January 2020   | December 2022          |
| Water supply augmentation projects in Iqlim el Kharroub in Chouf district – Mount Lebanon governorate                           | 2,736,140              | KFAED   | May 2018       | May 2022               |
| Completion of water projects in the districts of Chouf and Aley   | 15,000,000             | Saudi Fund                                    | December 2018  | December 2019          |
| Drilling and Equipping of a water well and completion of drinking water network in Chebaa                                       | 2,767,549              | Kuwait Fund for Arab Economic Development     | May 2018       | May 2019               |





## WASTEWATER

### Sector Overview

Until early nineties, the wastewater facilities were limited to old networks scattered across the country. The major cities were equipped with incomplete wastewater networks with no treatment facilities, while smaller communities lacked both waste water networks and treatment plants. As a result, the ground and surface water pollution exacerbated day after day (free discharge polluting the sea and the shores, inappropriate septic tanks, surface water channels and streams polluting the aquifers...), yet creating health-threatening and environmental problems.

The insufficiency of wastewater service in the Lebanese territory is due to many reasons, mainly:

- 1) The insufficient investments in the sector required to improve and develop wastewater facilities up to appropriate service and environmental levels.
- 2) The absence of convenient management and executive structure that responds to the increasing need for wastewater service and adopt new management methods and modern wastewater disposal techniques.

To face this hazardous situation, the CDR has intervened since 1992 under the following three wastewater strategic themes:

- 1) Execution of urgent repairs and renovations of the existing wastewater networks and pumping stations, and dealing with new challenges.
- 2) Completion of the unfinished projects that were interrupted by force-majeure, and expanding/rehabilitating networks according to needs.
- 3) Implementation of two programs aimed at protecting the Lebanese coasts and water resources from pollution.

In other words, the target of this strategy is to address the problems of pollution and the random disposal of wastewater across all Lebanese territory. Meanwhile, the Lebanese Government is still working on the re-organization of the sector and the improvement of the public wastewater service. In March 2012, the Lebanese Government officially adopted its National Water Sector Strategy (NWSS) which is considered as a reference guide for all concerned public administrations and institutions.

A great deal of progress has been made regarding themes 1 and 2. During the next phase the CDR will focus mainly on theme 3.

At the institutional level, the promulgation of Reform Law No. 221/2000 constituted a primordial step towards the restructuring and modernization of the sectors of water and wastewater; the public water properties were delimited (surface and underground) and water management (potable, irrigation, and wastewater) was completely vested in four independent public institutions (except irrigation in South Lebanon and West Bekaa which remained under the management and exploitation of the Litani River Authority). Moreover, all the water utilities became affiliated with these institutions, under the tutelage of the Ministry of Energy and Water.

In 2001, the administration boards for the water institutions were appointed. In 2005, the organizational decrees were issued in order to achieve many goals, mainly the rehabilitation of water and wastewater utilities, improvement of their level of service, expansion of their coverage, and maintaining their administrative functionality and financial sustainability.

### Achievements between 1992 and 2017

The aggregate value of projects executed to date in the wastewater sector totaled US\$ 745<sup>1</sup> million; the main projects are the following:

<sup>1</sup> This sum includes a number of active contracts but does not cover costs of land acquisitions.

- Rehabilitation of wastewater networks (within the framework of National Emergency Recovery Program NERP1-first year): Achievements under NERP include the urgent rehabilitation and construction of sewer networks in different areas of Lebanon, in addition to the rehabilitation of two wastewater-pumping stations in Al Mina (Tripoli) and Jounieh, and the construction of 1000 kilometers of sewer networks and channels.
- Completion of Al Ghadir Wastewater Pre-treatment Plant: The construction and equipping of the wastewater pre-treatment plant were completed in Ghadir, South of Beirut, as well as the rehabilitation of the associated sea outfall with a total budget of US\$ 10 million. This plant will serve the southern part of the Districts of Baabda and Aley, the west-southern part of Greater Beirut and the northern parts of the District of Chouf. This plant was put in service in November 1997.
- Beirut coastal wastewater collector project: The purpose of this project is to protect the coastal strip extending from the District of Metn to the District of Chouf and eliminate all sea outfalls along this area by collecting and conveying the wastewater to the Dora and Ghadir pre-treatment plants. The conveyor line comprises two sections: the northern section and the southern section.  
The northern section includes the 17 km coastline extending from Dbayeh to Dora and from Ras Beirut to Dora, in addition to five pumping and lifting stations. All works of the projects were completed in 2000 (with an approximate budget of US\$ 48 million); it was designed to serve 1.5 million residents living in the Beirut River catchment area by 2015.  
The southern section includes the Carlton-Al Ghadir collector, with a total budget of US\$ 15 million. It is designed to serve 750,000 residents in the south western part of Beirut city and part of its southern suburbs, and a part of the District of Baabda, while the Damour-Al Ghadir line, with an approximate budget of US\$ 9.5 million funded by the Islamic Bank, was designed to serve a major part of the District of Aley and part of the District of Chouf (more than 100,000 residents). It includes about 30 km long collection pipes and three pumping stations.
- Execution of the first phase of rehabilitation of Beirut infrastructure, including the wastewater network (sections 1 and 2) with an approximate budget of US\$ 25 million. The project aims mainly at constructing a new independent rainwater drainage network separate from the wastewater network.
- Execution of the second phase of rehabilitation of Beirut infrastructure, including the wastewater network, with an approximate budget of US\$ 38.5 million funded by the Islamic Bank for Development; and the execution of first component of phase III in Ashrafieh and Rmeil, with an approximate budget of US\$ 10 million, funded by the Arab Fund for Economic and Social Development.
- Completion of the pre-treatment plant in Saida and its sea outfall with an approximate budget of US\$ 21 million funded by the Japan Bank for International Cooperation (JIBC), and the execution of the first phase of wastewater networks rehabilitation in Saida and its suburbs through the rehabilitation of the existing network and creation of a new network to divert wastewater to the treatment plant; as well as phase 2 of wastewater collection networks in the Saida coastal area, with an approximate budget of US\$ 22 million, funded by the Japan Bank for International Cooperation (JIBC). This is a preparatory step to connect these networks to the lines leading to the completed treatment plant.
- Completion of the works in Tripoli wastewater treatment plant, with a total budget of € 92 million, and completion of works in the connected sea outfall with a total budget of €6 million. Both projects were funded by the European Investment Bank (EIB), and serve Tripoli coastal area, Qalamoun, some sections of the Districts of Koura and Zgharta, in addition to the coastal areas of Beddaoui, Deir Aamar and Minnieh.
- Northern wastewater coastal collector section extending over the coast of Tripoli (Bared-Beddaoui sections). It includes the main collector, the lifting stations, and the main, secondary and subsidiary sewer lines connected to the main collector, serving more than 100,000 residents, with a total budget of € 12 million funded by a grant from the German Government. The donor executed and managed the project in collaboration with the Council for Reconstruction and Development (CDR).
- Southern wastewater coastal collector section extending over the coast of Tripoli, serving regions in Koura, Qalamoun, Bohsas and Tripoli, with a total budget of US\$ 13.50 million, funded through a loan from the European Bank for Investment and the Lebanese Government.
- Construction of wastewater networks and pumping stations in the coastal and inland villages and towns of Koura – Phase I – connected to the treatment station in Tripoli, estimated at nearly US\$ 16.50 million, funded by the French Development Agency and the Lebanese government. To date 95% of the project

has been completed.

- Execution of the household connections connected to Koura wastewater networks (Phase I), estimated at US\$ 4 million locally funded.
- Construction of a secondary wastewater treatment plant in the coastal area of Tyre, to serve around 300.000 residents, with a total budget of US\$ 40 million, funded by the European Investment Bank (EIB). Moreover, the construction of primary and secondary sewer networks connected to the wastewater treatment plant in the coastal area of Tyre Caza have been completed, with an estimated value of US\$ 31 million funded by The European Investment Bank (EIB) and the Lebanese Government.
- Completion of the works stipulated in the Lebanese-French Protocol Agreement on Waste Water Treatment with a total budget of € 56 million; the works included the construction of waste water treatment plants and sea outfalls (for the coastal plants) in the following regions: Chouf coast (Ras Nabi Younes), Nabatieh (Sharqiyeh), Chekka, Batroun (sea outfall under construction) and Jbeil. The first plant is designed to serve the coastal villages and towns in Iqlim el Kharoub; the second plant serves Nabatieh and a number of neighboring villages and towns, and the third and fourth plants serve the coastal towns and villages of the District of Batroun, whereas the fifth serves the coastal area of the District of Jbeil.
- Construction of wastewater networks and pumping/lifting stations in Batroun villages and towns, connected to the existing treatment plant, with a total budget of US\$ 24 million, funded by the French Development Agency and the Lebanese Government.
- Construction of wastewater networks and pumping/lifting stations in the villages and towns of coastal Chouf, connected to the waste water treatment plant located in Ras Nabi Younes, with a total budget of US\$ 19 million, funded by the Arab Fund for Economic and Social Development and the Lebanese Government.
- Construction of wastewater networks and pumping/lifting stations in the villages and towns of coastal Chekka, connected to the waste water treatment plant located in Chekka, with a total budget of US\$ 18 million, funded by the French Development Agency and the Lebanese Government. Work is underway to put the Chekka treatment plant in service.
- Completion of the wastewater networks in the villages of the Chouf-Souayjani Municipalities Union, with a total budget of US\$ 5.75 million, locally funded.
- Construction of a wastewater treatment plant in Baalbeck (Iaat), with a total budget of US\$ 6.35 million funded by the International Bank for Reconstruction and Development (IBRD), to serve the city of Baalbeck and several neighboring villages.
- Completion of the sewer lines and additional drinking water distribution lines in Khodor, Khraibeh, Nabi Shit and Baalbeck, with a total budget of US\$ 5.3 million, funded by the World Bank.
- Implementation of a pilot project for wastewater treatment in Bcharre in the North of Lebanon, through the adoption of bamboo filtering technique, with a total budget of US\$ 700.000, funded by the French Development Agency.
- Maintenance and upgrading of wastewater and rain water networks in main cities: The works started in 1997 upon a Council of Ministers resolution. The works included periodical maintenance, repair of wastewater and rainwater networks in the main cities, in addition to limiting the overflow and preventing breakdowns in the existing networks. The works also included the cleaning of wastewater and rainwater networks, the installation of pipes and other necessary supplies to improve the efficiency of these networks. The project covered Greater Beirut with its southern and northern suburbs, Tripoli, Zahle, Jounieh, Saida, Tyre, Nabatieh and their suburbs. This project was implemented in coordination with the Ministry of Interior and Municipalities.

#### **Progress of the ongoing projects:**

##### **1) The Coastal Pollution Control Program**

The Lebanese government signed several agreements to protect the Mediterranean waters against pollution, namely the Barcelona Convention. These agreements stressed on the necessity of treating wastewater before it is discharged in the sea from cities and towns with populations exceeding 100,000 residents. Accordingly, the necessary preparations were made to execute several wastewater collection and treatment systems in the coastal areas of Lebanon. To date, the aforementioned treatment plants and related collection networks were completed. The following projects are underway:

- The Construction of main wastewater lines and sewer networks in a number of mountainous villages of Aley and Baabda Cazas located within the water basin of Al Ghadir Wastewater Treatment Plant, estimated at nearly US\$ 30 million, funded by the German Government and the Lebanese Government. About 80% of the work has been completed to date.
- The Waste water collection and treatment project in the northern coastal area of Greater Beirut serving 1.3 million residents: The installation of main wastewater lines and sewer networks is underway in the suburbs and a number of villages in the District of Metn located within the Beirut River Water Basin (Dora), with a total budget of US\$ 29.50 million, funded by the European Investment Bank (EIB). About 90% of the work has been completed to date.
- The CDR launched the project related to the completion of wastewater networks (Phase II) connected to the wastewater treatment plant existing in Ras Nabi Younes in the coast of Chouf Caza. This network complements the networks installed during the previous phase. The value of works amounted to nearly US\$ 10 million, funded by the Arab Fund and the Lebanese Government. 5% of the works has been completed to date.
- The CDR also launched the project related to wastewater networks in Deckerman-Saida connected to the wastewater pre-treatment plant located near the city of Saida. The value of works amounts to nearly US\$ 7 million, funded by the Kuwait Fund. Around 8% of the works have been completed to date
- Implementation of the second phase of the primary and secondary wastewater networks connected to the treatment plant in the coastal area of Tyre, with a total budget of US\$ 26 million funded by the Lebanese Government, with 85% completion to date.
- Execution of the sea outfall connected to the wastewater treatment plant in the coastal area of Tyre, with a total budget of US\$ 12 million funded by the European Investment Bank (EIB); 85% of the work has been completed to date.

The CDR also launched the potable water and wastewater networks project in Jbeil coastal area, with a total budget of € 38 million project funded by the Italian Government, with € 19 million allocated to wastewater covering the area extending from Amchit in the north to Fidar in the south. 45% of the work has been completed to date.

## 2) Water Resources Protection Program

In 1994, the Ministry of Environment conducted a study to update the Wastewater Master Plan of 1982. This study determined water gravity basins and priority areas for the construction of new wastewater treatment plants to protect water resources from pollution. Based on this study, the Ministry of Energy and Water developed in 2010-2011 a Waste Water Strategy that was subsequently adopted by the government.

Since the nineties, and with the aim to protect these basins, funds have been secured to implement new wastewater systems in main inland cities (Zahleh, Baalbeck, Nabatieh, and others); and in villages/towns close to water courses and springs (Laboueh, Qaraoun Lake, Anjar, Temnin, Hermel, Mechmech, Becharre, Bakhoun, Chebaa, Jbaa, Hasbaya, Chakra, Hrajel and Kartaba).

The Construction of the Baalbeck wastewater treatment plant, funded by the World Bank, was completed in the summer of the 2000; the wastewater collection and treatment works in the regions of Jebb Jannine and Saghbine and neighboring villages were completed, with a total budget of US\$ 39 million funded by the Islamic Development Bank. Similarly, the construction a wastewater treatment plant in Zahle and its related lines, with a total budget of US\$ 29 million funded by the Lebanese-Italian Financial Protocol, which were put in service in the summer of the year 2017.

In Mount Lebanon Region, a project a wastewater treatment plant for the region of Khenchara and its neighboring villages is underway (Khenchara, Baskinta, Marjaba, Ghabet Bolonia, Mrouj, Dhour Choueir and others), with a total budget of US\$ 11 million funded by the Abu Dhabi Development Fund. In addition, the CDR completed the rehabilitation, operation and maintenance works in 3 sewer treatment plants in the district of Chouf (Jdeidet el Chouf, Ainbal & Gharifeh) with local funds amounting to US\$ 2.10 million. The CDR also installed and put in service sewers lines and a treatment plant in Kfar Katra with local funds amounting to US\$ 2.20 million.

In the South of Lebanon, the CDR completed three treatment plants and their related sewer networks in Yohmor, Kfar Sir, and Zaoutar, with a total budget of US\$ 15.20, funded by the European Union.

The CDR also implemented a pilot project in Becharre, the installation of a waste water treatment plant, adopting the “Filtre a Roseaux” technique, with a total budget of US\$ 625,000 funded by the French Government.

On the other hand, the construction of two wastewater treatment plants and networks in Barouk, Freidis, AinZhalta, Nabaa el Safa, Al Aazouniye and Ain Dara is underway, with a total budget of US\$ 21 million, and the treatment plant in Bcharre with a total budget of US\$ 5 million, all funded by the Arab Fund for Economic and Social Development (90% of the work has been completed in Chouf and 50% in Bcharre); the construction of wastewater networks in the villages of the Union of Municipalities of Chouf-Souaijani is also underway, with a total budget of US\$ 14.40 million locally funded. About 95% of the work has been completed. Similarly, the CDR launched the execution of sewer networks in the region of Upper Chouf, with a local funding of US\$ 7.25 million. About 50% of the work has been completed. The CDR also launched the collection and treatment of wastewater in Marjeyoun-Khiam, with funding from the Kuwait Fund and the Lebanese Government. The cost of works is estimated at nearly US\$ 48 million, and 10% of the work has been completed to date.

#### Main contracts signed during 2017

- Operation and maintenance of the main coastal collector extending from Nahr el Bared to the wastewater treatment plant located in Tripoli, with an estimated budget of US\$ 508,000, locally funded.
- Addendum to the contract related to the installation of wastewater networks and pumping stations in the towns and villages of coastal Chekka, with a value of US\$ 1.248 million, locally funded.
- The installation of an emergency wastewater sea outfall in the coastal region of Kesserouan, with a total budget of US\$ 5.380 million, funded the European Investment Bank (EIB) and the Lebanese Government.
- Addendum to the contract related to the installation of wastewater networks in the towns and villages in the northern area of coastal Greater Beirut, with a value of US\$ 5.380 million funded the European Investment Bank (EIB) and the Lebanese Government.
- Addendum to the contract related to the installation of wastewater networks within the catchment of Al Ghadir River in South Beirut, with a value of US\$ 7.73 million, funded by the German and the Lebanese Government.
- Installation of wastewater networks (Phase II) in the villages and towns in coastal Chouf, with a total budget of US\$10.12 million funded by the Arab Fund for Economic and Social Development and the Lebanese Government.
- Installation of complementary wastewater networks in the villages of the Union of Municipalities of Chouf-Souaijani, with a total budget of US\$ 2.49 million, locally funded.
- Complementary works related to the wastewater treatment plants located in the villages of the Union of Municipalities of Chouf-Souaijani, with a total budget of US\$ 442.000, locally funded.
- Rehabilitation of main wastewater lines in Abra, Mjeydel and Meemariyeh connected to the treatment plant located in Saida Coastal region, with a total budget of US\$12.30 million, funded by the Kuwaiti Fund.
- Addendum to the contract related to the execution of wastewater networks in Tyre coastal region, with a total budget of US\$ 5.14 million, funded by the European Investment Bank (EIB) and the Lebanese Government.
- The execution of complementary wastewater networks (Phase II) connected to the wastewater system in Tyre coastal region, with a total value of US\$ 2.78 million, locally funded.
- Complementary works related to the wastewater plant of Tebnin/Bint Jbeil wastewater system, with a total value of US\$ 2.92 million, funded by the Kuwaiti Fund.
- Installation of wastewater networks and a treatment plant related to the Marjeyoun-Khiam wastewater system, with a total budget of US\$ 48.5 million funded by the Kuwaiti Fund and the Lebanese Government.
- Addendum to the contract related to the installation of wastewater networks and a treatment plant related to Zahle wastewater system, with a total budget of US\$ 2.81 million funded by Italy and Lebanon.
- Installation of wastewater networks and a treatment plant related to the Temnin wastewater system in the Upper Basin of the Litani River in the district of Baalback, with a total budget of US\$ 29.50, funded by the Arab Fund and the Lebanese Government.

## Main Projects under Preparation (2018-2020)

### I- Coastal Pollution Control Program:

The Ministry of Energy and Water previously conducted a full study for the district of Akkar. As a result, a Master Plan for Waste water Collection and Disposal in Akkar was developed among which the construction of waste water networks and a treatment plant on the Abdeh coast. To implement this scheme, the CDR secured a loan from the Arab Fund, and preparations are underway to launch the related tenders.

The CDR also secured €70 million loan from the European Investment Bank to construct two wastewater treatment plants in the Kesrwan coastal zone, and another €70 million loan from the French Development Agency to install the related networks. Work is underway to update the studies and develop the tender documents pertaining to this project.

Similarly, the CDR is preparing to launch the wastewater treatment plant implementation in Qarantina and Dora (northern Beirut) and its related remaining networks after securing a €60 million loan from the European Investment Bank. The execution of the waste water networks component for this project is underway.

Also, the CDR is preparing to launch the study for the upgrading of Al Ghadir Wastewater Pre-treatment Plant (South of Beirut city). The CDR managed to secure the necessary funds to cover the costs of Phase I works which include the construction of complementary wastewater networks, and the upgrade of the existing pre-treatment plant with a total budget of US\$ 173 million after negotiations held with the European Investment Bank and the Islamic Development Bank.

On the other hand, the CDR obtained US\$ 100 million additional financing for complementing various water and wastewater projects in a number of coastal and inland Lebanese regions, including the Akkar coastal area, where the cost of the works are estimated at US\$ 40 million. Preparations are underway to launch the related call for tenders. On the other hand the completion of waste water networks in the Chouf coastal area related to Ras Nabi Younes treatment Plant is underway.

The CDR signed a US\$ 65 million loan, with the Kuwait Fund, to finance the execution of Sarafand system in the district of Saida extending from Zahrani to Qasmieh River. Preparations are underway to launch the tender process.

The CDR also obtained a grant from the Kuwait Fund amounting to US\$ 5 million dedicated to complete the waste water network in El Mina area in Tripoli and connect it to the coastal line extending to the existing treatment plant.

The CDR is also working on acquiring the required funds for the upgrade of the existing Saida Waste Water pre-treatment Plant in South Lebanon.

II- **Water Resources Protection Program:** The Ministry of Energy and Water and the CDR have identified around 20 inland wastewater projects to protect the resources (springs, rivers, lakes, etc.). Detailed studies are completed for many projects that mostly fall within the framework of the financing agreements (Italian Protocol, Islamic Development Bank and Arab Fund for Economic and Social Development). A special focus made on the West Bekaa area, Qaraoun Lake and the Litani River, where the high level of water pollution requires an urgent intervention through the installation of wastewater collection lines and treatment facilities.

The CDR had also secured funds to implement the wastewater project in the upper basin of the Litani River through a US\$ 85 million loan agreement signed with the Arab Fund for Economic and Social Development (AFESD). Chebaa, Becharre, Safa and Barouk areas also benefit from this loan. The CDR obtained an additional loan amounting to of US\$ 100 million to fill the financial gap and continue the implementation of these projects. As previously mentioned, some of these projects have started the preparatory works are underway to execute the remaining projects.

The CDR also secured a €27 million loan from the German Agency KfW to protect the Jeita spring from pollution. The works are estimated at US\$ 38 million. The related studies are underway. The project is divided into three phases targeting the collection and treatment of wastewater generated from towns and villages situated within the catchment area of Daraya, Kleiat, Bekaata, Bkaatouta, Kfardebian and neighboring cities in the District of Kessrouan.

Moreover, the CDR launched the tenders related to executing two wastewater collection and treatment projects in Mechmech – Akkar and Hrajel – Keserwan, estimated at around US\$ 55 million funded by the Italian Protocol. The CDR also launched the tenders related to the waste water collection and treatment project in a number of villages in Central Bekaa (Anjar – Majdel Anjar- Souairi-Bar Elias-Kab Elias- Marj...) funded by the Italian Protocol.

The CDR also secured a US\$ 46 million loan from the Kuwaiti Fund to implement the wastewater collection and treatment systems in the villages of Marjeyoun and Bint Jbeil in Nabatieh governorate, and launched their related works. In addition, the CDR received a € 15 million grant from the European Union to complement the waste water networks in Koura (Wadi Hab/Dahr El Ain – Bohsas line, and Wadi el Nakhle Abou Halka/ Batroumin-Ras Masqa line) and in Tripoli (Qalamoun- Bohsas connector), and connect them to the existing plant in Tripoli; the preparations are underway to launch the works tenders, and complement the waste water network and connect it to the existing plants in Ablah and Forzol in Zahle caza.

#### Schedule of main contracts signed in the wastewater sector during 2017

| Project  | Estimated value (US\$ million) | Source of Funding   | Start Date    | Estimated Completion Date |
|--|--------------------------------|---|---------------|---------------------------|
| Operation and maintenance of the main coastal collector extending from Nahr el Bared to the wastewater treatment plant located in Tripoli            | 0,508                          | Local funding   | August 2017   | November 2019             |
| Addendum to the contract related to the installation of wastewater networks and pumping stations in the towns and villages of coastal Chekka         | 1,248                          | Local Funding   | May 2017      | May 2018                  |
| Execution of the emergency wastewater sea outfall in the coastal region of Kesserouan  | 1,563                          | Local Funding   | December 2017 | November 2019             |
| Addendum to the contract related to the installation of wastewater networks in the towns and villages in the northern area of coastal Greater Beirut | 5.38                           | European Investment Bank and the Lebanese Government                      | February 2017 | April 2018                |
| Addendum to the contract related to the installation of wastewater networks within the catchment of Al Ghadir River in the South of Beirut           | 7.73                           | German Development Agency and the Lebanese Government                     | April 2017    | April 2019                |
| The installation of wastewater networks (Phase II) in the villages and towns of coastal Chouf  | 10.12                          | Arab Fund for Economic and Social Development and the Lebanese Government | August 2017   | August 2019               |

|  |       |   |                |               |
|--|-------|---|----------------|---------------|
| Rehabilitation of main wastewater lines in Abra, Mjeydel and Meemariyeh connected to the treatment plant located in Saida Coastal region | 12.30 | Kuwaity Fund  | June 2017      | February 2019 |
| Construction of wastewater networks and a treatment plant in Marjeyoun-Khiam system  | 48.5  | Kuwaity Fund and the Lebanese Government                                  | May 2017       | April 2019    |
| Addendum to the contract related to the execution of wastewater networks in Tyre coastal region  | 5.14  | European Investment Bank (EIB) and the Lebanese Government                | May 2017       | October 2017  |
| Design and construction of a treatment plant in Temnin el Tahta in the Upper Basin of Litani River                                       | 18    | Arab Fund for Economic and Social Development and the Lebanese Government | September 2017 | August 2019   |
| Execution of wastewater networks in Temnin system in Upper Basin of Litani River   | 11.44 | Arab Fund for Economic and Social Development and the Lebanese Government | September 2017 | August 2019   |

#### Schedule of main projects under preparation in the wastewater sector (2018-2020)

| Project   | Estimated value million US\$ | Tyrece of Funding   | Expected start date | Expected completion Date |
|---|------------------------------|---|---------------------|--------------------------|
| Coastal pollution Control Program   |                              |   |                     |                          |
| Construction of sewer networks and a treatment plant sea outfall in Akkar coastal area and                              | 62                           | Arab Fund and Local Funding                                       | September 2018      | July 2022                |
| Construction of sewer networks and two wastewater treatment plants in Kesserouan coastal region                         | 175                          | European Investment Bank and French Development Agency + EU + NIF | June 2019           | December 2022            |
| Construction of a pre-treatment plant in Beirut River catchment area  | 16.25                        | European Investment Bank  | December 2018       | December 2020            |
| Construction of wastewater networks (Phase II) in Ghadir River catchment area   | 86                           | European Investment Bank  | December 2019       | December 2023            |
| Extension & upgrade of Al Ghadir Wastewater Treatment Plant, south of Beirut  | 85                           | Islamic Development Bank  | February 2020       | December 2023            |
| Construction of sewer networks and a treatment plant and sea outfall in the region of Sarafand in the district of Saida | 67                           | Kuwaity Fund  | December 2018       | December 2022            |

|  |    |                                      |                |                |
|--|----|--------------------------------------|----------------|----------------|
| Completion of sewer networks in Tyre coastal area – Phase III  | 13 | Locally funded                       | May 2019       | December 2021  |
| <b>Water Resources Protection Program</b>  |    |                                      |                |                |
| Construction of sewer networks and a treatment plant inMechmech region –Akkar                                      | 31 | Italian Protocol                     | September 2018 | December 2021  |
| Construction of sewer networks and a treatment plant for Bakhoun region - Dannieh                                  | 19 | Italian Protocol                     | December 2020  | December 2023  |
| Construction of sewer networks and a treatment plant for Hrajel region-Kesserouan                                  | 24 | Italian Protocol                     | September 2018 | December 2021  |
| Construction of sewer networks and a treatment plant for Jeita region - Keserwan (Sections 1, 2 and 3)             | 38 | German Agency, KFW and local funding | December 2018  | June 2021      |
| Construction of wastewater networks and two treatment plants for Manasef and Jisr el Kadi in the district of Chouf | 64 | Kuwait Fund and local funding        | January 2019   | March 2022     |
| Construction of sewer networks and a treatment plant for Bint Jbeil and its town surroundings                      | 11 | Italian Protocol                     | December 2019  | December 2022  |
| Construction of sewer networks and treatment plant for Hasbaya and its town surroundings                           | 8  | Italian Protocol                     | December 2019  | December 2022  |
| Construction of sewer networks and treatment plant for the Arqoub region – Hasbaya                                 | 30 | Arab Fund and Local Funding          | July 2019      | December 2022  |
| Construction of sewer networks for Jbaa and its surroundings – Nabatieh  | 7  | Italian Protocol                     | May 2019       | September 2020 |
| Construction of sewer networks and a treatment plant for Hermel and its town surroundings                          | 20 | Italian Protocol                     | July 2020      | December 2023  |
| Construction of sewer networks and a treatment plant for Laboueh and its surroundings - Baalbek                    | 15 | Local funding                        | March 2019     | December 2021  |
| Construction of a treatment plant and sewer networks in Anjar, and Majdal Anjar area ( Phase- I)                   | 26 | Italian Protocol                     | July 2018      | December 2021  |
| Construction of a treatment plant and sewer networks in Anjar, and Majdal Anjar area (Phase- II)                   | 26 | World Bank                           | February 2019  | December 2022  |

|   |   |                |           |           |
|---|---|----------------|-----------|-----------|
| Construction of sewer networks connected to the two treatment plants in Ablah and Forzol - Zahleh | 5 | European Union | July 2019 | July 2020 |
|---|---|----------------|-----------|-----------|



Waste Water Infrastructure - Tripoli



Waste Water Pumping Station - Tyre



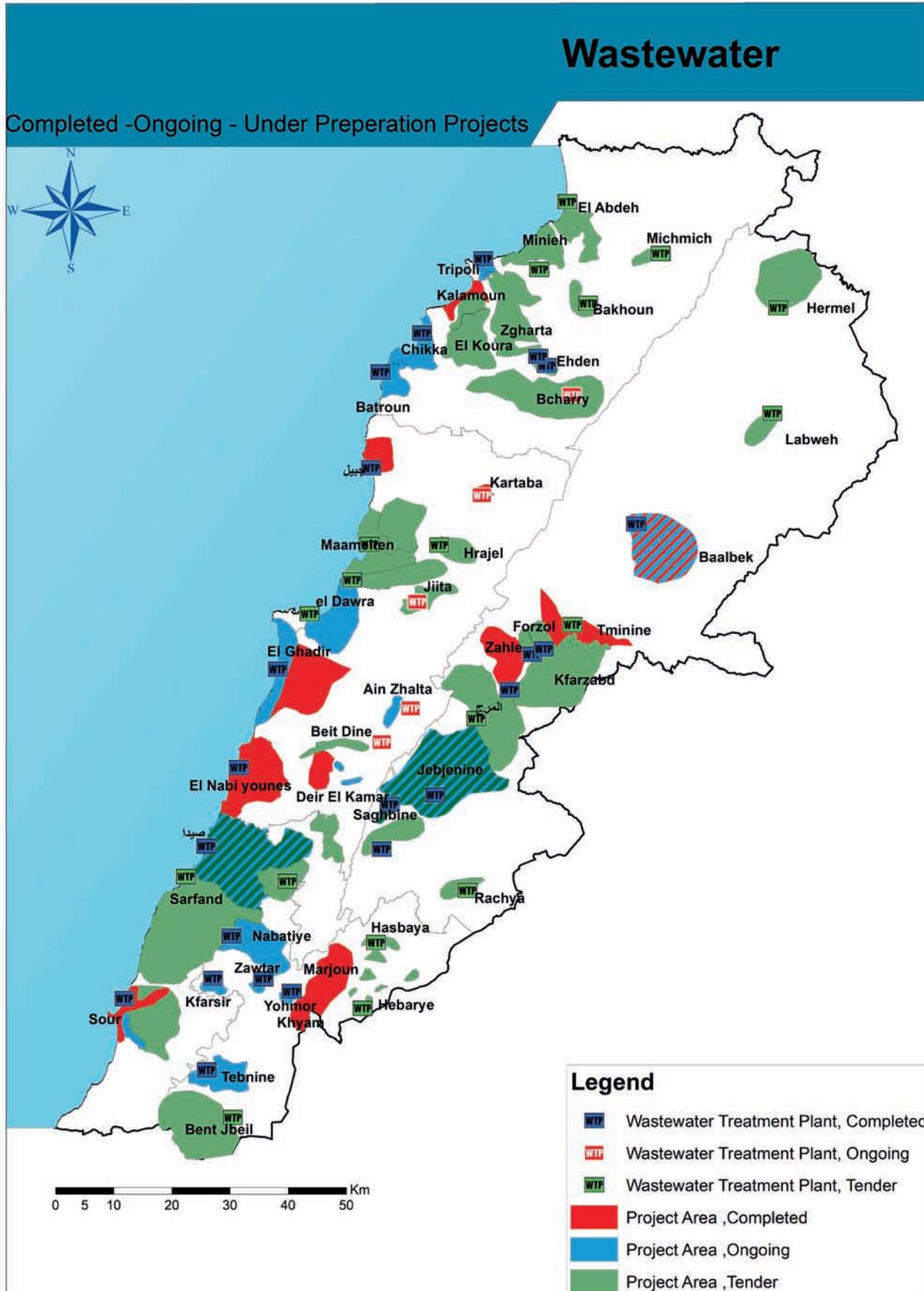
Waste Water Treatment Plant - Barouq



Waste Water Treatment Plant - Tyre



Waste Water Pumping Station - Tyre



## Household Solid Waste

### **Overview of Household Solid Waste Sector**

In a general sense, waste is a broad term that refers to items consumed by the public or materials left behind by a human activity or process, and which, due to their physical and/or chemical and biological properties become of no value and therefore neglected and intended to be discarded or disposed of. In Lebanon, the current legislations governing waste, the waste management practices and the majority of CDR's projects and contracts all tackle domestic solid waste commonly known as Municipal Solid Waste (MSW). Other types of waste should be treated by the private entities producing such waste, under the guidance and full supervision of the concerned ministries, based on the "polluter pays" principle, as stipulated by applicable laws and regulations.

Current situation: Concerned authorities in Lebanon are working towards the promotion of an integrated waste management plan that is aligned with the socio-political situation and that translates into concrete actions the desired waste management expectations, in synergy with sustainable development principles embedded in other national programs and policies, which will ultimately reduce environmental degradation.

The Council of Ministers' decision No.1 dated 30/03/2010 established a committee headed by the Prime Minister and composed of the Minister of Displaced, The Minister of State for Administrative reform, the Minister of Interior and Municipalities, the Minister of Environment, the Minister of Energy and Water and the President of Council for Reconstruction and Development (CDR). This committee was commissioned to develop an integrated waste management plan proposal covering all Lebanese regions, and tackling in particular the following:

- Techniques and methods to be adopted for the implementation of the plan;
- Suggested sites for the implementation of the plan;
- Fundraising mechanisms;
- The authority in charge of the plan.

The said committee is also in charge of making recommendations concerning the measures and procedures to be taken with regard to Naameh temporary landfill.

On 01/09/2010, the Council of Ministers issued decision No. 55, to endorse the recommendations of the inter-ministerial committee summarized as follows:

- 1- Adopt thermal decomposition and waste-to-energy technologies in large cities;
- 2- Adopt the 2006 master plan and study the possibility of adoption of thermal decomposition in the remainder of the country;
- 3- Engage the private sector and facilitate its tasks in the provision of Solid Waste Management Services, either on a turnkey basis (from collection to final treatment) or by handling one of the following options:
  - a. Collection
  - b. Treatment
- 4- Mandate the Ministry of Environment (MoE) and the CDR to merge their respective proposed plans, in synergy with what is agreed upon above;
- 5- Mandate the Ministry of Energy and Water to propose a legislation that entitles the private sector to

produce and sell energy generated from waste;

- 6- Offer incentives to the municipalities that will host waste treatment facilities: thermal decomposition plants, processing stations, composting stations and landfills;
- 7- Mandate the CDR, in coordination with the MoE, to contract an international consulting firm to:
  - Select the most appropriate and proven solutions adapted to the Lebanese case (based on the spirit of the plan);
  - Develop the Request for Proposal (RFP) for the preliminary shortlisting of the thermal decomposition companies (Due diligence to short list only proven technologies);
  - Assess and classify companies;
  - Draft the RFP for the final tender;
  - Perform bids appraisal;
  - Monitor the implementation
- 8- Mandate the Ministry of Environment to contract an international consulting firm to control the workflow quality in accordance with the spirit of the plan and ensure good work progress;
- 9- Mandate the Ministry of Environment to hire a local consulting firm to conduct an awareness and guidance campaign to gain public support for the thermal decomposition technique;

Vest the Cabinet with the power to oversee the work progress and secure necessary funds, and to learn from successful experiences and best practices of neighboring countries.

#### **Main Challenges:**

- One of the biggest challenges facing the household waste in Lebanon lies in landfill locations, whether they are ordinary dumps or landfill sites for final dumping following sorting and recycling; another challenge is dealing with waste before reaching the dumps. Therefore, the emphasis should be moved towards recycling and composting.
- Solid waste management constitutes also a great challenge from a financial perspective, in particular in a developing country like Lebanon, due to the absence of sufficient adequate regulatory legislations.
- The legislations on household solid waste management in Lebanon are shallow, contradictory and unclear, especially with respect to the role and tasks distribution between the concerned departments and ministries. A draft law on integrated waste management is currently underway.
- The Union of Municipalities, upon the administrative and technical support of the Ministry of Environment and the Ministry of Interior and Municipalities, should consolidate the efforts for the selection of locations for dumps and sorting and composting facilities. This will be achieved through the establishment of a constructive dialogue and consultation process with the civil society, who would obstruct projects implementation, if not involved.

#### **Main achievements of the (1992-2017) period**

The Lebanese governments did not adopt a central policy or a unified management strategy for the treatment of solid waste in Lebanon, due to the fact that waste management used to fall within the prerogatives of municipalities, acting as the administrations overseeing the proper execution of these services. However, the Lebanese civil war negatively impacted the municipalities' financial, administrative and technical capacities, which jeopardized the continuity of their operations. In the beginning of 1992, the government assigned the management of this sector in Beirut and suburbs to CDR, due to the incapacity of municipalities to deal with this issue. Since that date, CDR has been working, in coordination with the concerned ministries, to put in place an integrated policy that provides the best solutions for Lebanon.

**Emergency plan for the treatment of solid waste in Greater Beirut:** Following the closure of the Bourj Hammoud dumpsite in January 1997, the government decided to implement an urgent plan for the treatment of solid waste in Greater Beirut. A contract was signed with SUKOMI to expand and raise the capacity of the Amrousieh and Qarantina solid waste treatment plants, upgrade the sorting process, separate recyclable material and extract compost material. This plan also included the construction of sanitary landfills for Greater Beirut and its suburbs. Two sanitary landfills were established in Naameh and Bsalim. Both are currently in operation.

**Rehabilitation of Tripoli dumpsite:** The uncontrolled dumpsite located on Tripoli coastline has been rehabilitated. A sea wall was constructed around it to reduce environmental risks. Moreover, the necessary equipment for operating the dumpsite in an environmentally friendly way was procured in order to upgrade solid waste management in Tripoli region. The dumpsite has been in operation since 1998.

**Construction of Zahleh sanitary landfill:** The new sanitary landfill serving Zahleh caza has been completed and the required vehicles and equipment for its operation have been procured. The works and procurements were financed by the World Bank. This dumpsite has been in operation since 2001.

**Construction of a sanitary landfill and a solid waste treatment plant in Baalbek caza:** under the integrated waste management plan.

**Procurement of waste collection equipment for various regions:** Within the framework of the urgent program, the World Bank funded the procurement of waste collection equipment, including vehicles, street sweeping equipment and special containers. These were distributed across all Lebanese regions. In the second phase of this project and within the framework of the Household Solid Waste Management Plan (SWEMP), the World Bank funded the procurement of waste collection and street sweeping equipment for the regions where construction works of sanitary landfills or rehabilitation of uncontrolled dumpsites were completed, such as Beirut, Zahleh and Tripoli.

**Hospital waste treatment:** In 1998, the CDR awarded the hospital waste treatment study, funded by the World Bank, to ERM. Several phases of the study have been completed. This has allowed concerned parties to take decisions regarding the most appropriate means for hospital waste treatment. The Ministries of Environment and Public Health together with CDR have decided to build a central incinerator, which complies with international standards and operates at a minimum temperature of 1200oC, as a possible means of hospital waste treatment. The environmental impact assessment and the design study have not been prepared because the appropriate construction site has not been identified yet.

**Marketing of compost and recyclable material:** The feasibility study for marketing organic compost and recyclable materials generated by the Quarantina, Amroussieh and other treatment plants was completed by ARCADIS/ EUROCONSULT in December 2003. The study was financed by the World Bank within the framework of SWEMP.

**Financial audit of amounts due to SUKLEEN and SUKOMI:** According to the Council of Minister's Decision No. 16 dated 14/8/2003 concerning the launching of an international tender for constructing and operating the solid waste treatment plants and landfills for a period of ten years, and in order to ensure the success of this tender, CDR was assigned to audit the amounts due to SUKLEEN and SUKOMI. Accordingly, the audit contract was awarded on 18/9/2003 to PRICEWATERHOUSECOOPERS, which is an international audit firm.

**Technical Assistance for identification of treatment plants and landfill locations and preparation of environmental impact assessment:** To implement the Council of Minister's directives concerning the identification of treatment plant and landfill locations, CDR awarded the impact assessment to Consultant Rafic Houry who started his mandate in the third quarter of 2003. The Consultant prepared the environmental impact assessment of the locations identified by the technical committee commissioned with this task.

The comprehensive Household Solid Waste Management Plan: The CDR put in place an integrated plan that was approved by the Council of Ministers in 2006. The plan is based on the following principles:

- 1- Recycling and composting to the greatest extent in order to minimize the quantity of dumped waste; and distribution of recycling, sorting and composting plants on all cazas, with one or more sanitary landfills in each service area.
- 2- For this purpose, Lebanon shall be divided into four service areas:
  - The North and Akkar governorates
  - The Bekaa and Baalbek-Hermel governorates
  - The South and Nabatiyeh governorates
  - Mount Lebanon and Beirut governorates
- 3- Create an incentives scheme for the municipalities that will host sorting stations, composting plants, sanitary landfills or incinerator centers. These municipalities will be paid a certain amount per every ton of solid waste, as proposed in the plan and according to laws and decrees that will be issued in this respect.
- 4- Municipalities shall deal with sweeping, collection and transport of waste to sorting stations and composting plants at their own expenses.
- 5- The contractor shall be responsible for financing the relevant study, executing and preparing the sanitary landfills, incinerator centers, sorting stations and composting plants. The contractor shall also be charged with the management of these facilities for ten years on the basis of a certain fee per each ton of transported and treated waste.

Maritime and back-filling works in Saida waste mountain area: the Council of Ministers issued Decision No. 37, dated 26/5/2009, directing the CDR to develop the necessary studies and draft decrees, and to implement the maritime and back-filling works in Saida waste mountain area. Funding is secured through the US\$ 20 million grant donated by the Kingdom of Saudi Arabia, and the remainder of the cost is financed by the Lebanese government.

Construction of several solid waste management and treatment plants and supply of their necessary equipment, by the Office of State for Administrative reform (OMSAR) with the financial assistance of the European Union: Since 2004, in the framework of ARLA (EUR 14.2 million) and SWAM1 (EUR 14 million), funded by the European Union, OMSAR, implemented several projects in the field of solid waste management: These projects include the following:

- Under the umbrella of ARLA: Construction and equipping of sorting and composting plants in the following regions: Ain Baal (Sour), Nabatiyeh, Ansar, Khiyam, Kabrikha, Chouf-Souaijani, Baalback, Jbeil, Tripoli, Minnieh, Mechmech (Akkar), and a medical waste treatment plant in Abbassiyeh.
- Under the umbrella of SWAM1: Rehabilitation and expansion of waste management plants in the following regions: Srar –Akkar (sorting, composting and sanitary landfilling), Baalback (sorting and sanitary landfilling), Zahle (sorting and composting), Jib Jannin (sorting, composting and sanitary landfilling).

#### **Work Progress during 2016 and 2017:**

**Construction of several solid waste management and treatment plants and procurement of their necessary equipment, under the execution of the Office of State for Administrative reform (OMSAR) and with the financial assistance of the European Union:** on 27/08/2015, the Council of Ministers approved the European Union grant intended to finance SWAM 2 (EUR 21 million), which includes the implementation of several solid waste management projects distributed as follows:

- Sorting and composting in the following regions: Dannieh, Zgharta, Koura, Batroun, Bint Jbeil.
- Sanitary landfilling in Bint Jbeil and Nabatiyeh.
- Rehabilitation of Ras Al Ain dumpsite.

OMSAR manages also a US\$ 50 million Lebanese government budget allocation, to operate and supervise afore-mentioned solid waste treatment plants.

**Expropriation and rehabilitation of the Ras el Ain waste dumpsite in Tyre:** On 22/05/2014, the Council of Ministers issued decision No. 99 regarding the approval of a list of projects suggested by the Ministry of Finance among which the expropriation of the Sour – Ras el Ain garbage mountain (US\$ 2 million). On 09/09/2015 the Council of Ministers issued decision No.1 regarding the elaboration of the solid waste treatment plan, which mandated the CDR to prepare the necessary studies in partnership with the Ministry of Environment to rehabilitate the Ras Al Ain waste dumpsite and award the related contract. Based on this decision, the CDR commissioned the Consultant MORES to develop an environmental impact assessment for the rehabilitation of Ras Al Ain waste dumpsite and prepare an expropriation file. This study was completed during the second half of 2016. The issuance of the Expropriation Decree is underway.

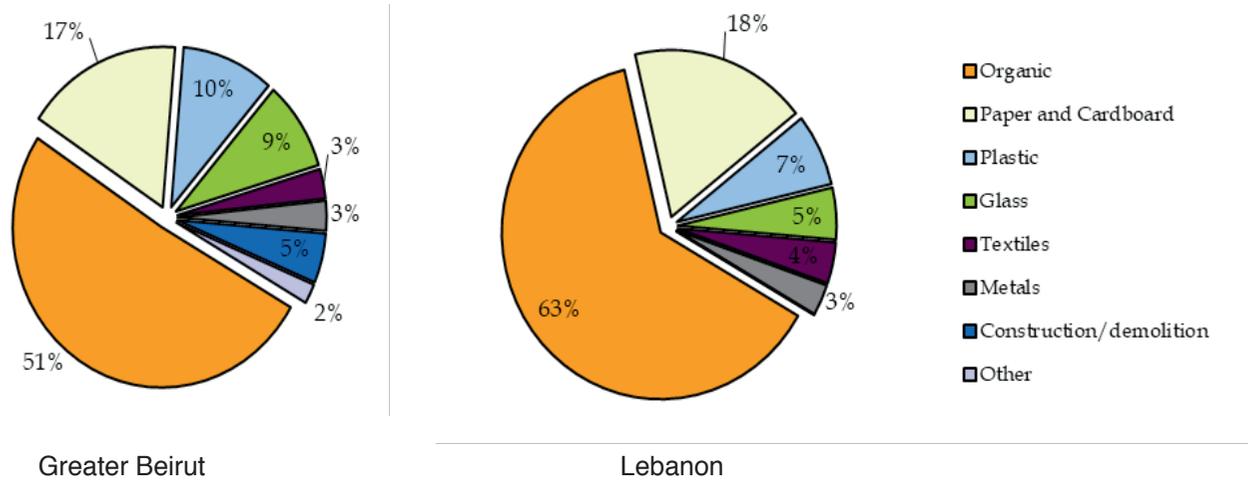
**Tenders to award the Management of Solid Waste (sweeping, collection, treatment and landfilling) in five service areas and a forced shutdown of the Naameh landfill:** On 30/10/2014 the Council of Ministers' decision No.46 mandated the CDR to prepare an RFP to outsource a) the garbage sweeping and collection works and b) the garbage treatment and landfilling works. The decision identified five service areas across the Lebanese territories. Subsequently, the CDR released the tenders for the five service areas.

After the bids have been submitted and evaluated, the Ministry of Environment suggested the rejection of the bids results. On 25/08/2015, the Council of Ministers approved this suggestion (Decision No.1). The closure of Naameh landfill was forced as of 17/07/2015 which resulted in the accumulation of garbage in Beirut and Mount Lebanon.

On 27/08/2015, the Council of Ministers approved to commission the Ministry of Interior and Municipality to request from municipalities and unions of municipalities to announce their preparedness and plans to bear responsibility for the treatment of solid residential waste, each within its geographical jurisdiction.

On 09/09/2015, the Council of Ministers backed Agriculture Minister's waste management plan which called for the decentralization of waste treatment, and the restoration of the role of local municipalities and unions of municipalities in handling garbage, and as a first phase, to take necessary measures to transfer the garbage piled up since the closure of the Naameh Landfill (i.e on 17/07/0215) as well as the generated waste, to many landfills that will be prepared for this purpose, for a period not exceeding 18 months. And after negotiations regarding the location of the sanitary landfills failed, the Council of Ministers decided on 21/12/2015 to export garbage and initially approved to contract out the 2 companies selected following the tender process, and emphasized the Council of Ministers' decision No. 55 of /01/09/2010 stipulating the use of waste-to-energy technology and mandating the CDR to prepare the tender document within a period not exceeding two months.

### Proportion of organic solid waste in Greater Beirut and in Lebanon



Whereas, the Council of Ministers approved by Decision No. (1) dated 12/03/2016 amended by Decision No. (1) dated 17/3/2016, to mandate the CDR to conduct the tender for the outsourcing of waste services and their associated facilities, and the outsourcing of studies and supervision over works, within a period of two months.

The distribution of waste services and their associated facilities has been distributed into five independent tenders related to the following projects:

- Project for the setup of a temporary sanitary landfill near the mouth of Al Ghadir River (with marine protection works).
- Project for the setup of a temporary sanitary landfill center in Bourj Hamoud area, Jdeide - Bouchrieh- Al Sadd (with marine protection works and treatment of the waste mountain).
- Project for the sorting and treatment of solid household waste for Beirut administrative areas and Mount Lebanon, excluding Byblos.
- Project for household solid waste collection and transport for the following two service areas (two independent bids):
  - 1 - Metn and Keserwan districts.
  - 2 - Baabda, Chouf and Aley districts.

#### **First: Regarding the status of each of the above-mentioned projects:**

- 1- Project for the setup of a temporary sanitary landfill near the mouth of Al Ghadir River:

- On 22/07/2016, the CDR signed with "Al Jihad Group for Commerce and Contracting" Contract No. 19682 related to the implementation of the project intended to setup a temporary landfill near the mouth of Al Ghadir River. On 25/07/2016, the above-mentioned contractor was instructed to commence the implementation of the marine protection works observed in this project. And on 25/08/2016, the contractor was instructed to commence landfilling works.

- On 16/08/2016, the CDR signed with the merger group "Dar Al-Handasah Nazih Taleb & Partners (SES)" Contract No. 19697 related to the supervision over the implementation of the project for the setup of a temporary sanitary landfill near the mouth of Al Ghadir River.

- On 02/12/2016, the CDR signed with the technical inspection bureau "Socotec" Contract No. 19750 related to the provision of technical supervision services over the project for the setup of a temporary sanitary landfill near the mouth of Al Ghadir River.

- The capacity of the landfill is 1,000,000 tons of waste.

## **2- Project for the setup of a temporary sanitary landfill station in Bourj Hammoud area, Jdeide - Bouchrieh- Al Sadd:**

- On 03/08/2016, the CDR signed with “Khoury Contracting Company LLC”, Contract No. 19687 related to the implementation of the project for the setup of a temporary sanitary landfill center in Bourj Hamoud-Jdeide - Bouchrieh- Al Sadd, noting that on 11/08/2016 the contractor was instructed to start the implementation of the maritime protection works observed in the scope of this project. Also on 08 /10/2016, instructions were given to start landfilling works.
- On 05/09/2016, the CDR signed with the consultant “Rafik Al-Khoury and Partners”, Contract No. 19702 related to the supervision over the implementation of the project for the setup of a temporary landfill in Bourj Hamoud- Jdeide – Bouchrieh – Al Sadd.
- On 05/12/2016, the CDR signed with the technical inspection bureau “Apave”, Contract No. 19751 related to the provision of technical inspection services with regard to the project for the setup of a temporary landfill in Bourj Hammoud- Jdeide- Bouchrieh- Al Sadd.
- The capacity of the landfill is 1,250,000 tons of waste.

### **Notes on the sanitary landfill contracts:**

In this context, it is worth noting that the Government’s plan adopted in March 2016 was based on the fact that it was a transitional four year period (which is the timeline required for the completion of the sustainable plan if approved) and that the quantities required to be landfilled during the four-year period were estimated at around 3 million tons distributed on three sanitary landfills (Al Ghadir, Bourj Hamoud - Jdeide, and a third site servicing the Chouf, Aley and part of Baabda). Back then, the ministerial committee estimated this amount (i.e 3 million tons to be landfilled within four years) on the basis that some municipalities and federations would implement their decentralized projects and exit the centralized plan.

In fact, the Council of Ministers has not yet decided on the third site of sanitary landfill, and municipalities and federation of municipalities have not withdrawn from the centralized plan, which has resulted in the use of Al-Ghadir and Bourj Hamoud-Jdeide, at a higher capacity than the capacity noted in the plan.

## **3- Project for the sorting and treatment of solid household waste for Beirut administrative areas and Mount Lebanon, excluding Byblos:**

- On 23/09/2016, the CDR signed with the merger group “Al-Jihad Group for Commerce and Contracting/ SORIKO, Contract No. 19706, related to the sorting and treatment of solid household waste for Beirut and Mount Lebanon (excluding Byblos), knowing that this project’s works started on 01/01/2017.
- The CDR Board of Directors approved the assignment of the consultant Laceco to supervise the implementation of the project for the sorting and treatment of solid household waste for the areas of Beirut and Mount Lebanon (excluding Byblos).

## **4- Project for household solid waste collection and transport:**

- On 14/12/2016, the CDR signed with the merger group “Aramco/Altas” Contract No. 19765, related to the collection and transportation of solid household waste in the districts of Metn and Keserwan (Lot 1), and this project’s works started on 15/05/2017.
- On 03/01/2017, the CDR signed with the merger group “Mouawad-Edde/SORIKO” Contract No. 19772, related to the collection and transportation of solid household waste in the districts of Baabda, Chouf and Aley

(Lot 2), and this project's works started on 04/06/2017.

-The CDR's Board of Directors, at the request of the Municipality of Beirut, agreed to extend the term of the contract signed with Sukleen for the cleaning, collection and transportation of solid household waste within Beirut administrative area until April 2018, a date on which the Municipality of Beirut expects to be able to outsource the sweeping, collection and transportation of solid waste within its area.

**Second: Regarding the future projects:**

The Council of Ministers is expected to discuss in the beginning of 2018 the expansion of the new Al-Ghadir and Bourj Hamoud dumps, the modernization of the sorting facilities in Amroussieh and Qarantina, and the construction of a new plant in Al-Ghadir dumpsite for waste treatment. The Council of Ministers is also expected to take a decision regarding the adequate sites for the construction of a thermal decomposition plant/plants, knowing that the Terms of Reference related to these plants was approved by the Council of Ministers.

## Agriculture Sector

### Overview of the Agriculture Sector

#### Current situation of the agricultural sector

The agricultural sector in Lebanon relies upon individual initiatives under a liberal and open economic system. It accounts for 4% of the national income and 6% of the national labor and may reach 25% in some rural areas, where it contributes up to 80% of the GDP.

The agricultural sector has changed drastically over the last three decades:

- The number of agricultural holdings increased by 36% to reach 195 thousand agricultural investors; the agriculture constitutes a key income source in rural areas for over 200 thousand families, and thus contributes to rural development and mitigation of urban expansion;
- The size of irrigated lands increased by 155% to 142 thousand hectares out of 277 thousand hectares of cultivated lands;
- The fragmentation of agricultural lands, whereby the size of 75% of agricultural areas does not exceed 1 hectare and represent only 20% of the total cultivated area;
- Agriculture also affects natural resources such as water, forests and biological diversity depending on the agricultural practices used and their observance of sustainable development;
- The agricultural sector is the largest user of water, with irrigation water needs estimated at 810 million cubic meters. Thus, agriculture consumes 85% of the available water resources. The growing demand for water places additional pressure on irrigated agriculture, leading to an increase in abandoned land due to lack of water or causing less investment opportunities and less agricultural profits for smallholders;
- The agricultural sector, though contributing to only 6.3% of the GDP, represents 17% of the value of exports, and constitutes either the sole source of income or an additional source of income for a large portion of the Lebanese rural population.

The Lebanese agricultural production is mainly characterized by high production costs and limited competitiveness, with a long-standing openness to global markets strengthened by trade agreements.

Nevertheless, Lebanon's geographical location and its climate and crop diversification remain a major strength if only the country can seize available opportunities, make rational use of its natural resources – water specifically – overcome the obstacles limiting its competitiveness and preserve the environment.

#### Main Challenges of the Agriculture Sector

There are two types of agriculture in Lebanon: a) market-oriented agriculture, which is generally efficient, modern, relies on adequate financial resources for investment and exploits every potential profit. This type of agriculture is pursued in around 35 thousand farming units and covers about 25% of total agricultural holdings. It is based on the integration of pre-production and post-production agricultural activities and on openness to foreign markets and b) agriculture mainly devoted to the preservation of cultural and family heritage. It is practiced in smallholdings with no investment or profit opportunities and is considered as supplemental income and for own use. Most rural farmers practice this type of agriculture.

It is therefore important to distinguish between means intended to support the rural community, and those destined for the economic activation of the agricultural sector which can target farms able to respond effectively. Agricultural markets however are unstable and have an adverse effect on farmers' income due to the weakness and lack of transparency of marketing operations on one hand and to marketing policies of agribusiness operators that are not usually in the farmer's interest on the other hand. Therefore, structures for three types of markets should be established: (1) a local market for fresh produce, (2) a market for products intended for

processing, (3) a market for fresh agricultural products and processed products intended for export.

The agricultural and rural cooperative movement is characterized by a lack of transparency and a disparate application of laws and is thus far from the desired goals of collaborative work.

Another disadvantageous aspect of the agricultural sector is the absence of the government's active role in keeping abreast of technical breakthroughs in agricultural research, training and extension, and the absence of a participatory approach to secure the ownership and commitment of the different administrations involved in the agricultural sector. Similarly, the agricultural technical and marketing information is insufficient despite some achievements made within the framework of the "Assistance to Agricultural Census" project, and the support provided by IDAL to regulate the production intended for export under "Export Plus", a national agricultural export support program.

Additionally, in the upcoming years the growing water demand will require (1) securing additional water sources by building dams, lakes and water storage facilities, (2) rehabilitating and upgrading surface water and groundwater facilities, and (3) regulating water use to make it more efficient, coupled with an adequate legislative framework.

The burden of the Israeli July 2006 war and the repercussions of the Syrian crisis took a toll on all sectors of the Lebanese economy and the agricultural sector was one of the hardest-hit, because it was already facing difficulties marketing its produce. This additional stress caused heavy losses that exhausted agricultural laborers and exacerbated the Lebanese farmers' frustration.

**The main challenges can be summarized as follows:**

- Agricultural modernization, higher productivity, better efficiency and competitiveness of production chains for main crops amid the holdings' fragmentation, small size and weak agricultural and marketing infrastructure.
- Modernization of the sanitary and phytosanitary standards in compliance with international standards, to facilitate their entry to foreign markets under the umbrella of free international trade.
- Ensuring the availability of enough safe food supplies and enhancing food security amid volatile food prices.
- Attracting youth to work and invest in agriculture, increasing employment and income in rural areas and reducing migration and rural displacement while achieving an integrated rural development.
- Ensuring sustainable management and use of natural resources (land, forests, water, genetic resources, fisheries ...) under climate change, land degradation, overgrazing, inappropriate cultivation patterns, overuse of forest resources and over-exploitation of vulnerable fisheries resources.
- Putting up with the repercussions of the Syrian crisis on the agriculture, which constitutes additional pressure in terms of competition for jobs, and the creation of export outlets for agricultural products as an alternative to land ports, which led to a significant increase in the cost of export and a decline in the quantities and values of agricultural exports; Supervision of land borders to control animal diseases and transboundary pests, in addition to the shift of the capitals of organizations and donor countries from agricultural investments to relief and shelter programs for the displaced.

**A Vision for the Future**

Addressing the future growing water needs necessitates an integrated development strategy to exploit available water resources, that is directed towards rehabilitating the existing water facilities, finding additional water sources, building dams and lakes, rationalizing water use, and applying good water management, maintenance and operation techniques.

The implementation of irrigation projects will increase the area of irrigated lands to 36 to 50 thousand hectares in the next thirty years, which will increase the agricultural production and improve farmers' income. It all depends on the competitiveness of agricultural products in terms of production and marketing factors e.g.1) selecting processed agricultural products that have an added value 2) ensuring continuous, timely and enough market supply of quality products, and 3) considering the development of investable farming units.

Since technical, statistical and marketing data play a pivotal role in agricultural development, it is expected that management facilities and professional organizations will attach a great importance to the creation of an information system that allows all actors involved in the agriculture sector - namely farmers- to obtain the information they need in a timely fashion.

In the future the Lebanese government will have to develop strategies and action plans, coupled with a supportive regulatory and legislative framework, and create an efficient monitoring and evaluation mechanism in consultation with the private sector stakeholders.

In this context, the 2010-2014 strategy of the Ministry of Agriculture focused on the main sectors with high growth potential (such as olives, grapes, certified seeds, flowers, organic farming and fishing industry), and on projects aimed at modernizing production and exports chains. The strategy also placed an emphasis on the modernization of laws that regulate the exploitation of agricultural lands, the laws governing quality assurance and quality control, as well as the laws regulating the activities of agricultural and marketing companies, with due regard to the importance of agricultural extension at all levels and across all agricultural areas, in coordination with local authorities.

On another note, rural development has become necessary for balanced development, and is centered on integrated anti-poverty programs that take into consideration the particularities of rural areas, target social sectors development, provide minimum living standards and create job opportunities. All these factors combined necessitate a) an integrated comprehensive plan that works towards the preservation of the environment and the natural resources in synergy with the stakeholders engaged in this field, and b) a collaborative and participatory approach with local civil communities.

Additionally, the Ministry of Agriculture launched a new strategy for the years 2015-2019, that intends to achieve the following results:

- Increasing public expenditure on agriculture (budget of the Ministry of Agriculture for 2011: US\$ 58.7 million) as a percentage of the total national expenditure (US\$ 11.7 billion in 2011) from 0.5% to 0.7% in 2019;
- Increasing the contribution of agriculture to GDP from 4% in 2011 to 6% in 2019;
- Increasing agricultural production to US\$3 billion in 2019 (2.36 in 2011), thus achieving an annual rise of 3.4%;
- Decreasing the annual deficit in the trade balance between imports and exports of agricultural and food products by increasing the proportion of exports to imports from 20% over the past five years to 23% in 2019 (3/13);
- Achieving stability and non-regression of farmers income;
- Decreasing the proportion of hospitalizations caused by food poisoning;
- Increasing the percentage of samples analyzed in substations from 10% to 25% in 2019;
- Increasing the annual growth rate of household income derived from aquaculture and agricultural activity in rural areas;
- Rising rural population density;
- Rising the proportion of the labor force working in agriculture;
- Rising expenditures on the implementation of plans to promote sustainable management of natural resources within the budget of the Ministry of Agriculture;
- Increasing the number of legislations governing the sustainable management of natural resources.

#### **Main achievements until 2017**

The CDR initiated the implementation of agricultural projects that have been prepared over the past years within the scope of sectoral development programs such as the National Emergency Rehabilitation Plan (NERP), in collaboration with the concerned ministries.

Before putting the agricultural strategy in place, the CDR implemented urgent projects that were likely to contribute to the development of the agriculture and irrigation infrastructure, in particular the rehabilitation of agricultural schools (Fanar, Ghazir, Abdeh, Baaqleen, Nasriyet Rizk and the Kfarshima silk factory) through a

loan secured by the Saudi Fund for Development (SFD).

In view of the Ministry of Agriculture's need for technical assistance in conducting sectoral studies and agricultural surveys, the CDR secured an EU grant to finance and implement a project intended to support agricultural planning. As a result, the key elements and the master plan of the agricultural policy were set out, in coordination with the "Assistance to the Agricultural Census" project implemented by the CDR under a contract signed with the FAO and partially funded by a World Bank loan. The project resulted in the creation of an agricultural strategy and a five-year agenda for the Ministry of Agriculture (2005-2009).

Subsequently, within the framework of the EU-funded Agriculture and Rural Development Program (ARDP) implemented by the Lebanese Ministry of Agriculture, a new Ministry of Agriculture strategy was set for the years 2015-2019. This strategy shaped the Ministry's vision which intends to develop an agricultural sector that a) contributes to food security, including food safety, b) alleviates poverty and reduces displacement and migration and c) creates jobs and promotes rational use of natural resources. The vision also seeks to achieve the following objectives: a) to provide safe and quality food, b) to promote the contribution of agriculture to economic and social development and c) to enhance the sustainable management of natural and genetic resources.

The strategy of the Ministry of Agriculture is centered around eight tracks directed namely towards improving the safety and quality of local produce and imported foods, increasing the productivity and competitiveness of the Lebanese agricultural products and promoting good governance and sustainable investment of natural resources. The strategy also intends to promote agricultural extension and education, agricultural scientific research and laboratory work, to strengthen the capacity of the Ministry of Agriculture, to develop the cooperative and syndical sector, and to address the climate change challenges.

As for irrigation, around 27 thousand hectares of agricultural lands were rehabilitated through a World Bank's loan allocated for the rehabilitation of irrigation projects in Qasimiya (3600 ha), West Bekaa (2000 ha), Yammouneh (4500 ha), Danniyeh (4400 ha), Akkar el Bared (1500 ha) in addition to medium and small projects in the North and Mount Lebanon (7500 ha) and in the South (3200 ha). This loan also served to finance the capacity building of the Ministry of Hydraulic and Electric Resources and the Litani River Authority, and to provide vehicles, equipment, instruments, advisory contracts, training and studies that facilitated the implementation of these projects. Part of the advisory tasks pertaining to the "Canal 800 Project" aimed at transporting water from the Litani River to the South of Lebanon to be used in irrigation and drinking water supply- Phase I., was completed.

Additionally, the CDR contributed to securing foreign funds to implement the "Agricultural Infrastructure Rehabilitation" project as part of the Green Plan/Ministry of Agriculture, which includes land reclamation, construction and rehabilitation of agricultural roads and retaining walls. The CDR also appropriated funds from its annual budget to the project on the "Rehabilitation of Livestock Production" for smallholders in the Bekaa.

The CDR also participated, through liaison committees, in the implementation of several projects, among which the Agricultural Support Project falling under the Italian/Lebanese Protocol (1997) and (1998-2000) signed with the CDR, of which a part was allocated to the Baalback- Hermel Agricultural Development Project and to the Certified Plant Production project.

The CDR also followed up on several projects including the Lebanon Olive Oil Project in marginalized areas implemented with the assistance of the Mediterranean Agronomic Institute of Bari, through a grant awarded by the Italian government.

Moreover, a loan from the International Fund for Agricultural Development (IFAD) financed the implementation of projects aiming at building the capacities of the Ministry of Agriculture and its affiliated institutions (the Green Plan and the Agricultural Research Center). In this regard contracts were signed a) to procure the vehicles and necessary equipment and instruments needed by the said projects, b) to rehabilitate agricultural

extension centers in Sour and Abdeh, and c) to rehabilitate and equip the laboratories and greenhouses of the research institutes of Sour, Fanar and Tal Amara. Also, technical assistance, studies, training and maintenance necessary for these institutions were provided through advisory services contracts.

Also, through the IFAD loan, agricultural extension services were provided across all areas of irrigated farming, through advisory contracts signed with NGOs, as well as the construction of small mountain lakes in locations specified by the Green Plan in Bcharre, Mechmech, Bkaasfreen, Bkoufa, Hermel, Deir el Ahmar and Kfarmishki. As for the mountain lakes already constructed by the CDR through the IFAD loan, all related works concerning lakes in Bkaasfreen (Minieh-Danniyeh Caza) and the lake of Bkoufa (Zgharta Caza) were completed. Concerning the lake of Mechmech (AkkarCaza), the CDR conducted the study related to the necessary repair works.

During 2012 as well, the construction of an irrigation line in Kham was completed, in addition to the construction of a rainwater drainage network in Nabatiyeh, rehabilitation of a water lake in BintJbeil (Nabatiyeh District), and construction of agricultural roads in Aarkoub, Yohmor and Taibeh (Nabatiyeh District). The CDR had initiated these works in 2010 under an EU grant (Grant ENP/2007/018-882).

Furthermore, the CDR continued to provide oversight over the implementation of the Water Development Project in Marjeyoun that has been officially launched in mid May 2010. This project prepared the infrastructure and facilitated the installation of an irrigation distribution system in the northern part of Marjeyoun, into which water will be supplied from Canal 800. The project also conducted trainings on modern irrigation techniques and cropping patterns that have socio-economic impacts. The project targets 522 hectares and is expected to benefit 1259 farmers in the area. This initiative is funded by the Government of Spain through the "Lebanese Recovery Fund" established after the July 2006 War and managed by the United Nations Development Program (UNDP) in close collaboration with the Litani River Authority and the Association of Friends of Ibrahim Abed Al Aal (AFIAL).

#### **Regarding the Canal 800 Project aiming at transporting water from the Litani River to the South of Lebanon, for irrigation and drinking purposes– Phase I:**

- The CDR awarded a contract to theLahmeyerInt.GmbH/JBJ Gauff/ingenieur/D.A.H "Shair& Partners" group to complete the implementing studies of all contracts. The group also provided technical assistance in awarding the contract related to the execution of works. After eliminating the administrative barriers faced by the project, the final draft of the contract was approved by the Arab Fund and the group regarding the supervision of the works execution until 2017.
- In 2012, the CDR awarded the implementation of the project to Kharafi/Veziroglu/Guris until 2017.
- Also, in 2012, the CDR completed the contract related to the provision of institutional support and technical assistance to the Litani River Authority to provide oversight over the project that has commenced in 2007.
- Moreover, the CDR launched the implementation of the "Local Development Project in Northern Lebanon" ADELNORD, on the date of signature of its financing agreement on 06/07/2009. This project is funded by a grant from the EU delegation to Lebanon.
- As an initial phase, the CDR sought the assistance of an EU delegation of technical experts (Framework Agreement I and II) to identify a list of priority projects related to agricultural infrastructure and prepare the social development component of the project and its requirements. In a second phase, the CDR signed a technical assistance contract with the merger group (GFA-ELARD) on 18/10/2010 for a period of 33 months. The technical assistance staff continued the implementation of the project's agricultural and social components under the supervision of the CDR.

It is worth mentioning that the technical assistance staff operates from a MoA's office in Abdeh in the region of Akkar, according to a Memorandum of Understanding signed between the CDR and the MoA, stipulating that the latter puts a part of its Abdeh office under the project's disposition. In return, the project committed to rehabilitate and equip the building in order to allow its technical staff to implement the project's activities and

constantly interact with local authorities.

The CDR also appointed a field officer who is present daily at the project station in Abdeh, to oversee the management of the project, under the direct guidance of the CDR.

Within the framework of the same project, the CDR awarded in 2011 the feasibility studies and the detailed designs related to the infrastructure component, which includes the repair of agricultural roads, as well as the repair and renovation of irrigation channels and the construction of water collection lakes. These projects were planned in the Framework Agreement I and examined by the technical assistance staff; these projects target all rural areas situated 400m above sea-level in the Akkar District as well as the mountainous areas of the Cazas of Hermel and Danniyeh, namely: Akroum, WadiKhaled, Kobayat, Dreib, Joumeh, Al-Qayteh and Al-Jurd, Hermel and Danniyeh.

With regard to the award of contracts for feasibility studies and supervision tasks, the projects were merged into 6 groups, each including a list of agricultural projects, whereby group No.6 consists only of preparation of detailed studies and supervision of agricultural roads repair and renovation projects. Whereas groups 1 to 5 include the preparation of feasibility studies as a preliminary step, and the preparation of detailed studies and supervision of construction of agricultural roads, irrigation canals and hill lakes as a second step, in all the project targeted areas.

In 2012, feasibility studies and detailed plans were completed and handed over to the CDR.

Also, in 2012, the CDR awarded the works for the infrastructure component composed of 6 groups of projects aimed at rehabilitating agricultural roads and irrigation canals and constructing water collection lakes to a group of contractors after releasing calls for tenders in due form of law and in accordance with the EU delegation norms. Also, the CDR extended the contracts awarded to the consultants to design the detailed plans for the supervision of implementation works in various areas covered by the project.

In 2015, the works of supervision tasks over the execution works in different areas covered by the project were handed over to the CDR. Also, the CDR started receiving the hand-over of works of the tasks of infrastructure component composed of six project groups to repair agricultural roads, as well as the repair and renovation of irrigation channels and the construction of water collection lakes.

As for the local development component of the ADELNORD project, nine village clusters were identified in 2011 distributed across the project target areas. The elaboration of a Local Development Plan for each cluster has been initiated through a participatory approach between local authorities and civil society organizations, with the support of the ADELNORD technical assistance team and under the supervision of the Economic and Social Fund for Development (ESFD).

In 2012, Local Developments Plans were completed for the village clusters, and culminated in nine socio-economic development projects that respond to the needs of rural areas in nine clusters distributed across the project targeted areas and summarized as follow:

| Cluster       | Proposed Project   |
|---------------|--|
| Fnaideq       | - Construction of a waste treatment station  |
| Mashta Hassan | - Provision of equipment to a health center  |
| Hrar          | - Rehabilitation of irrigation canals<br>- Provision of equipment to a vocational training center<br>- Creation of a socio- cultural municipal complex |

|                    |   |
|--------------------|---|
| Bait Younes        | <ul style="list-style-type: none"> <li>- Rehabilitation of irrigation canals</li> <li>- Purchase of waste containers and waste collection vehicles</li> </ul>   |
| Akkar El Atika     | <ul style="list-style-type: none"> <li>- Installation of an integrated system for sewage treatment</li> </ul>   |
| WadiKhaled         | <ul style="list-style-type: none"> <li>- Provision of equipment and service improvement at Al Makased Health Center</li> <li>- Provision of school equipment and improvement of the academic and vocational education</li> </ul>  |
| Kfarbnin –Danniyeh | <ul style="list-style-type: none"> <li>- Rehabilitation of potable and irrigation water network</li> <li>- Provision of equipment to a medical center</li> <li>- Provision of a school playground</li> <li>- Development of capabilities and qualifications of the civil societies in the region</li> </ul> |
| South Hermel       | <ul style="list-style-type: none"> <li>- Drilling wells, rehabilitation of networks and storing potable water</li> <li>- Provision of support to agricultural cooperatives</li> </ul>   |
| North Hermel       | <ul style="list-style-type: none"> <li>- Drilling wells, rehabilitation of networks and storing potable water</li> </ul>  |

Thereafter, contracts were signed between the CDR and each cluster represented by official local actors to implement these nine developmental, economic and social projects. The CDR followed up on their execution under the supervision of the ESFD.

These nine projects have been handed over to the CDR since the year 2015.

The environment component of the ADELNORD Project:

In the context of setting out the requirements (terms of reference) related to the development of a Sustainable Strategic Plan for the Cazas of Akkar, Hermel and Danniyeh, the ADELNORD project - in coordination with the Ministry of Interior and Municipalities, and in cooperation with the public administrations involved in the development sector - launched an initiative to establish a standard methodology for regional development plan studies, after several donors expressed their readiness to finance regional development plans studies.

In 2014, ADELNORD started to put in place the Strategic Sustainable Regional Development Plan for Akkar jointly with a team of subject matter experts in environmental sciences, economics, urban planning and social development, assigned by the technical assistance (GFA –ELARD), in collaboration and consultation with the concerned local authorities. The final draft of this plan was completed.

And as part of the technical assistance provided for the establishment of a national park in the mountainous areas of Akkar, the ADELNORD project agreed with the Ministry of Environment to set forth the requirements to award a technical study on the establishment and management of regulated natural reserves in Lebanon as a preparatory step for the establishment of a national park in Akkar. In 2012, as part of ADELNORD's activities, the said technical study was initiated in close cooperation with the Ministry of Environment. The study resulted in a detailed technical report and a draft law on natural reserves, which have been presented to the Ministry of Environment for review and approval.

In 2013, the Ministry of Environment approved the above-mentioned draft law on natural reserves prepared by the CDR and thereafter it was ratified by the concerned parliamentary committees. Moreover, in 2014 the CDR completed through ADELNORD the draft implementing decree of the Law on Natural Reserves and presented it to the Ministry of Environment.

Within the context of fire suppression and forest protection and management, ADELNORD initiated in 2012 as a first phase the preparation of two management plans for the forests of Andkit-Akkar and Safira-Danniyeh,

that would culminate in the elaboration of the terms of reference relating to forest management including pruning, in close collaboration with the Ministry of Agriculture. In 2013, the CDR presented to the Ministry of Agriculture a final report encompassing two management plans and two terms of reference related to the forests of Andkit-Akkar and Safira-Danniyeh, awaiting the approval of the Ministry of Agriculture.

Upon the request of the Ministry of Agriculture, the CDR completed Phase II of the mission, which includes:

- Implementation of a training program for forests guards and local activists.
- Procurement of private forest management equipment and accessories.
- Suggestion of a follow-up and monitoring mechanism for the implementation of two management plans for the forests of Andkit-Akkar and Safira-Danniyeh.

Also, contracts were signed with suppliers to purchase communication and advertising materials within the framework of ADELNORD Project, through the release of a call for tenders in accordance with applicable laws and under the supervision and upon the approval of the EU Delegation.

The CDR had also started to secure a sum of US\$ 8.4 million of the OPEC loan to the benefit of the “Green Plan” in order to finance the Hilly Areas Sustainable Agricultural Development Project “HASAD” aiming at constructing hill lakes to promote agricultural development as an additional irrigation source during summer in poor rural areas where water is scarce. In this context:

- In 2014, the CDR signed a Memorandum of Understanding with the “Green Plan” regarding the implementation mechanism and the disbursement from the OPEC Fund for International Development (OFID) number 1337PB allocated for the implementation of this project.
- An agreement was reached with regard to the location of 20 hill lakes expected to be implemented as part of the project in the following areas: Bouday, Younin, Amiri al Moudwi, Barka, Al Zarazir, Ain Al Biniyeh, Nahle (Bekaa), Ayta Al Shaeb, Aytaroun, BaytLif, Chibaa, Kfarchouba, MajdelSelem (Nabatiyeh), Ehmej, Baadran, Kfarmata, Kornayel, Mechmech (Mount Lebanon), Karam Al Mohr (North), and Mounjez (Akkar).
- As a first phase, the execution and supervision works were awarded regarding 8 hill lakes: Bouday, Ain Al Biniyeh, Nahle (Bekaa), Ayta Al Shaeb, Aytaroun, BaytLif, Chibaa (Nabatiyeh), and Ehmej (Mount Lebanon).
- As a second phase, six new lakes were awarded in the following villages: Karm Al Mohr (North), Mounjez (Akkar), MajdelSelem (Nabatieh), Kfarchouba (Nabatieh) Younin, (Baalback), and Moudwi (Hermel).

The French Development Agency (AFD) expressed an interest in the National Reforestation Program to plant “40 Million Trees”, a national program that is prepared and implemented by the Ministry of Agriculture in cooperation with various local entities and donors, and that constitutes one of the main goals of the MoA’s current plan of action.

To that end, the AFD assigned a special delegation that developed an Aide Memoire to describe the current situation and identify the current related initiatives and major needs. In light of the findings of the Aide Memoire, a plan was presented to outline the scope of a term of reference aiming at preparing:

- Preliminary studies (Avant-Project Sommaire (APS))
- Detailed studies (Avant Project Detaille; APD)
- Tender document (Dossiers de Consultation des Entreprises; DCE)
- Socio-environmental impact assessments (Etudes d’impact Environnemental et Social ; EIES):

These studies will be conducted through the CDR in collaboration with the Ministry of Agriculture and with the financial assistance of the AFD.

Based on the above, the CDR in collaboration with the stakeholders in the Ministry of Agriculture and the AFD prepared the tender document of the above-mentioned studies within the framework of contributing to the

National Reforestation Program “40 Million Trees” funded by the AFD (EUR 300,000).

These services are two-phased:

- Phase 1: preparation of the Preliminary studies (Avant-Project Sommaire (APS)) and the Socio-environmental impact assessments (Etudes d’impact Environmental et Social (EIES)), with a maximum budget of EUR 150,000.
- Phase 2: preparation of the Detailed studies (Avant Projet Detaille (APD)) and the tender document (Dossiers de Consultation des Entreprises (DCE)), with a maximum budget of EUR 150,000, on an optional basis for the CDR. Phase 2 will kick off in the light of the findings of Phase 1.

A call for tenders was released to commission the studies and the contract was awarded to FRM France that will carry out this task jointly with ECOCENTRA AND ID Green Land Consulting.

On a different note, the CDR prepared the draft of the Sustainable Socio-economic Development of Lebanese Coastal Communities project, in close collaboration with the Ministry of Agriculture and the Italian Development Cooperation This project is intended to modernize the agricultural sector and the fisheries in five Lebanese Coastal cities.

#### **Work progress during 2017:**

Regarding the Canal 800 Project aiming at transporting water from the Litani River to the South of Lebanon for use in irrigation and in drinking water supply– Phase I, the execution of works by Kharafi/Veziroglu/Guris and their supervision by LahmeyerInt.GmbH/JBJ Gauff/ingenieur/D.A.H “Shair& Partners” Group were extended during 2017 until the end of 2018.

Currently, several EU funded agriculture and irrigation projects of municipal nature are underway, through “the Social Development Fund” and with the contribution of concerned municipalities especially in the South and Akkar regions.

In the framework of the “Technical Assistance to the local development support project in North Lebanon” ADELNORD, funded by grant n° ENPI/2008/019-623, the CDR will carry out the following:

- Follow through the coordination with the Ministry of Environment regarding the approval and enforcement of the draft implementing decree on natural reserves.
- Coordinate with MoA about the validation of the two management plans of the forests of Andkit in Akkar and Safira in Danniyeh, and the two terms of reference for forest management including pruning, in the framework of fire suppression and forest protection and management.

With regard to the Hilly Areas sustainable Agricultural Development Project “HASAD”, the CDR continued securing the necessary funds for the execution of eight hill lakes in each of the following areas: Bouday, Ain Al Binyeh, Nahle (Bekaa), Ayta Al Shaeb, Aytaroun, BaytLif, Chibaa, Kfarshouba and MajdelSelm (Nabatiyeh), Ehmej (Mount Lebanon), Karm el Mohr (North), Mounjez (Akkar), Younin and Moudwi (Baalbeck - Hermel). The CDR also followed through the project’s work progress in collaboration with the Green Project.

Regarding the Preliminary studies (Avant-Project Sommaire (APS)), the Detailed studies (Avant Project Detaille; APD)/Tender document (Dossiers de Consultation des Entreprises; DCE) and the Socio-environmental impact assessments (Etudes d’impact Environnemental et Social; EIES), related to the contribution to the national reforestation of 40 Million Tree Program which is funded by the AFD, the consultant tasks were modified so as enable the civil society organizations (CSOs) specialized in this sector to present proposals for Forestry Projects (Study and execution), in accordance with the terms of reference set out by FRMI/ECOCENTRA/ ID Green Land Consulting. These consultants provide support to the CSOs and assess their projects in close collaboration with the Ministry of Agriculture.

Subsequently, the CDR opened a call for proposals for CSOs. 19 projects were submitted and evaluated at stage one (pre-selection). 9 projects which best meet the requirements of this stage were shortlisted and qualified for stage two of proposal submission (final qualification), distributed as follows:

| Organization                               | Beneficiary Village/Town        | Caza/Governorate         |
|--|---------------------------------|--------------------------|
| ADFC (Rashaya)                             | Rashaya                         | Rashaya/Bekaa            |
| ADFC (Chmestar)                            | Chmestar                        | Baalbeck/Baalbeck Hermel |
| Ehden Natural Reserve                      | Ehden                           | Zgharta/North Lebanon    |
| LRI (Bcharre)                              | Bcharre                         | Bcharre/North Lebanon    |
| LRI (West Bekaa)                           | Qaraoun, Baaloul, Majdel Balhis | West Bekaa/Bekaa         |
| Jouzour Loubnan                            | Damour                          | Shouf/Mount Lebanon      |
| Al-Shouf Cedar Nature Reserve              | Niha, Aitanit                   | Shouf/Mount Lebanon      |
| SEEDS in partnership with Gruppo-Silvestri | Sultan Yaacoub, Manar, Bireh    | West Bekaa/Rashaya/Bekaa |
| Balamand University                        | Tannourine                      | Batroun/North Lebanon    |

At stage Two: The CSOs eligible for stage two were asked to submit environmental impact studies, detailed studies and detailed cost estimates of their proposed projects, with the support of the consultants FRMI/ECOCENTRA/ID Green Land Consulting.

It is noteworthy that this project serves as a prelude to the “PARSIFAL” program, expected to be funded by the AFD through a 15M€ grant and composed of three components:

- 1- Forestry component: execution of the forestry projects that pass the final qualification process based on their detailed studies and environmental studies, by the CSOs and the municipalities.
2. Infrastructure component: the consultants FRMI/ECOCENTRA/ID Green Land Consulting will identify rural infrastructure projects based on requests submitted to the Green Project, the Ministry of Agriculture and the CDR with regard to areas affected by the Syrian crisis and the presence of displaced persons, particularly in the Bekaa and Akkar governorates.
3. Technical Support, Training and Other Component: the consultants FRMI/ ECOCENTRA/ID Green Land Consulting are tasked to develop a general framework for this component, namely the organizational structure and tasks of technical support, training needs and institutional capacity building.

In this context, the consultants started the preparation of a comprehensive final document for this program in cooperation with all stakeholders, namely the CDR, the Ministry of Agriculture and the AFD.

Additionally, the CDR continued to coordinate with the Ministry of Agriculture and the Italian Development Cooperation to develop a final draft of the Sustainable Socio-Economic Development of Lebanese Coastal Communities project, devoted to the modernization of the Agriculture sector and fisheries in some Lebanese coastal cities. In this context, the CDR signed a cooperation agreement with the International Center for Advanced Mediterranean Agronomic Studies (CIHEAM- IAM Bari) to execute “the “Master Plan for the sustainable development of Lebanese coastal communities” financed by the Italian Agency for Development Cooperation (AICS) with an amount of EUR 490,531, and covers preparatory studies and technical support to identify specific sector interventions that will be subsequently implemented according to the recommendations of the Master Plan.

During 2017, The CDR signed an agreement with the Food and Agriculture Organisation of the United Nations (FAO) to implement a USD 1.5 million project entitled “Promotion of Good Agricultural Practices, Including Integrated Pest Management, to reduce agrochemical pollution in upper Litani basin”, funded by the World Bank for a period of 4 years. The project aims at reducing the Litani River and Qaraoun lake water pollution from agrochemicals by adopting sustainable crop production systems in the upper Litani basin through introduction and promotion of Good Agricultural Practices (GAP).

The CDR, through its participation in liaison committees, follows up on several projects implemented by the Ministry of Agriculture:

1. The committee to address the issue of prohibited crops and propose alternative crops in the Bekaa.
2. The National Committee on the development of efficient land use policies and improvement of living standards.
3. The National Committee to Combat Desertification, Climate Change, and Biodiversity.
4. The coordination committee for the “Economic and Social Development Project for Olive Producers in Poor Areas”.
5. The National Food Security Program committee in cooperation with the Food and Agriculture Organization of the United Nations (FAO).
6. The steering committee for the Hilly Areas Sustainable Agricultural Development Project “HASAD”.
7. The steering committee for the Lebanese Observatory for Agricultural Development.
8. The steering committee for the Coordination Project between the Ministry of Agriculture and Italy.
9. The steering committee for the project named “Strengthening Production and Marketing of Lebanese Agriculture”.
10. The coordination committee for the Agricultural and Rural Development Project (ARDP) funded by the European Union.
11. The national coordination committee for the United Nations Food and Agriculture Organization (FAO).

These committees provide insights into the major results of completed projects and planned activities as well as the problems and challenges encountered.

160 contracts totaling USD 46.1 million were signed in the agriculture sector between 1992 and end of 2017, of which 146 were completed and 14 are underway.

#### **Main projects under preparation for 2018**

In the context of the Hilly Areas Sustainable Agricultural Development project “HASAD”: The CDR will continue to provide oversight over the completion of works in fourteen hill lakes; the CDR will also continue to secure funding from the OPEC loan to award the contracts related to the remaining planned lakes in Barqa, Zrazir, Bqaa Safrin, Deir el Moukhaless, Qornayel and Qayqab, in close collaboration with the “Green Plan – .

In the framework of the “Technical Assistance to the Local Development Support Project in North Lebanon” ADELNORD, funded by grant n° ENPI/2008/019-623, the CDR will continue to:

- Coordinate with the Ministry of Environment about the approval and enforcement of the draft implementing decree on natural reserves.
- Coordinate with the Ministry of Agriculture about the validation of the two management plans of the forests of Andkit in Akkar and Safira in Danniyeh, and the two TORs for forest management including pruning, in the framework of fire suppression and forest protection and management.

As for the Canal 800 Project (Transportation of Litani River Water to the South of Lebanon) – Phase I:

- The CDR will continue implementing the project awarded to Kharafi/Veziroglu/Guris in 2012.
- The CDR will continue to supervise the contract related to the execution of the project works signed with the merger group LahmeyerInt.GmbH/JBJ Gauff/ingenieur/D.A.H “Shair& Partners.
- In 2018, the CDR will seek to award the Supervisory Control and Data Acquisition (SCADA) contract, with the technical assistance of the consultant and in agreement with the Arab Fund.

Phase II:

- The CDR will award the contract related to phase II studies which will commence in 2018 and end in 2019.

- The CDR will also seek to secure the necessary loan (approximately US\$ 300,000,000) to implement Phase II of the project, scheduled from 2019 to 2023, inclusive of supervision and works phases.

It is worth mentioning that the implementation of this project will result in providing 90 million m<sup>3</sup> annually by gravity irrigation for around 14,000 ha between the 800 m and 400 m levels of the Qaraoun Lake, in addition to providing 20 million m<sup>3</sup> annually of drinking water. The project is financed through two approved loans, the first provided by the Arab Fund for Economic and Social Development (AFESD) and the second by the Kuwait Fund for Arab Economic Development (KFAED) and the Lebanese Republic.

Concerning the locally funded project intended to restore the lake of Mechmech in Akkar, the CDR completed the tender document awaiting the launching of the tender process.

Within the framework of contributing to the National Reforestation Program “40 Million Trees”, and in the context of preparation for PARSIFAL which is funded by the AFD (EUR 15 million grant), the Consultants FRMI/ EOCENTRA/ID Green Land Consulting will perform the following tasks in 2018:

- 1- Forestry Component: Provide support to the civil society organizations and the concerned municipalities in the preparation of projects detailed studies and environmental studies. These studies will serve as basis for the final eligibility decision. The eligible projects will subsequently be implemented through PARSIFAL.
- 2- Infrastructure Component: Select infrastructure projects which best meet the technical and the socio-economic requirements based on a in-depth study and according to set criteria, in collaboration with the concerned departments and the funder.
- 3- Technical Support, Training and Other Component: Develop a general framework for this component, specifically the organizational structure and the tasks of technical support, identify training needs and build the capacity of institutions.
- 4- Complete a final comprehensive document for this program in cooperation with all stakeholders, namely the CDR and the AFD.

The CDR jointly with the International Center for Advanced Mediterranean Agronomic Studies (CIHEAM- IAM Bari) will seek to complete the final version of the “Master Plan for the sustainable development of Lebanese coastal communities” financed by the Italian Agency for Development Cooperation (AICS) with an amount of EUR 490,531, and to identify a series of projects centered around agriculture and fisheries in some coastal Lebanese cities, that will be subsequently implemented according to the recommendations of the Master Plan.

The CDR - jointly with the FAO and the Ministry of Agriculture - will continue to implement the Agreement on the Promotion of Good Agriculture Practices (Including Integrated Pest Management), within the framework of “Lake Qaraoun Pollution Prevention Project”, funded by the World Bank. The purpose of this project is to build the capacities of farmers, obtain field samples, and adopt integrated pest management in agriculture (specifically to reduce the total amount of agro-chemicals used by farmers).

The CDR will also continue to follow up on the works of the liaison committees with the Ministry of Agriculture, to monitor their different agricultural projects and get an insight of the main results of completed works, upcoming activities and the problems and challenges encountered.

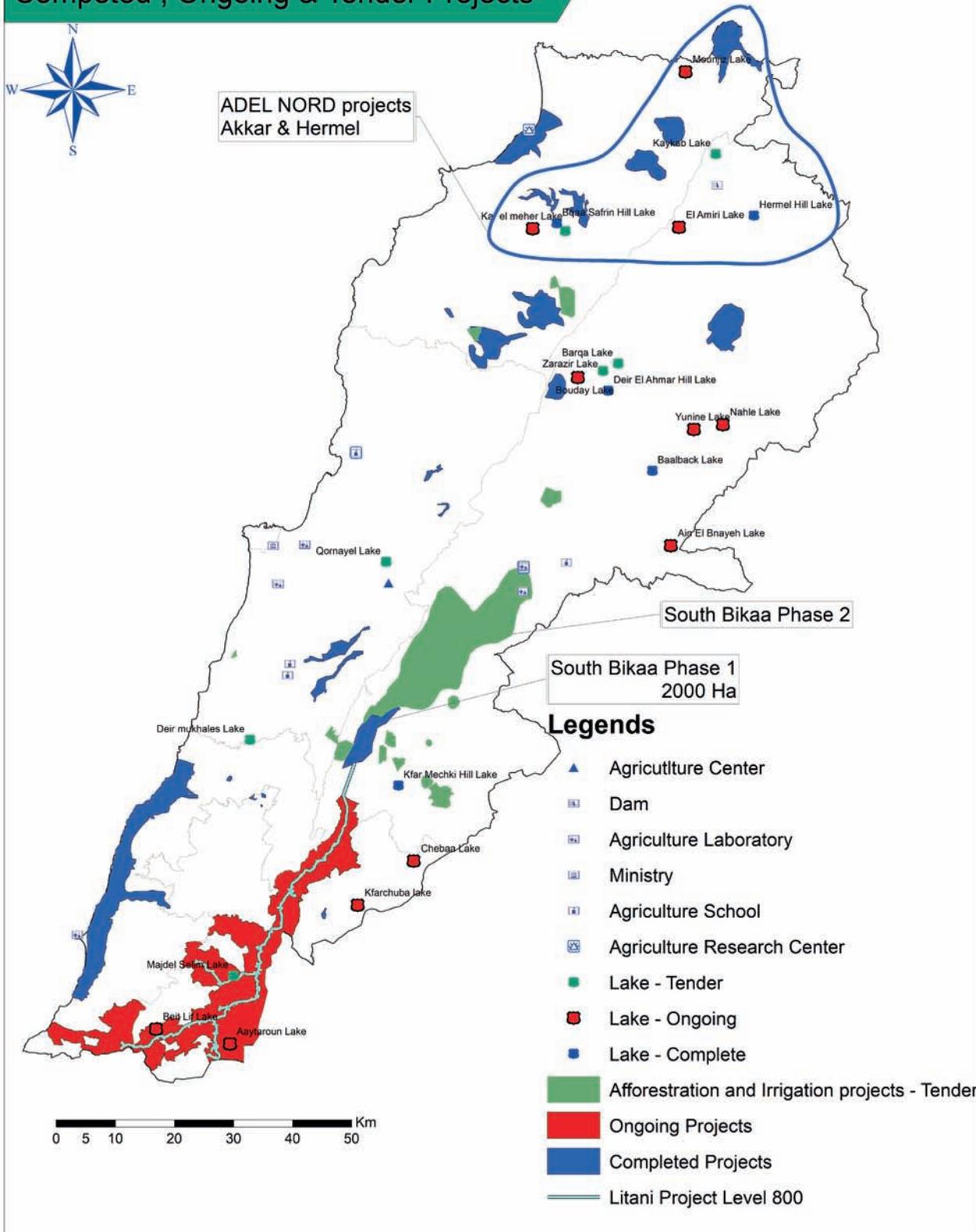
**Main Projects under preparation for 2018**

| Project  | Estimated value (US\$) | Source of Funding                               | Expected date to resume work | Scheduled completion |
|--|------------------------|---|------------------------------|----------------------|
| Restoration of the lake of Mechmech  | 500, 000               | CDR   | June 2018                    | September 2018       |
| Transportation of water from Litani River to the South of Lebanon for irrigation and drinking purposes– (Award of the Supervisory Control and Data Acquisition Contract SCADA) – Phase I | 8,000,000              | - AFESD<br>- KFAED<br>- The Republic of Lebanon | June 2018                    | June 2020            |
| Transportation of water from Litani River to the South of Lebanon for irrigation and drinking purposes (Canal 800) – Phase II: Studies   | 700,000,000            | - AFESD<br>- The Republic of Lebanon            | July 2018                    | July 2019            |
| Transportation of water from Litani River to the South of Lebanon for irrigation and drinking purposes (Canal 800) – Phase II: Supervision and Works                                     | 300,000,000            | Not available                                   | June 2019                    | July 2023            |
| PARSIFAL   | 15,000,000             | AFD   | November 2018                | November 2022        |
| Hilly Areas Sustainable Agriculture Development Project 'HASAD' (Construction of hill lakes in Barqa, Zrazir, Bqaa Safrin, Deir El Moukhaless, Qornayel, and Qayqab                      | 2859743                | OPEC Fund for International Development (OFID)  | September 2018               | September 2019       |

**Agricultural Lake**

# Agriculture & Irrigation

Competed , Ongoing & Tender Projects



## **Sovereign Services**

### **General Overview of the Sovereign Services Sector**

The Administration of the Council for Reconstruction and Development (CDR) aims at addressing the needs of the Lebanese public institutions focusing primarily on the construction of new government facilities and the improvement of existing facilities. Within this framework, the CDR plans and implements, construction, repair, maintenance and operation projects. This plan reflects the Lebanese government's desire to construct ministries and public administrations facilities on state-owned real property, with a view to decrease rental costs of buildings actually used by the Lebanese public institutions and to improve the administrative performance of such buildings.

### **Main projects completed within the reporting period (1992 – 2017)**

Up until 2014, a number of construction and facility improvement projects were planned, and completed. Three new governmental Sarays were constructed in Jezzine, Tebnine and Hermel. A Justice Palace was constructed in Saida. Two Qaiimaqamiya buildings were constructed in Minnieh and Sir el Dannieh. Also, a building for the Ministry of Finance in Aadliyah – Corniche el Nahr region was constructed. A showroom was added to the National Museum which underwent also enlargement and water treatment works.

In addition, the UNESCO Palace, the historic building of the Grand Saray of Beirut as well as several border crossings were renovated and repaired; Renovations and repairs were completed on the building for the Ministry of Media and Tourism in Sanayeh, the building of the Lebanese Embassy in London, as well as on a number of other government facilities including municipalities. These projects were completed at a total cost of US\$ 200.00 million. Preparatory work was initiated to conduct a study on the construction of a consolidated building for the Customs Administration at the Port of Beirut.

Work progress in 2017, regarding contracts signed before 2017

Among the current active projects, a number of urgent projects were completed on the border crossings in Aaboudiye – Bqaiya – Aarida – Masnaa; in Roumieh prison a new building was constructed, and a new court room was added; a new fruit and vegetable souk was constructed in Tripoli. The total budget allocated for these projects is US\$ 20.00 million.

### **Projects under preparation**

Studies are being developed to implement additional renovation and repair projects at the borders points in Masnaa, Aaboudiyeh, Aarida, and Bqaiya, and to add facilities to the Justice Palace of the city of Beirut. A study is also being developed to build a new facility for Basel Fleyhan Financial and Economic Institute. Other government construction and infrastructure studies in the pipeline: Construction of a big facility that will include the office of the Minister of State for Administrative Reform, the Civil Service Board and the Central Inspection; the construction of a new building for the Ministry of Foreign Affairs in Solidere, the construction of a new building complementing the existing facility of the Industrial Research Institute (IRI) in Hadath. In the studies pipeline also: the renovation and rehabilitation of the governmental Saray in Baabda; the maintenance and rehabilitation of the facility of the National Institute for Administration; the outsourcing of studies to build prisons across all Lebanese territories, Sarays in Halba, Baalback, Sour, a justice palace in Nabatiyeh and a pilot prison in Majdalia.

**Sovereign service projects (under preparation)**

| Project name  | Contract value (USD) | Funding Source   | Initiation Date | Scheduled Completion |
|---|----------------------|--|-----------------|----------------------|
| Study for site works execution at Halba Saray                                     | 174,000.00           | Lebanese Government  | February 2018   | February 2019        |
| Study for site works execution at Halba Saray                                     | 6,800,000            | Lebanese Government  | June 2019       | June 2021            |
| Study for site works execution at Baalback Saray                                  | 172,260              | Lebanese Government  | February 2018   | February 2019        |
| Execution of site works at Baalback Saray   | 6,800,000            | Lebanese Government  | June 2019       | August 2018          |
| Study for site works execution at Nabatiyeh Justice Palace                        | 174,000              | Lebanese Government  | January 2016    | February 2018        |
| Execution of site works at Nabatiyeh Justice Palace                               | 6,800,000            | Lebanese Government  | February 2018   | February 2021        |
| Execution of site works at Sour Saray   | 6,800,000            | Lebanese Government  | May 2019        | May 2021             |
| Construction of a building complex in shhim                                       | 5,000,000            | Lebanese Government  | March 2016      | August 2020          |
| Establishing a unified customs building on a land annexed to Beirut port          | 20,000,000           | Lebanese Government  | August 2018     | September 2021       |
| Renovation of customs building in Aarida  | 7,000,000            | Lebanese Government  | November 2018   | November 2020        |
| Renovation of customs building in Bqayaa  | 2,000,000            | Lebanese Government  | November 2020   | October 2021         |
| Renovation of customs building in Kaa   | 7,000,000            | Lebanese Government  | November 2019   | October 2021         |
| Rehabilitation of customs buildings in Aaboudiye                                  | 7,000,000            | Lebanese Government  | November 2018   | October 2021         |
| Construction of Bypass at Sheik Aiash for Trucks (common Lebanese Syrian borders) | 22,000,000           | Lebanese Government  | November 2018   | December 2020        |
| Rehabilitation of customs buildings in Sour                                       | 1,000,000            | Ministry of Public Works Budget pursuant to Decree 2002/7606 | November 2020   | November 2021        |

|   |            |                     |           |           |
|---|------------|---------------------|-----------|-----------|
| Construction of the Ministry of Foreign Affairs in "Solidere"   | 8,000,000  | Lebanese Government | June 2020 | June 2022 |
| Construction of Ministry of Finance building in Baabda  | 30,000,000 | Lebanese Government | June 2020 | June 2022 |
| Project to renovate the CDR building  | 800,000    | CDR Budget          | July 2018 | July 2019 |
| Renovation of the section rented out by the Ministry of Finance in property No. 1383 in the Port cadastral area | 1,000,000  | Lebanese Government | July 2018 | July 2019 |
| Construction of a prototype jail in Majdalia  | 60,000,000 | Lebanese Government | June 2019 | June 2023 |



**Jusitce Palace - Nabatiye**



Rehabilitation of Roumieh Prison



Government Buildings' Complex

## Funding of the Reconstruction Program

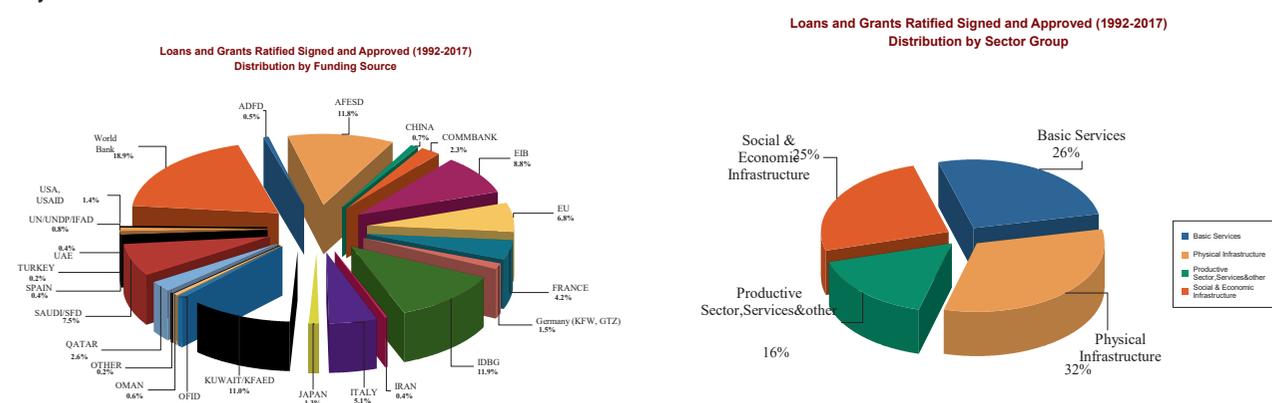
### Funds awarded

The funds awarded to the Reconstruction Program include loan agreements approved by the government and ratified by the Parliament and grant agreements enforced by governmental decrees. The total value of foreign funds (loans and grants) recorded between 1992 and end of 2017 reached US\$ 12,548 million (funding available to date), calculated at the exchange rates recorded at the end of 2017; the following table details out the total foreign funds recorded:

|                          | Grants | Loans | Total  |
|--------------------------|--------|-------|--------|
| Million USD <sup>1</sup> | 3,643  | 8,895 | 12,548 |
| % of total               | 29%    | 71%   | 100%   |

The Council for Development and Reconstruction (CDR) adopts a general policy to secure soft loans for social services sectors and commercial loans for high profitability sectors and projects (productive sectors). However, the CDR is not the only governmental body mandated to implement the Reconstruction Program, there are in fact other ministries and governmental administrations and institutions that contribute to the implementation of other parts of this Program.

**Awarded foreign funds by source:** Around 23 main foreign funding sources have contributed to the funding of the Reconstruction Program with an amount exceeding US\$20.00 million. Additionally, around 24 funding sources offered several grants across several phases of the Reconstruction Program. Chart (1) showcases the share of each of the funding sources which contributed to this program with an amount exceeding US\$20.00 million. It is worth noting that 11 main foreign funding sources have contributed to more than 90% of total foreign funds, specifically: the International Bank for Reconstruction and Development (IBRD) (18,9%), the Arab Fund for Economic and Social Development (AFSED) (11,8%), the Islamic Development Bank (IDB) (11,9%), Kuwait Government and the Kuwait Fund for Arab Economic Development (KFAED) (11%), the European Investment Bank (EIB) (8,8%), the Kingdom of Saudi Arabia and the Saudi Fund for Development (7,5%), the European Union (EU) (6,8%), the Republic of Italy (5,1%), the Republic of France (4,2%), Qatar (2,6%), Commercial banks (2,3%). The total value of the funds recorded reached US\$ 12,548 million, an increase of US\$ 698 million compared to the total value of funds recorded by the end of 2016. This increase is two-fold: the funds received during 2017, and the second fold is due to the difference in the currency exchange rates for some currencies especially for the Euro and the Kuwaiti Dinar and also to some Database Information System adjustments.



**Distribution of awarded foreign funds by sector:** Chart (2) details out the distribution of the total foreign funds recorded to date by main sectors. The share of foreign funds obtained by basic infrastructure sectors reached 32%, mainly covering electricity, telecommunications, and air, land, and maritime transportation. The share of social sectors amounted to 25%, covering education, public health, housing compensations, youth and sports, land use and environment. The share of basic services sectors stood at 26% distributed among potable water supply, wastewater and solid waste sectors. The productive sectors and other sectors such as agriculture, irrigation, industry, tourism, private sector services, local and central administration and other sectors, accounted for 16% of the foreign funds recorded.

### New Funds

The foreign funds obtained during 2017 reflect the efforts made by the CDR to translate foreign funds promises into awarded funds, knowing that in order for the funds to be definitively available they necessitate the completion of specific legal and administrative procedures to become effective<sup>2</sup>. The total value of foreign funds secured in 2017 reached around US\$ 477 million: US\$293 million in the form of loans and US\$ 184 million in the form of grants. Below is a summary of the main loan and grant agreements signed and ratified in 2017:

### World Bank (WB)

#### 1. Roads and Employment Project:

On 21/06/2017, the “Roads and Employment Project” agreement was signed with the world Bank, with a total value of US\$200 million (grant portion amounting to US\$45,4 million and soft loan portion amounting to US\$154,6 million). The loan agreement was submitted to the Parliament for approval, pursuant to decree no. 2365 of 13/02/2018.

#### 2. Greater Beirut Public Transport Project:

During 2017, preparations were made with the World Bank for an agreement intended to finance the Greater Beirut Public Transport for Persons Project with a value of US\$295 million within the framework of the Global Concessional Financing Facility (GCFF), consisting of an IBRD loan portion of US\$225.2 million and a grant portion of US\$69.8 million.

#### 3. Additional Financing for the Greater Beirut Potable Water Supply Project

During 2017, preparations were made with the World Bank for an additional financing agreement for Greater Beirut Potable Water Supply Project, with a value of US\$90 million.

### European Investment Bank (EIB)

#### 1. Modernization and Expansion of Waste Water Collection and Treatment in Saida

On 22/03/2018, an in-kind grant agreement with a value of €380,000 (US\$ 456,000) was signed to conduct a feasibility study for the project intended to modernize and expand the wastewater collection and treatment in Saida.

#### 2. Set up of infrastructure in three new industrial zones in Baalback Terbol – Koussaya and Qaa

On 04/04/2018, the Council of Ministers approved an agreement to co-finance 50% of the cost of this project, amounting to around €52 million (US\$ 62 million), in the form of a soft loan co-financed by a private-public partnership. The approximate value of the project is estimated at US\$118.6 million. The agreement was signed on 30/04/2018.

2. Excluding financial protocols and memoranda of understanding (MOUs) which always require additional financing agreements pertaining to the projects identified and approved in the protocols and MOUs.

### 3. Expansion of Al-Ghadir Waste Water Treatment Plant at Al-Ghadir River Drainage Basin and Rehabilitation of Networks in Al-Ghadir Basin

On 15/02/2018, the Council of Ministers approved a soft loan agreement to finance this project (which covers a part of Beirut City and its western southern suburbs), with a value of €68.5 million (US\$ 82 million). The agreement was signed on 28/02/2018.

### 4. Roads and Employment Project

Preparations are underway to co-finance the “Roads and Employment Project” with a total value of €168 million (US\$200 million), in the form of a soft loan.

### 5. Completion of Waste Water Networks in the Water Basin of Tripoli Treatment Plant

Preparations are underway for a draft loan agreement of a value of €74 million (US\$88 million) to co-finance this project.

## Islamic Development Bank (IDB)

### 1. Jabal Amel Water Project (Phase III)

On 08/03/2015, the Islamic Development Bank (IDB) approved to finance the Jabal Amel Water Project (Phase III), with an amount of US\$60,97 million. The agreement was signed on 16/03/2016, and the IDB declared its entry into force on 06/07/2017.

### 2. Reconstruction of Bir el Heith –Qartaba Road (Phase III) Project

On 26/10/2016 a financing agreement (istisna'a and wakala) was signed to finance the reconstruction of the Bir el Heith – Qartaba Road (Phase III) Project, with a value of US\$ 20.7 million. The Parliament ratified the agreement on 29/11/2017 and it entered into force on 03/01/2018

### 3. Greater Beirut Water Project (Bisri Dam)

During 2016, a financing agreement (istisna'a and wakala) was signed to finance the Greater Beirut Water Project (Bisri Dam). The IDB's contribution amounted to US\$128 million. The entry into force of this agreement was declared on 06/07/2017.

### 4. Completion and Modernization of Al Ghadir Waste Water Treatment Plant for the Collection and Treatment of Waste Water

A financing agreement (istisna'a and wakala) entered into force on 06/07/2017 to finance this Project. The IDB's contribution amounted to US\$ 87,5 million.

### 5. Southern Coastal Road Project (Burj Rahal – Sour)

On 24/08/2014, the Islamic Development Bank (IDB) approved to finance the Southern Coastal Road Project (Burj Rahal – Sour), with an amount of US\$26,7 million. The financing agreement (istisna'a and wakala) was signed on 07/02/2016 and entered into force on 06/07/2017.

### 6. Construction of “Sir” Road and Tripoli Eastern Ring – Phase II

On 31/07/2016 the Islamic Development Bank (IDB) approved to finance this project as part of the Program intended to upgrade Lebanon's road network with an amount of US\$ 81,3 million. The agreement was signed on 26/10/2016. The two decrees governing the ratification of the two financing agreements funding this project were issued on 24/05/2018.

### 7. Upgrading and Extension of Tripoli Port Project

On 26/03/2017, the Islamic Development Bank (IDB) approved to finance this project with an amount of US\$86 million. The two financing agreements of this project were signed on 29/01/2018 and were referred pursuant to two decrees to the Parliament for ratification.

#### 8. Support to the Health Sector in Lebanon Project

On 02/07/2017, the Islamic Development Bank (IDB) approved to finance this project within the framework of the Concessional Financial Facility with a total value of US\$30 million (US\$ 5,9 million grant and US\$24,1 million loan). The two agreements related to this project were signed on 09/03/2018, and the CDR referred them pursuant to two decrees to the Parliament for ratification.

### Arab Fund for Economic and Social Development (AFESD)

#### 1- Arab Northern Highway and Zouk Mosbeh – Jeita Road Project

During 2017, preparations were made with the Arab Fund for a loan agreement of a value of KWD 56 million (US\$ 185 million) to finance this project. The agreement was submitted to the Council of Ministers for approval.

#### 2- Waste Water Project in the North of the Litani Basin and Zahle Eastern Villages and Towns:

A KWD 27 million (US\$ 89 million) loan agreement was prepared to finance this project. The agreement was submitted to the Council of Ministers for approval.

### Kuwait Fund for Arab Economic Development (KFAED)

#### 1- Sarafand Waste Water Project

On 15/12/2016, a KWD18 million loan agreement (US\$60 million) was signed with KFAED, to co-finance the Sarafand Waste Water Project. The agreement was ratified on 18/05/2018.

#### 2- Bcharre Drinking and Irrigation Water supply Project

On 25/03/2017 the KFAED approved a soft loan agreement of a value of KWD 11.2 million (US\$37 million) to finance this project. The agreement was signed on 25/08/2017 and then ratified on 18/05/2018.

#### 3- Installation of Two Wastewater Systems in Chouf Project

During 2016, preparations were made for a loan agreement with KFAED to co-finance the installation of two wastewater systems in Chouf, with a value of KWD15 million (US\$50 million). The agreement was signed on 08/02/2018.

### Agence Française de Développement (AFD)

#### 1. Wadi Qadisha Waste Water Project

On 4/02/2018 the Council of Ministers approved a loan agreement to finance this project, with a value of €34 million (US\$39 million). The agreement was signed on 16/05/2018.

#### 2. National Reforestation Project, including Rural Areas Infrastructure

On 04/04/2018 the Council of Ministers approved a grant to finance this project with a value of €15 million (US\$17 million). The agreement was signed on 16/05/2018.

#### 3. Construction and Provision of Equipment to CNAM (Conservatoire national des arts et métiers)

On 10/02/2017, a soft loan agreement of a value of €21 million (US\$25 million) was ratified to finance this project.

#### 4. Projects Preparatory Studies

On 31/10/2017, a grant agreement of a value of €700,000 (US\$835,000) was signed to finance the projects preparatory studies.

#### 5. Project to Support Renewable Energy and Rationalization of Energy Consumption within the framework of Private Sector Support

After a US\$34 million loan agreement was signed to finance this project in 2015, the government was authorized to ratify the agreement under Law No. 74 of 13/04/2018, pending the issuance of the related ratification decree.

### Delegation of the European Union to Lebanon

#### 1. Support to the Judicial System Reform

An addendum to the grant agreement was signed with a value of €4 million, bringing the total value of the grant to €9 million. This agreement entered into force on 07/04/2018.

#### 2. Technical Support to the Council for Development and Reconstruction and Public Administrations

On 27/02/2017, a €5 million grant agreement entered into force to provide technical support to several public administrations and to the Council for Development and Reconstruction.

#### 3. Support to the European Union and Lebanon Partnership

On 25/10/2017, a €6 million grant agreement was signed to support the European Union and Lebanon Partnership. The agreement was ratified on 13/02/2018.

### Republic of Italy

A Framework Agreement was signed between the government of the Republic of Lebanon and the government of the Republic of Italy, covering the following:

1. Projects in the waste water sector
2. Modernization of the industrial sector in Lebanon
3. An eco-tourism project
4. Support to coastal communities in Lebanon Project

The agreement was referred to the Parliament for approval pursuant to Decree no. 606 of 24/04/2017. The Parliament approved the agreement pursuant to Law no.71 of 13/04/2018.

### People's Republic of China

#### 1. Support and Assistance to the Syrian Displaced and to Lebanese Host Communities

On 13/01/2017, two grant agreements were signed with a value of CNY 70 (US\$10.5 million). The two agreements were implemented by the Ministry of Social Affairs.

#### 2. Lebanese National Higher Conservatory of Music

Within the framework of the assistance to build the National Higher Conservatory of Music, an in-kind grant of a value of CNY 100 million (US\$15.4 million) was signed on 13/05/2017 with the Government of China as a first grant. Additionally, three previously offered grants were allocated via Council of Ministers Decision on 14/12/2017 with a value of CNY 120 million (US\$18.4 million), which brings the total amount allocated to this project to CNY 220 million (US\$34 million).

**The Government of Holland**

## 1- Economic Development and Job Creation Support Project

On 26/10/2017, the Council of Ministers approved to receive a grant from the Government of Holland as a contribution to the Economic Development and Job Creation Project, with a value of US\$4.4 million through the Economic and Social Fund for Development (ESFD). The agreement was signed on 10/01/2018 and the ratification decree issued on 19/02/2018.

**Grants Ratified Signed and Approved (1992-2017)  
Distribution by Sector and Funding Source (in Million USD)**

|                                      | World Bank | AFESD | IDBG | KU-WAIT/<br>KFAED | EIB   | SAUDI/<br>SFD | EU     | ITALYF | France(AFD/<br>French Prot/<br>CRIF) |
|--------------------------------------|------------|-------|------|-------------------|-------|---------------|--------|--------|--------------------------------------|
| Total                                | 308.54     | 50.26 | 7.38 | 525.72            | 11.96 | 670.98        | 852.05 | 226.77 | 27.68                                |
| Physical Infrastructure              | 62.94      | 30.81 | 0.25 | 96.99             | 1.03  | 169.71        | 71.12  | 15.59  | 6.95                                 |
| Electricity                          | 7.54       |       |      | 25.36             |       |               | 3.98   |        | 5.41                                 |
| Fixed lines (Telecom)0               |            |       |      |                   |       |               | .90    |        |                                      |
| Public & Private Land Transportation | 45.40      |       |      | 40.62             | 1.03  | 109.71        |        | 10.30  | 0.63                                 |
| Air Transportation                   |            |       |      | 2.62              |       |               |        |        | 0.54                                 |
| Maritime Transportation              |            |       |      |                   |       |               | 3.28   |        | 0.37                                 |
| Multisectorial Infrastructures       | 10.00      | 30.81 | 0.25 | 28.40             |       | 60.00         | 62.96  | 5.30   |                                      |
| Social & Economic Infrastructure     | 178.53     | 12.01 | 1.91 | 259.41            | 0.00  | 415.17        | 148.94 | 160.85 | 4.12                                 |
| Youth & Sports                       |            |       |      | 21.98             |       | 10.44         | 0.86   | 0.04   |                                      |
| Land use & Environment               |            |       |      |                   |       |               | 41.20  | 15.63  | 0.11                                 |
| Housing                              |            |       |      | 135.00            |       | 325.00        | 1.59   |        |                                      |
| Health                               | 15.80      |       |      | 61.58             |       | 44.13         | 1.25   | 30.15  | 0.96                                 |
| Social & Economic Development        | 26.70      | 10.37 |      | 13.59             |       |               | 89.98  | 111.07 |                                      |
| Public Education                     | 32.00      | 0.99  | 1.91 | 23.21             |       | 29.03         | 9.73   | 1.50   |                                      |
| Vocational & Tech. Education         |            |       |      | 4.00              |       |               | 0.10   | 0.54   | 0.38                                 |
| Culture & Higher Education           | 104.03     | 0.64  |      | 0.06              |       | 6.58          | 4.22   | 1.91   | 2.67                                 |
| Basic Services                       | 15.00      | 0.00  | 0.17 | 107.09            | 10.92 | 39.54         | 118.25 | 19.44  | 2.94                                 |
| Solid waste8                         |            |       |      | .60               |       | 23.01         | 43.14  | 3.26   |                                      |
| Water Supply                         | 15.00      |       |      | 64.65             | 7.60  | 16.53         | 7.49   | 15.99  | 2.70                                 |
| Waste Water0                         |            |       | .17  | 33.85             | 3.33  |               | 67.62  | 0.18   | 0.23                                 |
| Productive Sector, Services&other    | 52.07      | 7.44  | 5.05 | 62.22             | 0.00  | 46.56         | 513.74 | 30.90  | 13.68                                |
| Agriculture & Irrigation1            |            | .003  |      | .76               |       |               | 40.42  | 10.47  | 3.40                                 |
| Management and Implementation        | 1.39       | 4.74  | 5.05 | 1.00              |       |               | 245.88 | 9.72   | 6.58                                 |
| Industry                             |            |       |      |                   |       |               | 11.050 |        | .86                                  |
| Tourism1                             |            | .22   |      | 41.73             |       |               |        | 3.62   | 0.62                                 |
| Private Sector Services              | 15.00      |       |      |                   |       |               | 115.72 | 0.12   | 0.15                                 |
| Public information                   |            | 0.17  |      |                   |       |               |        |        |                                      |
| Administration                       | 35.68      | 0.31  |      | 15.73             |       | 35.76         | 56.82  | 5.00   |                                      |
| Fuel                                 |            |       |      |                   |       |               |        |        | 0.27                                 |
| Miscellaneous                        |            |       |      | 0.00              |       | 10.80         | 43.85  | 1.97   | 1.80                                 |



**Loans and Grants Ratified Signed and Approved (1992-2017)  
Distribution by Sector and Funding Source (in Million USD)**

|                                   | World Bank | AFESD    | IDBG     | KUWAIT/<br>KFAED | EIB      | SAUDI/<br>SFD | EU     | ITALYF | France(AFD/<br>French Prot/<br>CRIF) |
|-----------------------------------|------------|----------|----------|------------------|----------|---------------|--------|--------|--------------------------------------|
| Total2                            | ,371.65    | 1,485.73 | 1,492.09 | 1,384.50         | 1,099.81 | 942.95        | 853.05 | 637.10 | 527.91                               |
| Physical Infrastructure           | 510.46     | 684.90   | 639.00   | 438.56           | 490.04   | 308.22        | 71.12  | 273.63 | 161.14                               |
| Electricity                       | 112.27     | 370.51   | 131.47   | 107.59           | 127.55   |               | 3.98   | 258.04 | 125.45                               |
| Fixed lines (Telecom)             | 12.70      |          | 11.71    | 37.30            |          |               | 0.90   |        | 9.79                                 |
| Public & Private Land             | 375.49     | 196.01   | 379.31   | 211.42           | 170.11   | 248.22        |        | 10.30  | 0.63                                 |
| Transportation                    |            |          |          |                  |          |               |        |        |                                      |
| Air Transportation                |            |          |          | 53.85            | 84.47    |               |        |        | 22.25                                |
| Maritime Transportation           |            |          |          |                  | 107.91   |               | 3.28   |        | 3.03                                 |
| Multisectorial Infrastructures    | 10.00      | 118.37   | 116.52   | 28.40            |          | 60.00         | 62.96  | 5.30   |                                      |
| Social & Economic Infrastructure  | 513.41     | 321.55   | 401.69   | 337.27           |          | 507.86        | 149.94 | 174.10 | 72.44                                |
| Youth & Sports                    |            |          |          | 21.98            |          | 10.44         | 0.86   | 0.04   |                                      |
| Land use & Environment            | 26.93      |          |          |                  |          |               | 41.20  | 15.63  | 27.16                                |
| Housing                           | 13.27      | 137.85   |          | 135.00           |          | 325.00        | 1.59   |        |                                      |
| Health                            | 49.05      |          | 133.95   | 61.58            |          | 91.26         | 2.26   | 30.15  | 7.11                                 |
| Social & Economic Development     | 46.70      | 10.37    |          | 13.59            |          |               | 89.98  | 111.07 |                                      |
| Public Education1                 | 16.01      | 22.72    | 34.88    | 101.06           |          | 45.11         | 9.73   | 1.50   | 0.46                                 |
| Vocational & Tech. Education      | 59.54      | 50.18    | 30.46    | 4.00             |          |               | 0.10   | 0.54   | 5.46                                 |
| Culture & Higher Education        | 201.90     | 100.42   | 202.40   | 0.06             |          | 36.05         | 4.22   | 15.16  | 32.25                                |
| Basic Services                    | 909.99     | 209.90   | 421.34   | 389.32           | 448.62   | 74.00         | 118.25 | 158.47 | 234.40                               |
| Solid waste                       | 31.92      |          |          | 8.60             |          | 23.01         | 43.14  | 3.26   |                                      |
| Water Supply                      | 867.74     | 64.88    | 256.68   | 239.42           | 85.96    | 50.99         | 7.49   | 22.34  | 80.92                                |
| Waste Water                       | 10.33      | 145.03   | 164.66   | 141.31           | 362.66   |               | 67.62  | 132.87 | 153.48                               |
| Productive Sector, Services&other | 437.79     | 269.38   | 30.05    | 219.36           | 161.15   | 52.88         | 513.74 | 30.90  | 59.93                                |
| Agriculture & Irrigation          | 77.80      | 209.29   |          | 142.79           |          |               | 40.42  | 10.47  | 5.06                                 |
| Management and Implementation     | 106.64     | 37.53    | 5.05     | 1.00             |          |               | 245.88 | 9.72   | 6.58                                 |
| Industry                          |            |          |          | 18.11            | 39.73    |               | 11.051 |        | .81                                  |
| Tourism                           | 31.50      | 1.22     |          | 41.73            | 37.12    |               |        | 3.62   | 16.52                                |
| Private Sector Services           | 60.00      |          |          |                  | 84.30    |               | 115.72 | 0.12   | 0.15                                 |
| Public information                |            | 0.17     |          |                  |          |               |        |        | 27.73                                |
| Administration                    | 161.85     | 21.17    |          | 15.73            |          | 42.08         | 56.82  | 5.00   |                                      |
| Fuel                              |            |          | 25.00    |                  |          |               |        |        | 0.27                                 |
| Miscellaneous                     |            |          |          | 0.00             |          | 10.80         | 43.85  | 1.97   | 1.80                                 |

| QATAR  | COM-MBANK | Germany (KFW, GTZ) | USA, USAID | JAPAN (JICA /JBIC) | UN/ UNDP/ IFAD | CHINA | OFID  | OMAN  | ADFD  | UAE   | IRAN   | SPAIN | OTHER | TURKEY | Total     |
|--------|-----------|--------------------|------------|--------------------|----------------|-------|-------|-------|-------|-------|--------|-------|-------|--------|-----------|
| 326.00 | 291.65    | 190.49             | 181.13     | 163.63             | 99.98          | 88.79 | 72.52 | 72.29 | 62.50 | 55.00 | 53.72  | 52.98 | 22.57 | 20.00  | 12,548.06 |
|        | 290.76    | 51.86              | 30.00      | 1.10               | 0.48           | 44.39 | 35.00 |       | 10.00 |       | 21.49  | 6.62  | 2.99  |        | 4,071.77  |
|        | 290.41    | 47.68              |            |                    | 0.05           |       |       |       |       |       | 21.49  | 6.62  |       |        | 1,603.00  |
|        |           |                    |            |                    |                | 6.02  |       |       |       |       |        |       |       |        | 78.00     |
|        |           |                    | 30.00      | 1.10               |                |       | 35.00 |       | 10.00 |       |        |       | 1.49  |        | 1,669.00  |
|        |           |                    |            |                    | 0.43           |       |       |       |       |       |        |       |       |        | 161.00    |
|        | 0.35      |                    |            |                    |                |       |       |       |       |       |        |       | 0.70  |        | 115.00    |
|        |           | 4.18               |            |                    |                | 38.36 |       |       |       |       |        |       | 0.79  |        | 445.00    |
| 235.00 |           | 40.70              | 87.13      | 1.47               | 28.54          | 34.94 | 19.12 | 58.79 | 25.00 | 50.00 |        | 46.35 | 14.61 | 20.00  | 3,139.91  |
|        |           |                    |            |                    |                |       |       |       |       |       |        |       |       |        | 33.00     |
|        |           | 10.35              | 0.13       |                    | 13.48          | 0.50  |       | 7.00  |       | 50.00 |        |       | 2.21  |        | 195.00    |
| 210.00 |           |                    |            |                    | 5.31           |       |       | 40.00 | 25.00 |       |        |       |       |        | 893.00    |
|        |           |                    |            |                    | 1.95           | 4.23  | 15.12 |       |       |       |        |       | 5.39  | 20.00  | 422.00    |
|        |           | 5.97               | 87.00      |                    | 4.37           | 12.04 |       |       |       |       |        | 46.35 | 0.61  |        | 428.00    |
|        |           | 6.20               |            | 0.52               | 0.96           |       |       |       |       |       |        |       | 6.40  |        | 346.00    |
|        |           | 18.18              |            | 0.96               | 0.03           | 1.54  | 4.00  | 10.00 |       |       |        |       |       |        | 185.00    |
| 25.00  |           |                    |            |                    | 2.43           | 16.63 |       | 1.79  |       |       |        |       |       |        | 638.00    |
|        |           | 92.35              | 20.00      | 143.45             | 0.01           |       | 5.00  |       | 27.50 |       | 17.58  |       | 0.41  |        | 3,270.60  |
|        |           |                    |            | 0.23               |                |       |       |       |       |       |        |       | 0.17  |        | 110.00    |
|        |           | 31.43              | 20.00      | 89.13              |                |       | 5.00  |       | 10.00 |       | 11.720 |       | .241  |        | ,844.00   |
|        |           | 60.92              |            | 54.08              | 0.01           |       |       |       | 17.50 |       | 5.86   |       |       |        | 1,316.00  |
| 91.00  | 0.89      | 5.58               | 44.00      | 17.60              | 70.95          | 9.47  | 13.40 | 13.50 |       | 5.00  | 14.65  |       | 4.57  |        | 2,065.78  |
|        |           | 0.07               | 21.00      | 0.73               | 55.62          | 5.55  | 13.40 |       |       |       |        |       |       |        | 582.00    |
|        |           | 5.51               |            | 16.01              | 12.68          |       |       | 13.50 |       |       |        |       | 1.41  |        | 462.00    |
|        | 0.89      |                    |            |                    | 1.05           |       |       |       |       |       |        |       | 0.77  |        | 73.00     |
|        |           |                    |            | 0.30               | 0.37           |       |       |       |       |       |        |       | 2.39  |        | 135.00    |
|        |           |                    |            |                    | 0.38           |       |       |       |       |       |        |       |       |        | 261.00    |
|        |           |                    |            |                    |                | 0.23  |       |       |       |       |        |       |       |        | 28.00     |
| 91.00  |           |                    |            | 0.56               | 0.84           | 3.68  |       |       |       | 5.00  |        |       |       |        | 404.00    |
|        |           |                    |            |                    |                |       |       |       |       |       |        |       |       |        | 25.00     |
|        |           |                    | 23.00      |                    |                |       |       |       |       |       | 14.65  |       |       |        | 96.00     |

**Loans Ratified Signed and Approved (1992-2017)**  
**Distribution by Sector and Funding Source (in Million USD)**

|   | World Bank<br>(IDA,<br>IBRD) | AFESD   | IDBG     | KUWAIT/<br>KFAED | EIB      | SAUDI/<br>SFD | EU   | ITALY  |
|---|------------------------------|---------|----------|------------------|----------|---------------|------|--------|
| Total <sup>2</sup>                      | ,063.121                     | ,435.47 | 1,484.71 | 858.79           | 1,087.86 | 271.98        | 1.00 | 410.32 |
| Physical Infrastructure                 | 447.52                       | 654.08  | 638.75   | 341.57           | 489.01   | 138.51        |      | 258.04 |
| Electricity                             | 104.73                       | 370.51  | 131.47   | 82.24            | 127.55   |               |      | 258.04 |
| Fixed lines (Telecom)                   | 12.70                        |         | 11.713   | 7.30             |          |               |      |        |
| Public & Private Land<br>Transportation | 330.09                       | 196.01  | 379.31   | 170.80           | 169.08   | 138.51        |      |        |
| Air Transportation                      |                              |         |          | 51.23            | 84.47    |               |      |        |
| Maritime Transportation                 |                              |         |          |                  | 107.91   |               |      |        |
| Multisectorial Infrastruc-<br>tures     |                              | 87.56   | 116.27   |                  |          |               |      |        |
| Social & Economic Infra-<br>structure   | 334.88                       | 309.54  | 399.78   | 77.85            |          | 92.68         | 1.00 | 13.25  |
| Land use & Environment                  | 26.93                        |         |          |                  |          |               |      |        |
| Housing <sup>1</sup>                    | 3.271                        | 37.85   |          |                  |          |               |      |        |
| Health                                  | 33.251                       |         | 33.95    |                  |          | 47.13         | 1.00 |        |
| Social & Economic De-<br>velopment      | 20.00                        |         |          |                  |          |               |      |        |
| Public Education                        | 84.01                        | 21.73   | 32.98    | 77.85            |          | 16.08         |      |        |
| Vocational & Tech. Edu-<br>cation       | 59.54                        | 50.18   | 30.46    |                  |          |               |      |        |
| Culture & Higher Edu-<br>cation         | 97.87                        | 99.78   | 202.40   |                  |          | 29.47         |      | 13.25  |
| Basic Services                          | 894.99                       | 209.90  | 421.17   | 282.23           | 437.70   | 34.46         |      | 139.03 |
| Solid waste                             | 31.92                        |         |          |                  |          |               |      |        |
| Water Supply                            | 852.74                       | 64.88   | 256.68   | 174.77           | 78.373   | 4.46          |      | 6.35   |
| Waste Water                             | 10.33                        | 145.03  | 164.49   | 107.46           | 359.33   |               |      | 132.69 |
| Productive Sector, Ser-<br>vices&other  | 385.72                       | 261.94  | 25.00    | 157.14           | 161.15   | 6.32          |      |        |
| Agriculture & Irrigation                | 77.80                        | 208.29  |          | 139.03           |          |               |      |        |
| Management and Imple-<br>mentation      | 105.26                       | 32.79   |          |                  |          |               |      |        |
| Industry                                |                              |         |          | 18.11            | 39.73    |               |      |        |
| Tourism                                 | 31.50                        |         |          |                  | 37.12    |               |      |        |
| Private Sector Services                 | 45.00                        |         |          |                  | 84.30    |               |      |        |
| Public information                      |                              |         |          |                  |          |               |      |        |
| Administration                          | 126.17                       | 20.86   |          |                  |          | 6.32          |      |        |
| Fuel                                    |                              |         | 25.00    |                  |          |               |      |        |
| Miscellaneous                           |                              |         |          |                  |          |               |      |        |

| France(<br>AFD/French<br>Prot/CRIF) | COM-<br>MBANK | Ger-<br>many<br>(KFW,<br>GTZ) | USA,<br>USAID | JAPAN<br>(JICA/JBIC) | UN/<br>UNDP/<br>IFAD | CHINA | OFID  | ADFD  | IRAN   | OTH-<br>ER | Total    |
|-------------------------------------|---------------|-------------------------------|---------------|----------------------|----------------------|-------|-------|-------|--------|------------|----------|
| 500.23                              | 291.65        | 93.06                         | 6.00          | 156.18               | 35.52                | 19.79 | 72.33 | 62.50 | 53.72  | 1.47       | 8,905.69 |
| 154.20                              | 290.76        | 47.68                         |               |                      |                      | 13.75 | 35.00 | 10.00 | 21.49  | 0.70       | 3,541.05 |
| 120.04                              | 290.41        | 47.68                         |               |                      |                      |       |       |       | 21.49  |            | 1,554.16 |
| 9.79                                |               |                               |               |                      |                      |       |       |       |        |            | 71.50    |
|                                     |               |                               |               |                      |                      |       | 35.00 | 10.00 |        |            | 1,428.79 |
| 21.71                               |               |                               |               |                      |                      |       |       |       |        |            | 157.40   |
| 2.66                                | 0.35          |                               |               |                      |                      |       |       |       |        | 0.70       | 111.63   |
|                                     |               |                               |               |                      |                      | 13.75 |       |       |        |            | 217.58   |
| 68.32                               |               |                               |               |                      |                      |       | 18.93 | 25.00 |        |            | 1,341.24 |
| 27.06                               |               |                               |               |                      |                      |       |       |       |        |            | 53.99    |
|                                     |               |                               |               |                      |                      |       |       | 25.00 |        |            | 176.13   |
| 6.15                                |               |                               |               |                      |                      |       | 14.93 |       |        |            | 236.41   |
|                                     |               |                               |               |                      |                      |       |       |       |        |            | 20.00    |
| 0.46                                |               |                               |               |                      |                      |       |       |       |        |            | 233.11   |
| 5.08                                |               |                               |               |                      |                      |       | 4.00  |       |        |            | 149.26   |
| 29.57                               |               |                               |               |                      |                      |       |       |       |        |            | 472.34   |
| 231.47                              |               | 45.38                         |               | 141.51               |                      |       | 5.00  | 27.50 | 17.58  |            | 2,887.93 |
|                                     |               |                               |               |                      |                      |       |       |       |        |            | 31.92    |
| 78.22                               |               | 7.76                          |               | 88.18                |                      |       | 5.00  | 10.00 | 11.721 |            | ,669.12  |
| 153.25                              |               | 37.62                         |               | 53.33                |                      |       |       | 17.50 | 5.86   |            | 1,186.88 |
| 46.25                               | 0.89          |                               | 6.00          | 14.67                | 35.52                | 6.04  | 13.40 |       | 14.65  | 0.77       | 1,135.46 |
| 1.67                                |               |                               | 6.00          |                      | 35.52                | 5.55  | 13.40 |       |        |            | 487.26   |
|                                     |               |                               |               | 14.67                |                      |       |       |       |        |            | 152.72   |
| 0.95                                | 0.89          |                               |               |                      |                      |       |       |       |        | 0.77       | 60.45    |
| 15.90                               |               |                               |               |                      |                      |       |       |       |        |            | 84.52    |
|                                     |               |                               |               |                      |                      |       |       |       |        |            | 129.30   |
| 27.73                               |               |                               |               |                      |                      |       |       |       |        |            | 27.73    |
|                                     |               |                               |               |                      |                      | 0.48  |       |       |        |            | 153.83   |
|                                     |               |                               |               |                      |                      |       |       |       |        |            | 25.00    |
|                                     |               |                               |               |                      |                      |       |       |       | 14.65  |            | 14.65    |

| Group              | Acronym     | Fund Name  |
|--------------------|-------------|--|
| ADFD               | ADFD        | Abu Dhabi Fund for Development   |
| AFESD              | AFESD       | Arab Fund for Economic and Social Development                              |
| CHINA              | CHINA       | People's Republic of China   |
| COMMBANK           | COMMBANK    | Various Commercial Banks.  |
| EIB                | EIB         | European Investment Bank   |
| EU                 | EU          | European Union   |
| FRANCE             | CRIF        | Conseil Régional d'Ile de France   |
|                    | FRANCE      | Republic of France   |
|                    | FRANCE-AFD  | French Agency for Development  |
|                    | FRENCH-PROT | French Protocol  |
| Germany (KFW, GTZ) | GERMANY     | Republic of Germany  |
| IDBG               | CFF-IDB     | Concessional Financing Facility-IDB  |
|                    | ICD         | Islamic Cor. for Dev. of Private Sector                                    |
|                    | IDB         | Islamic Development Bank   |
|                    | ITFC        | Int. Islamic Trade Finance Cor.  |
| IRAN               | IRAN        | Islamic Republic of Iran   |
| ITALY              | ITALY       | Republic of Italy  |
| JAPAN              | JAPAN       | Japan  |
|                    | JICA        | Japan International Cooperation Agency                                     |
| KUWAIT/KFAED       | KFAED       | Kuwait Fund for Arab Economic Development                                  |
|                    | KUWAIT      | Kuwait   |
| Lebanese Parlamant | LP          | Lebanon  |
| OFID               | OFID        | OPEC Fund for International Development                                    |
| OMAN               | OMAN        | Oman   |
| OTHER              | AGFUND      | Arab Gulf Program for the Support of United Nation Development Commissions |
|                    | ARABLEAGUE  | League of Arab States  |
|                    | ARGENTINE   | Argentina  |
|                    | BELGIUM     | Le Gouvernement Du Royaume De Belgique                                     |
|                    | GEF         | Global Environment Facility  |
|                    | GREECE      | Greece (Hellenic Republic)   |
|                    | HRELCOM     | Higher Relief Commission   |
|                    | IRELAND     | Ireland  |
|                    | KOREA       | Republic of Korea  |
|                    | METAP       | Mediterranean Environmental Technical Assistance Program                   |
|                    | NETHERLAND  | Netherlands  |
|                    | PRCON       | Private Concerns   |
|                    | SWEDEN      | Swedish International Development Cooperation Agency (ASDI)                |
| QATAR              | QATAR       | State of Qatar   |
| SAUDI/SFD          | SAUDI       | Saudi Arabia   |
|                    | SFD         | Saudi Fund for Development   |
| SPAIN              | SPAIN       | Kingdom of Spain   |
| TURKEY             | TURKEY      | Turkey   |
| UAE                | UAE         | United Arab Emirates   |
| UN/UNDP/IFAD       | IFAD        | International Fund for Agricultural Development                            |
|                    | UN          | United Nations Secretariat (Including country pledges) + Agencies          |
| USA, USAID         | USA         | United States of America   |
|                    | USAID       | US Agency for International Development                                    |
| World Bank         | CFF-WB      | The Concessional Financing Facility  |
|                    | IBRD        | International Bank for Reconstruction & Development (The World Bank)       |
|                    | IDA         | International Development Association                                      |
|                    | LSCTF       | Lebanon Syrian Conflict Trust Fund   |