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<b>Message from the President</b>	2
<b>Introduction</b>	3
<b>General Overview of the sectors</b>	4
<b>Physical Infrastructure</b>	
Electricity	10
Post and Telecommunications	18
Transportation	20
<b>Social Infrastructure</b>	
Education	34
Public Health	48
Social and Economic development	54
Land Use and Environment	68
<b>Basic services</b>	
Potable Water supply	84
Waste water	98
Solid waste	107
<b>Productive sectors and other sectors</b>	
Agriculture and Irrigation	112
Sovereign Services	122
<b>Financing the reconstruction program</b>	124

## MESSAGE FROM THE PRESIDENT



During 2015, the Council for Reconstruction and Development (CDR) continued to carry out its programs as planned, alongside the projects entrusted by the Council of Ministers. Simultaneously, The CDR continued to prepare and plan a wide array of new public projects targeting all Lebanese regions.

From an implementation perspective, this year witnessed the signature of numerous public works contracts that are detailed out in this report, most importantly, the Awali-Beirut Water Conveyor Project implementation contract, with a total budget of US\$ 197 million, funded by the World Bank. This contract represents the first phase of the Greater Beirut Water Supply Project (GBWSP) aimed at increasing water supply in Beirut, while the second phase is intended to construct the Bisri Dam and convey its water by the same pipe built during the first phase.

From a funding perspective, 2015 witnessed the ratification of several financing agreements by the Parliament, namely the Bisri Dam Agreement signed with the World Bank, with a total budget of US\$ 474 million, out of which an amount of US\$ 155 million was allocated for expropriations made for the purposes of this project. This is the first time the Lebanese government obtains a soft loan to compensate for expropriations which are usually covered by local funds. Securing local funds is however a difficult task in Lebanon due to the fact that neither budget laws nor a special law to fund expropriations have been promulgated yet.

Additionally, the Parliament signed two loan agreements with the European Investment Bank (EIB): a €75 million loan to finance the Expansion and Rehabilitation of Nahr El Kalb -Tabarja highway (A1), and another €50 million loan to finance private sector loans in the fields of energy supply and renewable energy.

In a parallel course, preparations were made for agreements that will be signed with several regional and international organizations to secure funds for projects targeting various regions and sectors. These agreements are expected to be signed during 2016.

And yet despite all these efforts, the programming was hampered, due to the fact that the annual budget law has not been promulgated yet. Another obstacle is the lack of sufficient funding available to compensate for expropriations related to certain public works projects despite securing their funds.

As we look to 2016, we hope a new Lebanese president of the republic will be elected so that the constitutional institutions execute their functions with regularity, something that will undoubtedly boost Lebanon's development and have a stimulative effect on the economy, through a national unified vision that will carry the country forward.



## INTRODUCTION

This report presents an overview of CDR's activities during 2015. It contains discussion of significant achievements from 1992 to 2015, development during 2015 and the main projects in preparation.

Each sector includes three tables:

- The Sector Overview table lists projects that are complete or that are in progress. It includes the following information for each project:
  - The number and total value of contracts awarded up to 31 December 2015 (the value 0.0 indicates that the amount is less than US\$ 50,000);
  - The number and total value of completed contracts;
  - The number and total value of contracts in progress and the percentage of completion for each project (averaged across the live contracts related to each project)
- The Contracts Awarded in 2015 table lists the contracts awarded during the past year.
- The Contracts in Preparation table presents details of individual work packages or studies that are expected to be launched by CDR during the year 2016 and after.

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

## 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 2015 was about US \$ 13,207.28 million. About US \$ 8,017.42 million of the projects

were completed, while works valued at about US \$ 5,189.86 million is underway. These contracts are distributed among sectors according to the following ratios:

Sector	%
Electricity	11
Transportation	24
Water supply and Wastewater	17
Telecommunications and Post	6
Solid waste	18
Education	10
Public Health	3
Other sectors	11

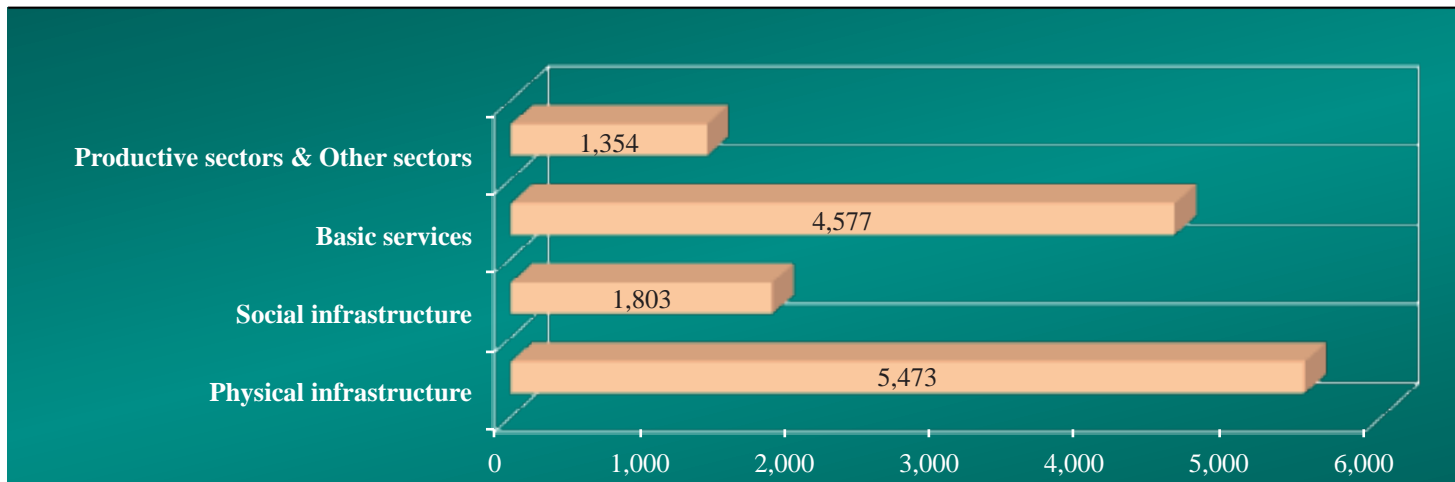
The charts that follow provide an overview of the distribution of contracts over the main sectoral groups, as well as the distribution of contracts over the specific sectors that make up these sectoral groups.

**Total value of contracts awarded from the 31st of December 1992 till the 31st of December 2015 in millions of dollars**

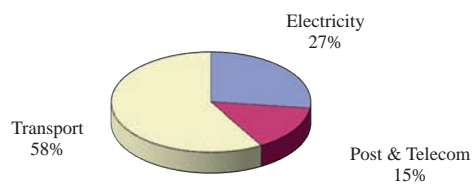
Sectors	Total Contracts (U.S. dollars)	Contracts In progress (U.S. dollars)	Contracts Completed (U.S. dollars)	Foreign funding (U.S. dollars)
<b>Physical Infrastructure</b>				
Electricity	1,477.82	58.00	1,419.82	1,283.06
Telecommunications, Posts	798.49	0.00	798.49	33.26
Transportation	3,197.00	1,120.76	2,076.24	1,132.24
<b>Social Infrastructure</b>				
Education	1,277.70	275.74	1,001.96	561.01
Public health	344.41	56.30	288.11	222.13
Environment and Regional Planning	113.95	57.93	56.02	92.18
Social and economical affairs	66.63	19.07	47.56	24.30
<b>Basic Services</b>				
Water Supply	1,332.85	631.82	701.03	906.80
Wastewater	893.31	542.70	350.61	479.68
Solid Waste	2,351.26	1,836.85	514.41	33.60
<b>Productive sectors and other sectors</b>				
Agriculture and Irrigation	503.78	403.52	100.26	385.94
Sovereign services	166.71	34.56	132.15	12.56
Other Sectors	683.37	152.61	530.76	266.42
Grand Total	13,207.28	5,189.86	8,017.42	5,433.18

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.

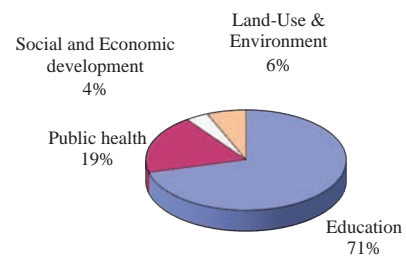
### Contracts awarded \$13,207.28 million - Distribution by sector



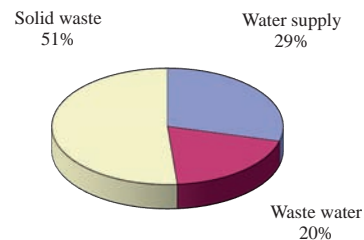
#### Physical infrastructure \$5,473 million



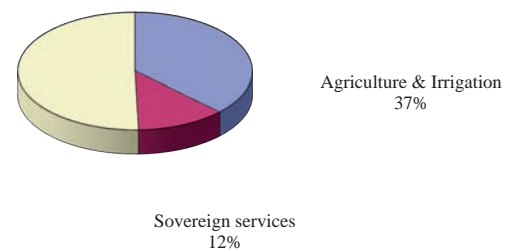
#### Social and Economic sectors \$1,803 million



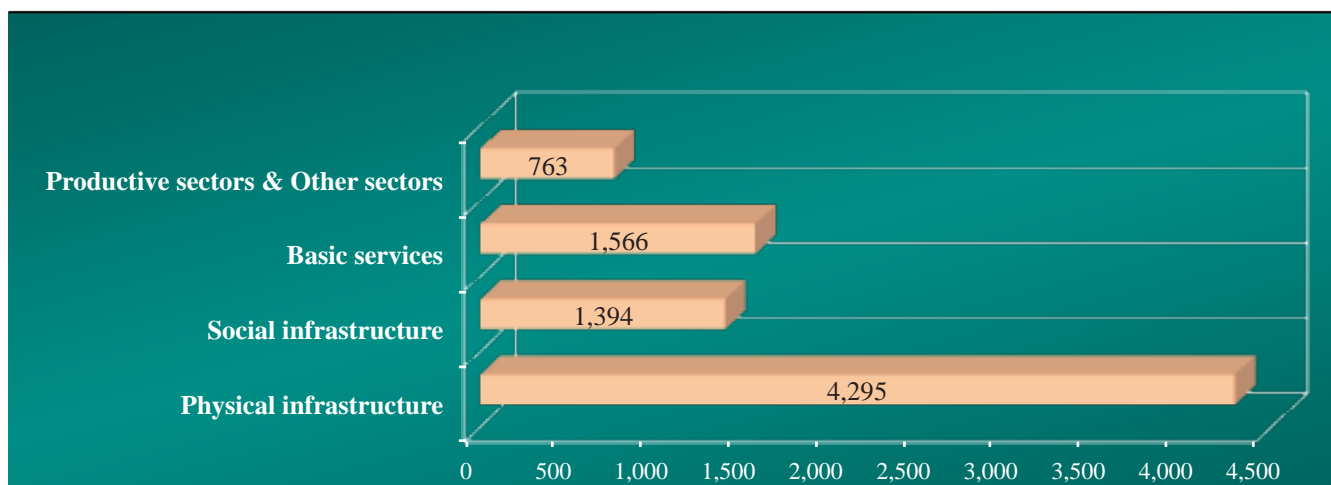
#### Basic services \$4,577 million



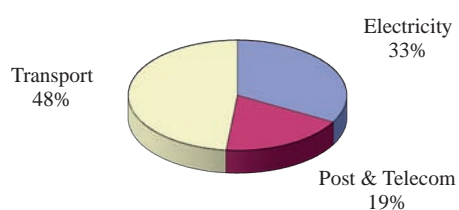
#### Productive sectors & Other sectors \$1,354 million



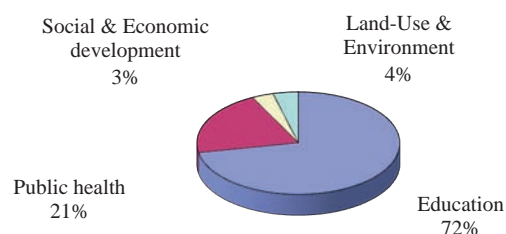
### Contracts completed \$8,017.42 millions - Disdribution by sector



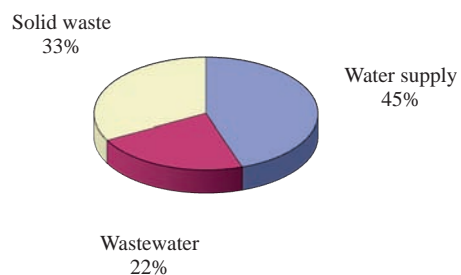
#### Physical infrastructure \$4,295 million



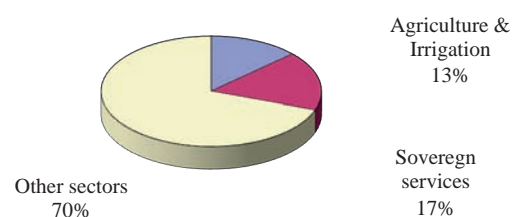
#### Social and Economic sectors \$ 1,394 million



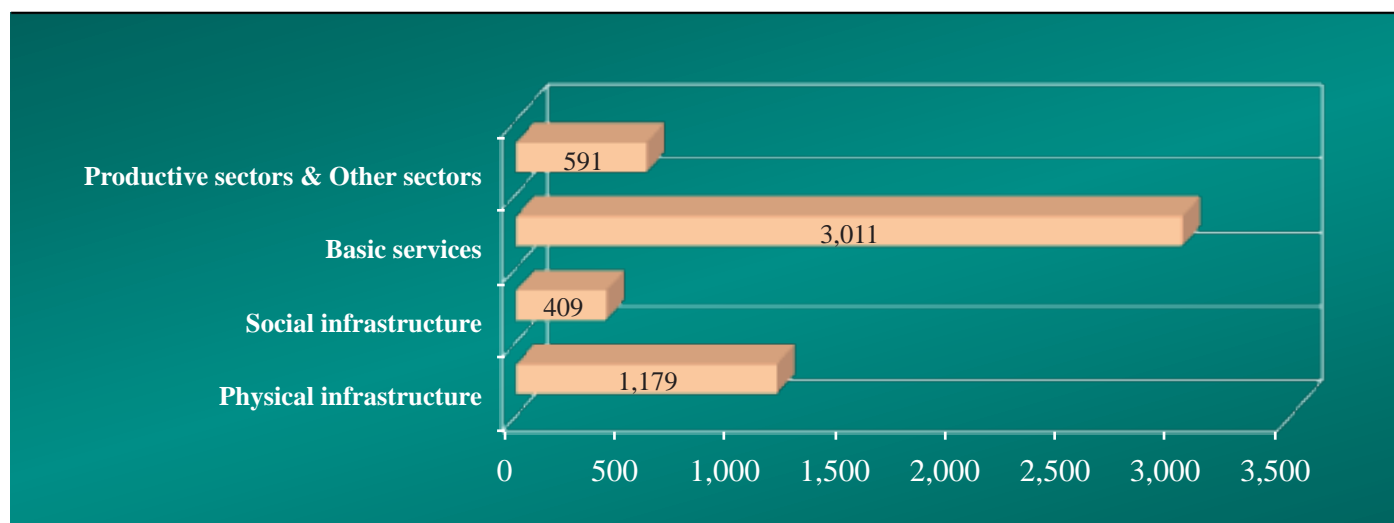
#### Basic services \$1,566 million



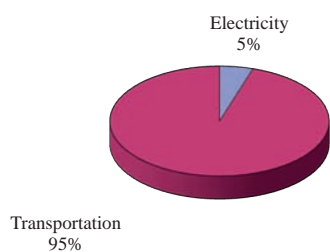
#### Productive sectors & Other sectors \$763 million



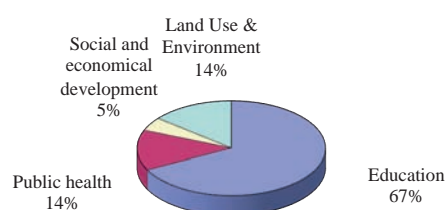
### Contracts in progress \$5,189.87 million - Distribution by sector



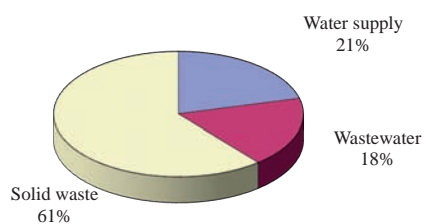
#### Physical infrastructure \$1,179 million



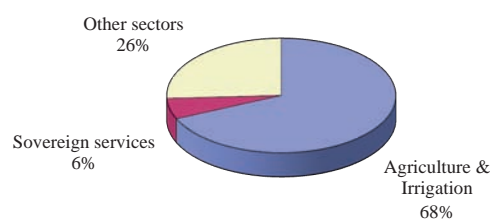
#### Social and Economic sectors \$ 409 million



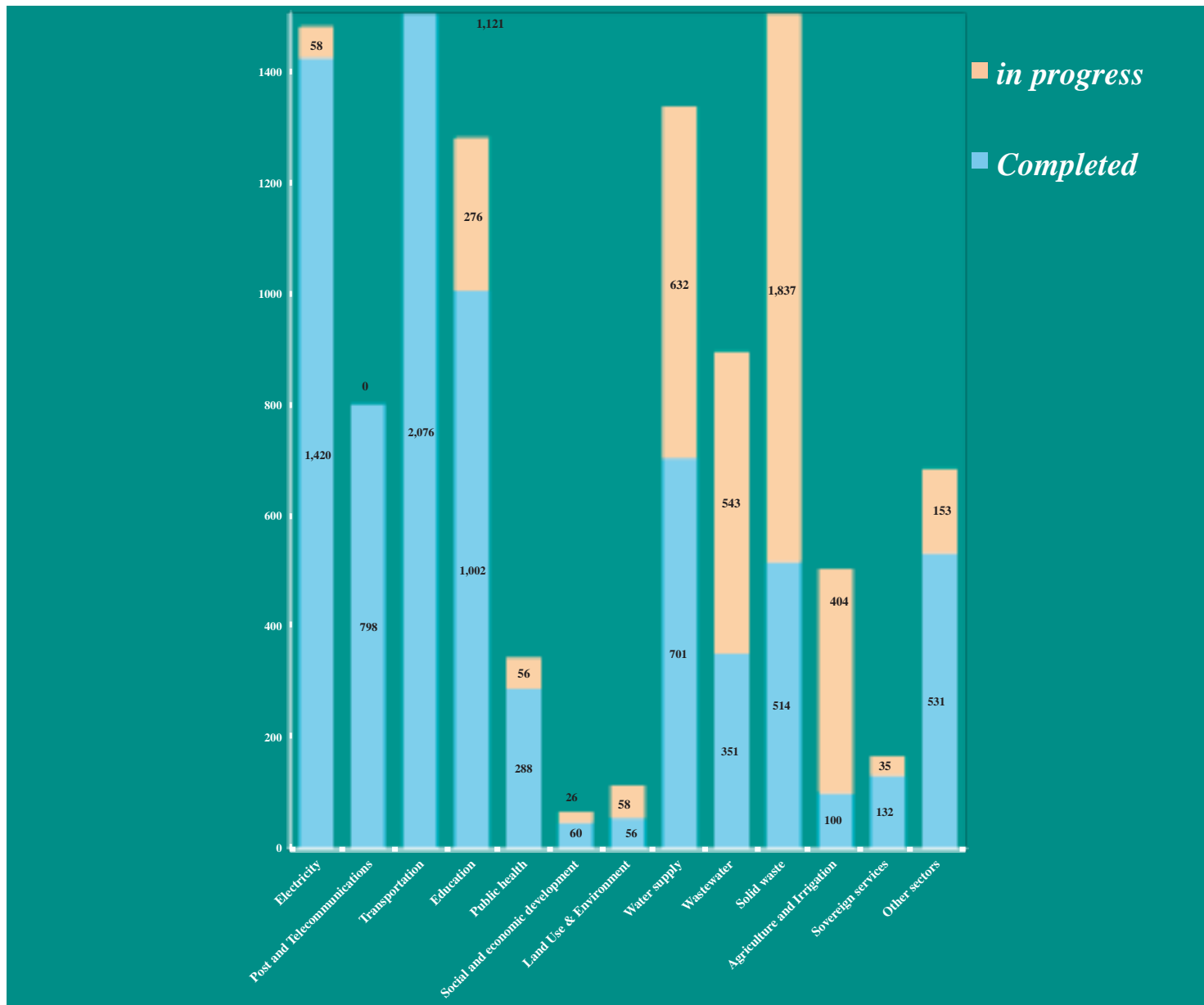
#### Basic services \$3,011 million



#### Productive sectors & other sectors \$ 591 million



**Contracts awarded \$ 13,207.28 millions (completed & in progress) Distributed by sector**



## ELECTRICITY

### I. Electricity Sector Overview

The subject of securing electrical energy supplies from renewable and non-renewable sources represents today 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, like any other economy, is linked to a key variable represented in the traditional way of producing energies, its development stands against the challenges of energy availability, which confines the choice orientation 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 through moving forward with a long-term strategy to develop key economic sectors to reach economic sustainability therefrom.

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 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.

And 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

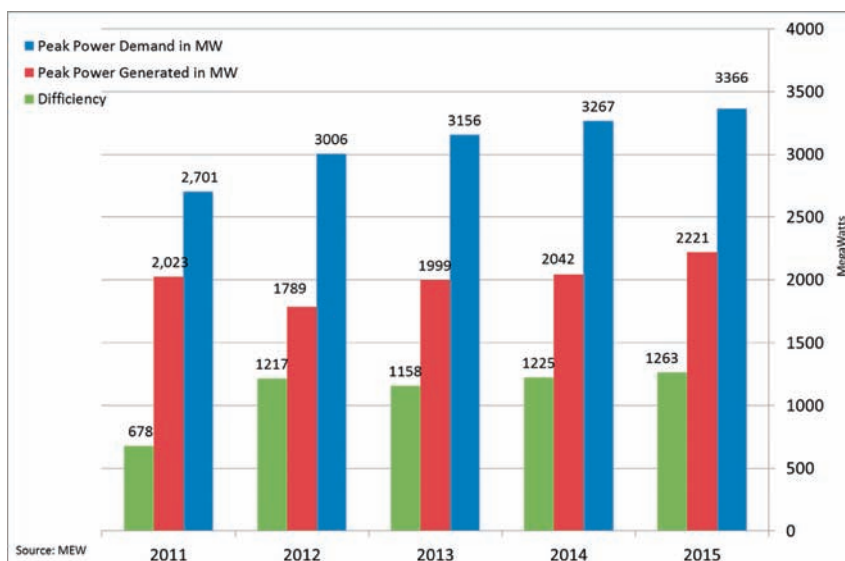
a well rooted gradual reform policy capable of lifting all the aspects of the energy sectors including renewable energy and energy conservation is adopted.

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 for 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 20,637GWh in year 2015 (inclusive of the Syrian refugees demand), which can be approximated at an annual average of 2356MW of power





demand, which is equivalent to 3366MW of peak power demand at a load factor of 70%.

The electrical energy produced and purchased in year 2015 reached 13,622GWh which accounts for an annual average of 1555MW of produced and purchased power or the equivalent of an annual peak of 2221MW of power. The current gap extended to 1145MW represents 34% at peak power demand, which is equivalent to an average of 9 hours of daily rationing. Should this situation prevail, the gap is expected to increase and reach 1246 megawatts by the end of year 2016, which is equivalent to 36% of the demand, or about 9 hours of daily rationing.

Currently, the main effective peak capacity does not exceed 2221MW whereas the demand has surpassed 3366MW in 2014. 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.

Power drawing from Syria started to drop in year 2011. It dropped from 848 Million kilowatt-hours to reach 137 Million kilowatt-hours in year 2014.

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.

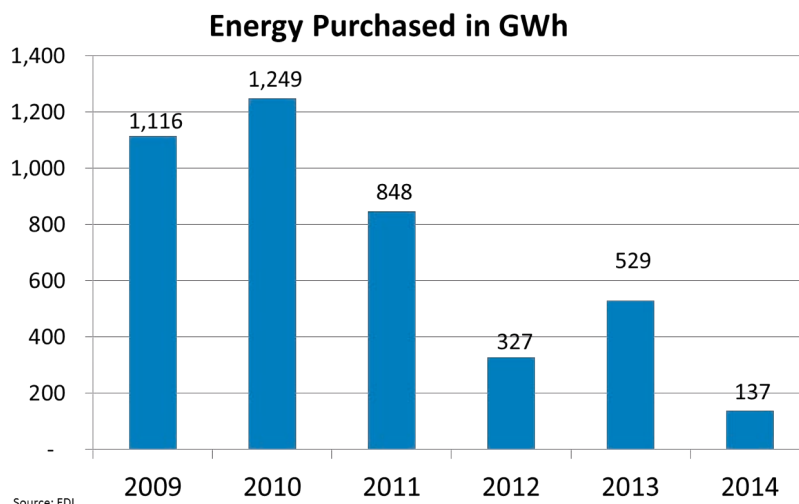
#### **The Main Problems of the Sector**

##### **1) The existence of high operational expenses:**

- 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 Jiyyeh 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 12 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 net-

work.

- 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 in this regard the policy statement for the power sector that gears at securing the financial balance and the sector stability therefrom.

## II. Main Accomplishments (1992 – 2015)

Main projects implemented by CDR for EDL during the 1992 – 2015 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.

### 3) Distribution

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

### III. Progress of works in 2015 - contracts awarded before 2015

-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 2016, 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 92%. 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 incorporates 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 56 major substations and lies in wait for 15 others until connection problems are resolved.

-Rehabilitation and Expansion of Transmission and Distribution Networks in the Liberated regions:

The works for rehabilitation and expansion of the high tension 66KV transmission line and the 20KV/15 kV transmission distribution network in the liberated regions were awarded; however, the contract wasn't signed. The funding from the Iranian protocol was canceled. The total cost of the project was estimated at about \$ 25 million (US Dollars). CDR is currently seeking to secure alternative financing.

-The rehabilitation and Expansion Project of Al-Ayoun and Fneidek Transmission and Distribution Network in Akkar:

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 5,150,000 euros project was designed to raise the transmission and distribution power capacity of the region from 10 to 40 MW.

-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 Setaata 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 in-





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 in August 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.

• 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 with expectations to issue the final version in 2010.

#### IV. Main Projects Under Preparation (2016 – 2017) Generation sector:

o The rehabilitation of Zouk and Jiyyeh power plants:

The installed and actual capacities of the Zouk and Jiyyeh power plant units are as follows:

	Unit number	Installed Capacity in MW	Actual capacity in MW
Zouk plant	1	145	90
	2	145	-
	3	145	92
	4	172	110
	-	-	-
	Total	607	292

	Unit number	Installed Capacity in MW	Actual capacity in MW
Jiyyeh plant	1	62	52
	2	62	38
	3	69	58
	4	69	57
	5	69	54
	Total	331	259

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 Jiyeh power plant, in preparation for the complete dismantling of the plant.

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 2016, and the detailed design study for the Jiyeh power plant is expected to be accomplished by end of year 2017.

- o 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.

- o 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.

- o 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 2015. The two steamers secure close to 270MW of power in Zouk and Jieh power plants.

Transmission sector:

- o 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:

- o 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 2016.

The Master Plan of the Greater Beirut area includes: the updating of the Master Plan of 1998 for the city of Beirut, the area extended from Mkalles to Aaramoun, in addition to the Master Plan for the southern and northern suburbs.

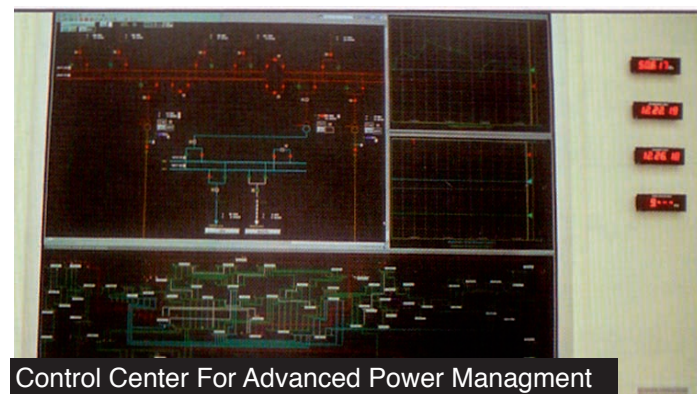




FatimaGul Ship for Power Generation



Power Plant Deir Amar



Control Center For Advanced Power Management

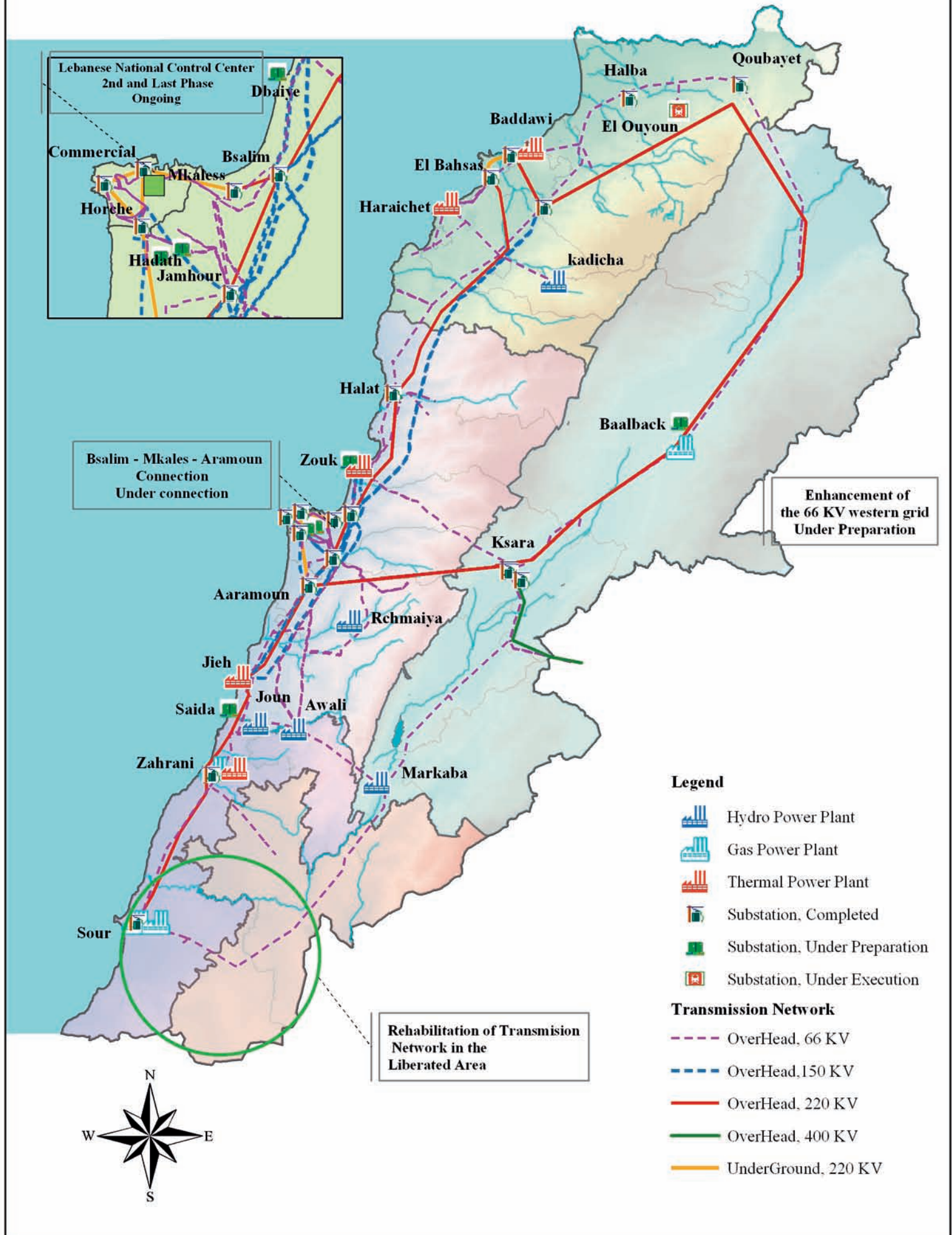


Eight Countries Interconnection Network -Ksara Station



# Electricity

## Completed, Ongoing & Under Preparation Projects



## 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 - 2015

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.

# TRANSPORTATION

## Land Transportation

### 1-Overview of the land transportation sector

In the aftermath of the Lebanese war, reconstruction projects and plans emerged successively: Urgent Rehabilitation Program of 1991 adopted by the Lebanese Government, "Horizon 2000" program of 1993, five-year Economic Development Plan of 1999, and Development Program of 2003. As a consequence of the reconstruction era, the land transportation sector has witnessed, since 1992, vast renovation and rehabilitation works on the existing Lebanese roads in addition to the construction of new roads. Between 1992 and 2015, the aggregate value of executed projects totaled around US\$ 2.357.76 million, of which US\$ 1.332.08 million projects completed up until the end of 2015 and US\$ 1.025.68 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) launched 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 Beirut suburbs road network;
- Renovation and upgrading of main and secondary roads in

Lebanese regions;

- Construction of new main and secondary roads in Lebanese regions.

The CDR completed part of the above-mentioned projects, while other projects and project components are still underway and will continue in the next few years. CDR continues to explore opportunities and undertake negotiations with donors and stakeholders to meet technical requirements and secure necessary funds to award the remaining contracts and complete these projects.

### 2-Main projects achieved (1992 – 2015)

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 a number of projects are underway 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-Qoubbet 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 rapid northern coastal road: Chekka-Tripoli-Al Bahsas section.

- Renovation 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 Kalb Interchange (with addendums, 1, 2 and 3).

South highway, Saida sea front section.

- South highway, sections of Zaharani, Sour, Cana crossing, Phase 1: Zahrani-Babilieh

- South highway, sections of Zaharani-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 Rahhal 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 Rahhal 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 seafront, including construction of a bridge in Sinniq region, connecting the coastal road with the South highway.

Within the context of Beirut-Syrian border road:

A number of contracts were executed, mainly:

- Execution of works complementing the project aimed at providing road traffic safety installations and material 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).
- Beautification works at the internal Bhamdoun road 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 – Phase 1 and 2 (Execution of Camille Chamoun Boulevard – As-Sayad roundabout (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-Baalback section (from Douris to Baalback with Baalback entrance from Tell Aammar intersection to Rayak) as part of the project intended to rehabilitate the Chtaura-Rayak-Baalback 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-Riyak-Baalback-Northern Lebanese border, parts 1 and 2.
- Within the framework of Chtaura-Baalbek- Syrian border road (El Kaa): execution of remaining road works to renovate Baalback east entrance.

The problem of transportation in urban areas is worsening, especially within Greater Beirut and its surroundings, where private cars constitute the main transport means, which will necessitate, if no public transportation is developed, the creation of additional spaces for roads and car parks in addition to adopting a developed system to manage traffic.

To put up with such reality, the CDR conceived 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 the Greater Beirut area and is composed of three components:

- Improvement of main traffic axes, including the construction of bridges and tunnels at 19 intersections and the execution of related site works along main roads.
- Installation of 220 traffic lights and 30 traffic-monitoring cameras, traffic signs, road markings, and creation of a monitoring and

management center for traffic circulation, and improving the pedestrian walkways.

- Parking management program with parking meters for 5000 cars.

Within 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.
- Providing training to a number of 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 the intersection of Bechara El Khoury with the Independence Avenue.
- Moucharafieh Bridge (the overpass works on the Chatila – Kafaat Boulevard – Chiyah-Moucharafieh intersection).
- Project intended to find a solution to the problem of low altitude under the Beirut River

Bridge on the Dora-Qarantina Highway, and under the bridge leading to Bourj Hamoud over the Emile Lahoud and Beirut River Highway.

Beirut entrances connected to the Ring Highway:

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

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

The main completed projects include:

- Execution of the underpass beneath the Mar Mikhael intersection, within the context of the Urban Transport Development project;
- The Antelias bridge, within the context of the Urban Transport Development project;
- The underpass beneath the Tayouneh roundabout, within the context 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 overpath 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 the Mkalles roundabout (with addendums 1 and 2);
- Reconsideration of the study pertaining to Charles Helou interchange connecting the 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 in the area of Mar Chaaya-Aatchaneh intersection.
- Grubbing of the Bqaile'-Sannine road within the Cliffs Road project "مشروع طريق القمم" (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:

Among the main completed contracts:

Northern suburbs: works are completed on the Bourj Hamoud, 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 Bourj Hamoud. Rehabilitation works of Sin el Fil

road and Saloumi-Naba'a-Nahr el Mot road.

Southern suburbs: works completed to date are: 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 the sections of Mreijeh, Kassis, Ghobeyri, Haret Hreik, Borj el Brajneh, Furn el Chebbak and Ain el Remmaneh. Also, the rehabilitation works of Jamous road and associated services are also completed.

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

- Execution of site works at Gebrayel passageway, Rahbeh's entrance and passageway, and Birkayel's passageway and an internal road in Fneideq;
- Rehabilitation of the road of Beit el Faqs-Qarsita-Nemrine square;
- Two interchanges of Hadeth el Joubbe and Hasroun and the Diman road (Qadisha roundabout);
- Ehden interchange – 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 Ardat-Mejdalya road;
- Grubbing and construction of the road of Daael - Basatin al Ossi - Beit Chlala – Tannourine El Tahta;
- Ehden interchange – Phase I;
- Ras Kifa-Ayto road;
- Kfar Harra-Bire;
- Chadra-Mqailbe;
- Andaket-Kounieh;
- Akroum-Kfartoun;
- Ardat-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 – Kartaba project (Phase I extending from Beit el Heith to Sawaneh – 5km);
- Execution of works to rehabilitate the two wastewater treatment plants in Jbaa, Aintourin, implemented as part of Ehden interchange project;
- Rehabilitation of Joun-Zaarouriyeh-Zaitouniyeh 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, Berkayel passageway and an internal road in Fneideq;
- Execution of remaining works of the project intended to grub the road extending from Mrah el Sreij-Bakhoun- Taran to Hazmieh Bridge;
- Becharre converter (with addendum 1);
- Al Bahsas – Kousba road (with addendum 1).
- Rehabilitation of Beit el Faqs-Karsita-Sahet Nemrin road;
- Rehabilitation of Jeita-Ouyoun el Siman road;
- Grubbing of the Monjez-Aboudieh road (13 km);
- Grubbing of 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 ed Dannieh-Jbab el Homor-Hermel road project:

- Execution of Jbab el Homor-Hermel road;

It is worth mentioning that this report outlines the projects that have been referred to the CDR by the Construction Projects Council “مجلس تنفيذ المشاريع الإنشائية” and the Construction Projects Council for Greater Beirut “مجلس تنفيذ المشاريع لمدينة بيروت الكبرى”, i.e:

In the context of Transport Development in Greater Beirut:

- Rehabilitation and lighting of Kuwait street and its surroundings

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

- Phase 1 of south highway Jiyeh-Zahrani section;
- South highway project, Saida coastal road (phase 2);
- South highway project, Saida coastal road (phase 3);
- Deir Zahrani-Nabatiye 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 phase 4 works at the South Highway Zahrani-Sour section-Kana diversion between Litani bridge and Bourj 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 (Baalback), reconciliation contract

### 3-Work progress during 2015 in contracts awarded before 2015

The following projects are underway:

In the context of coastal road project

- Execution of section 1 works of phase 5 extending from Abassiye to Cana intersection ( from station 25+900 to station 30+300) as part of the south highway, Zahrani section, Tyre-Cana
- Execution of Tripoli west ring road (Mina-Baddaoui section).

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

- Execution of Arab highway Mdeirej-Jisr el Namliyah-Chtaura-Taanael, Phase 1 (Jisr el Namliyah (Bouarej)-Chtaura-Taanael);
- Baalchmey-Sofar section (6.5 km);
- Execution of the works of part II of the various construction projects at the Masnaa border point;
- Execution of Taanael-Masnaa section of the Arab Highway project;

In the context of miscellaneous roads across the Lebanese regions:

- Execution of road works in Hbarieh-Chebaa and Zaghlachouaya-Chebaa;
- Expansion and renovation of Amchit-Maifouq road (with addendums 1, 2 and 3);



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

- Sir ed Dannieh-Jbab el Homor road;
- Execution of Sir ed Dannieh-Bqarsouna-Qarsita.

#### 4-Main contracts awarded during 2015

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

- Execution of the project intended to complement the Hazmieh connector - renovation of the old Damascus road in Hazmieh.

In the context of Chtaura –Baalbeck – Syrian border (Qaa) project:

- Rehabilitation of Karak – Hamra Plaza – Ablah – Taadod – Riyak road

In the context of Metn expressway:

- Execution of Mar Chaaya-Aatchaneh- Ain Alaq connector.

In the context of Beit Ayoub-Fneideq project:

- Execution of Beit Ayoub-Fneideq road.

In the context of Qadisha Roundabout:

- Execution of Phase 2 works of the project of the two roundabouts of Hadath el Jebe, Hasroun, Diman road within the context of the project intended to rehabilitate Hadath el Jebe – Berqasha road.

- Construction of Hadath-De-kweneh road (6.2 km) (Beirut ring road);
- Ain Alaq-Bteghrine road within Metn expressway project;
- Mar Chaaya – Aatchaneh – Ain Alaq road within Metn expressway project;
- Galerie Semaan intersection;
- Tunnel and bridge near Ministry of Resources;
- Execution of Sir interchange;
- Construction of Beit Ayoub-Fneideq road;
- Jounieh – Bkerke – Harissa road;
- Bqerqasha conversion;
- Cedars road;
- Ghazir-Jdeidet Ghazir road;
- Expansion and rehabilitation of Mayrouba - Nahr el Dahab - Jouret el Termos – Hadchat - Yahchouch road;
- Renovation and expansion of coastal road between Nahr el Kalb and Tabarja;
- Darou'n – Harissa road;
- Haret Sakhr – Darou'n road;
- Main intersections on Jeita – Faraya road (Jeita-Sheile-Bal-loune-Daraya-Ajaltoun);
- Rehabilitation of Jbeil – Anaya road;
- Completion of Bir el Heith-Qartaba road;
- Arab Highway, Beddawi-Ab-boudieh section.



Arab Highway

#### 5-Main projects under preparation for 2015-2017

- Tripoli East Highway project (Al Bahsas-Beddawi);
- Completion of the South highway;
- Mdeirej (Hamana)-Jisr el Namlie (Bouerij) section located on Beirut-Damascus road (Masnaa);
- Construction of a road between Jamhour and Baalchmay (12.7 km) (Arab highway);

### Major Contracts Awarded During 2015

Project	Contract amount (USD)	Source of funding	Commencement Date	Scheduled completion
Within the framework of Beirut-Damascus Road (Masnaa )				
Execution of the project intended to complement the Hazmieh connector - renovation of the old Damascus road in Hazmieh	2.968.655	Program Law	June 2015	July 2016
Within the framework of the Chtaura –Baalbeck – Syrian border (Qaa) project				
Rehabilitation of Karak – Hamra Plaza – Ablah – Taadod – Riyak road	23.305.403	Kuwait Fund for Arab Economic Development	August 2015	September 2018
Within the framework of the coastal road project				
Execution of and supervision over part of Maghdousheh road works complementing Phase 5 of the Saida seafront, extending from Sinniq Bridge to the converter located on south highway – Saida seafront cross-roads	733.759	Program Law	May 2015	October 2018
Topographic surveys pertaining to the highway stretching from Khalde to Dbayeh and preparation of traffic study pertaining to interchanges connecting this highway to main roads; Elaboration of a preliminary study and assessment of needed documents for the issuance of land acquisitions decree required for this highway	450,000	Program Law	February 2014	November 2014
Within the framework of Metn expressway				
Execution of phase 2 works of demarcation of Roumieh – Beit Mery road	8.135.180	Council for Reconstruction and Development	April 2015	May 2017
Execution of Mar Chaaya-Aatchaneh-Ain Alaq connector	17.923.105	Council for Reconstruction and Development	August 2015	March 2018
Within the framework of Beit Ayoub – Fneideq road				
Execution of Beit Ayoub – Fneideq road	15.700.744	Council for Reconstruction and Development and Saudi Fund for Development	September 2015	October 2017
Within the framework of Qadisha Roundabout				
Execution of Phase 2 works of Hadath El Jebe, Hasroun and Diman road roundabouts	17.172.012	Council for Reconstruction and Development and the Islamic Bank for Development	November 2015	June 2018

## Major projects in progress 2016 - 2018

Project	Approximate amount (USD)	Source of funding	Expected start	Expected execution date
East ring road of Tripoli (extending from Al Bohsas to Beddawi)	100,000,000	Islamic Bank for Development	September 2017	September 2021
Completion of South highway (until Tyre entrance)	35,000,000	Proposed to the Saudi Fund for Development	March 2017	March 2019
Mdeirej (Hamana)-Jisr el Namliye (Bouerij) on Beirut-Damascus road (Masnaa)	45,000,000	Saudi Fund for Development	January 2017	February 2020
Construction of a road between Jamhour and Baalchmey (12.7 km) (Arab highway)	300,000,000	Proposed to the World Bank	December 2017	December 2020
Construction of Hadath-Dekweneh road (6.2 km) (Beirut ring road)	250,000,000	Proposed to the World Bank	December 2015	December 2018
Galerie Semaan intersection	10,000,000	World Bank	December 2017	December 2019
Sir road project	30,000,000	Islamic Bank for Development	September 2016	September 2018
Ain Alaq-Bteghrine road- Metn expressway project	55,000,000	Ministry of Public Works Program Law 326/2001	July 2017	July 2018
Safety and landslide repairs in Byakout	3,500,000	Public Budget reserves	June 2017	June 2018
Bkerkasha interchange	10,000,000	Islamic Bank for Development	January 2017	January 2018
Cedars road	15,000,000	Law program of Ministry of Public Works 326/2001	January 2017	January 2018
Ghazir-Jdeidet Ghazir road	6,000,000	Law program of Ministry of Public Works 326/2001	January 2017	January 2018
Expansion and renovation of Mayrouba-Nahr el Dahab-Jouret el Termos-Hadchat-Yahchouch road	20,000,000	Law program of Ministry of Public Works 326/2001	January 2017	January 2018
Renovation of Haret Sakhr-Daroun road	6,000,000	Proposed to the Saudi Fund for Development	March 2017	March 2019
Daroun-Harissa road	7,000,000	Proposed to the Saudi Fund for Development	March 2017	March 2019
Main intersections on Jeita-Faraya road (Jeita-Sheile-Balloune-Daraya-Ajaltoun)	12,000,000	Proposed to the Saudi Fund for Development	March 2017	March 2019
Renovation of Jbeil-Aanaya road	12,000,000	Proposed to the Saudi Fund for Development	March 2017	March 2019
Arab Highway Beddawi-Abboudieh section	270,000,000	Local funding Program Law 246	April 2016	December 2019





Hasroun-Diman Road



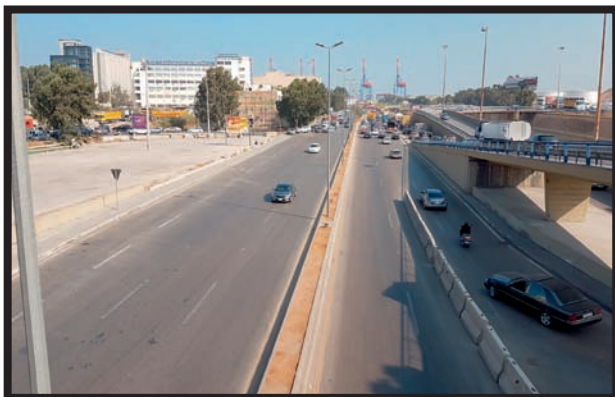
Sir El Dinieh-Karsouna Road



Roumieh-Beit Mery Road



Amchit- Mayfouk Road



Emil Lahoud Highway



West Tripoli Ring Road



Beit Ayoub-Fneidek Road

# TRANSPORTATION

## Maritime Transport

### 1- Sector Overview

The Beirut Port Authority and the Tripoli Port Authority supervised the large execution contracts awarded for the development of the Port of Beirut and the Port of Tripoli, with a total value of around US \$175 million, funded by foreign funds. Most of the works under these contracts have been concluded. 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.

### 2- Main achievements for 1992 - 2015

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 (Euro 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 (temporary administration for the operation and exploitation of the Port of Beirut) released a call for tenders in mid-2004 to subcontract the management and operation of the terminal.

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 2015.

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:

- The Increase of the depth of the access channel from 10 to 13 meters

- The construction of a 600m long quay extending from the existing port towards the Abu Ali river

- The construction of a detached breakwater (1000 meters) and completion of the 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 EUR 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 budget of US\$ 23 million. Additionally, the supervision of these works was subcontracted 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 the necessary studies and the tender document related to the project aimed at filling marine areas that will accommodate an economic zone



in the Port of Tripoli.

Transformation of the Commercial Port in Tyre into a Tourist Destination:

The feasibility study related to the transformation of the commercial port of Tyre into a tourist destination was completed.

Tourist Port in Jounieh:

A feasibility study and an Environmental Impact Assessment related to the construction of a tourist port in Jounieh were completed.

### **3-Main contracts signed in 2015**

Execution of the project aimed at filling marine areas that will accommodate an economic zone in the Port of Tripoli.

### **4-Main projects under preparation in the horizon of 2016 - 2018**

Tourist port in Tyre:

Following the completion of the feasibility study related to the transformation of the Commercial Port of Tyre into a tourist destination, the detailed studies of this project are expected to be subcontracted to lay the ground for its execution.

Tourist port in Jounieh

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



Arab Highway

# TRANSPORTATION

## Air Transport

### 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 capacity gradually to reach 16 million passengers yearly by 2035.

### 1-Main achievements during 1992 - 2015

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 new runway at the east of the existing runway, and a new west 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 concluded to date; some additional works are underway. Works of the first phase of the passenger terminal are 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 subcontracted, including two additional luggage conveying systems; these works were concluded on June 30, 2000. The west runway has been operational since 2001.

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

- Airport Radar Building: works concluded in September 1996.
- Civil Aviation Safety Center: works concluded in October 1996.
- Civil Aviation Maintenance building: works concluded in June 1997.
- Rescue and Firefighting Training building: works concluded in July 1997.
- Ground Firefighting Services building: works concluded in July 1997.
- Automated Mail Processing Center: works concluded 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 delivered 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 Saida road was completed in December 1999.
- The Ouzai road embankment works were concluded in 2000.
- Car parking and aircraft fueling facilities were completed on the basis of 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 ex-

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 subcontract 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).

- Oversight over the project on the rehabilitation of the control and surveillance systems of the Airport Radar.

- Oversight over the 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 subcontract the operation and maintenance of the Airport facilities and equipment.

- Preparation of a tender document to subcontract 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 moderniza-

tion 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.

## **2-Main contracts awarded in 2015**

- Replacement of the old system of the Airport's medium voltage network.

## **3-Work progress in 2015 in contracts signed before 2015**

**The implementation of the following projects is underway:**

- The execution of works for the rehabilitation of the aircraft tarmacs, the water evacuation channel and the electricity network of 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.

## **4-Main projects under preparation in the horizon of 2016-2018**

**Preparations for the following contracts are underway:**

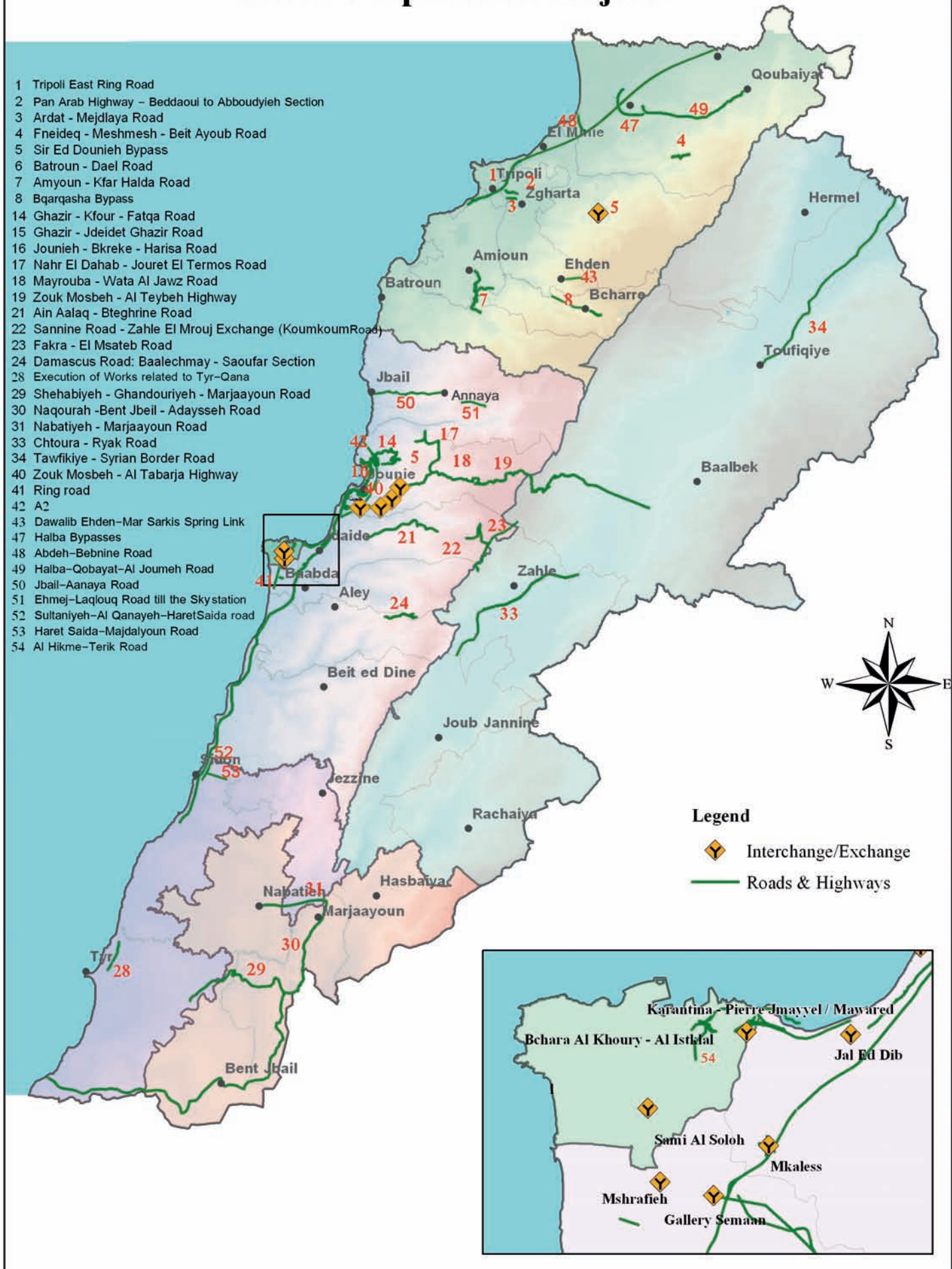
- Execution of the civil works for the rehabilitation of the Airport runways and taxiways.

- 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.



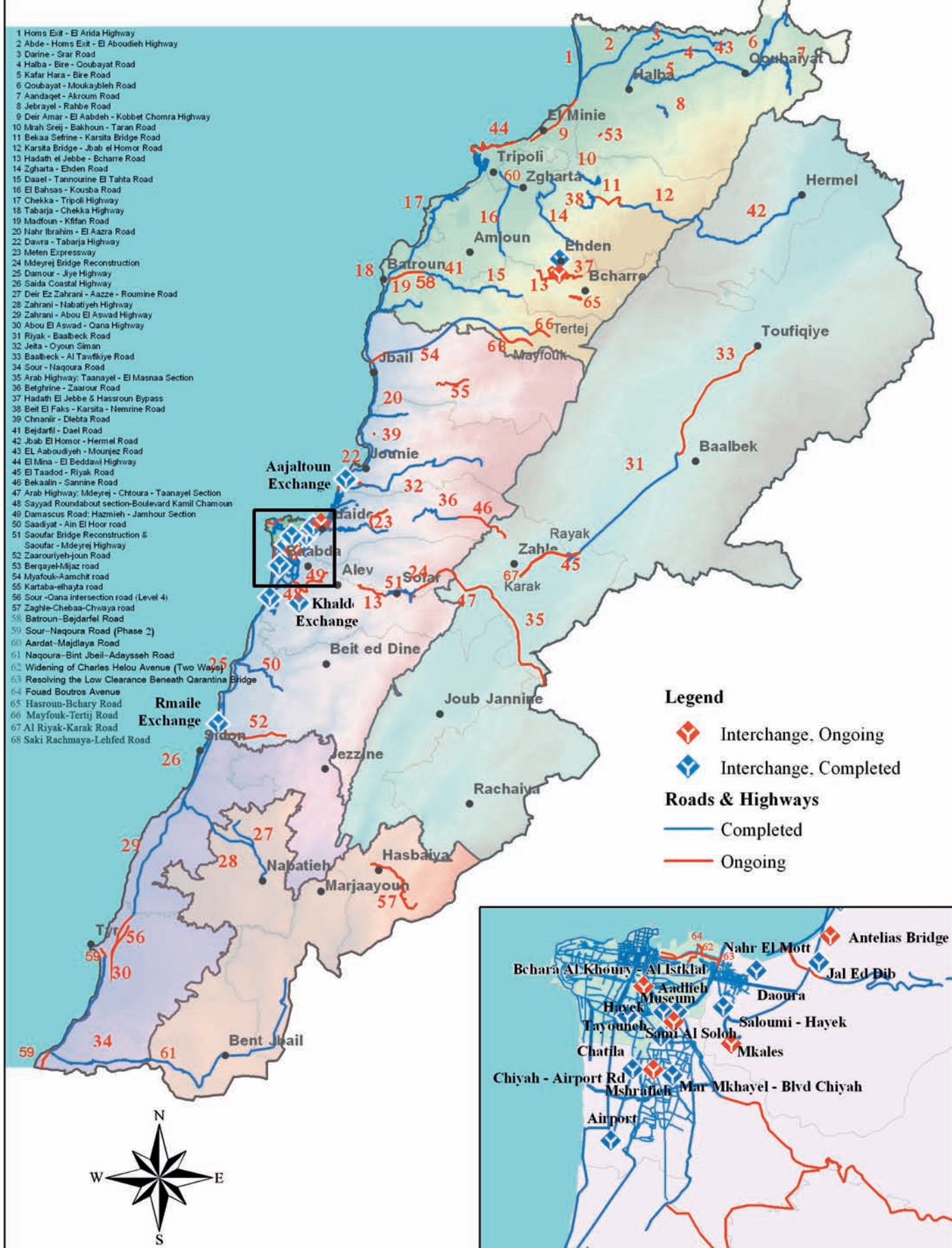
# Roads & Highways Under Preparation Projects

- 1 Tripoli East Ring Road
- 2 Pan Arab Highway – Beddaoui to Abboudiyeh Section
- 3 Ardat - Mejdlaya Road
- 4 Fneideq - Meshmesh - Beit Ayoub Road
- 5 Sir Ed Dounieh Bypass
- 6 Batroun - Dael Road
- 7 Amyoun - Kfar Halda Road
- 8 Bqarqasha Bypass
- 14 Ghazir - Kfour - Fatqa Road
- 15 Ghazir - Jdeidet Ghazir Road
- 16 Jounieh - Bkreke - Harisa Road
- 17 Nahr El Dahab - Jouret El Termos Road
- 18 Mayrouba - Wata Al Jawz Road
- 19 Zouk Mosbeh - Al Teybeh Highway
- 21 Ain Aalaq - Bteghrine Road
- 22 Sannine Road - Zahle El Mrouj Exchange (Koumkoum Road)
- 23 Fakra - El Msateb Road
- 24 Damascus Road: Baalechmay - Saoufar Section
- 28 Execution of Works related to Tyr-Qana
- 29 Shehabiye - Ghandouriyeh - Marjaayoun Road
- 30 Naqourah - Bent Jbeil - Adaysseh Road
- 31 Nabatiye - Marjaayoun Road
- 33 Chtoura - Ryak Road
- 34 Tawfiqiye - Syrian Border Road
- 40 Zouk Mosbeh - Al Tabarja Highway
- 41 Ring road
- 42 A2
- 43 Dawalib Ehden-Mar Sarkis Spring Link
- 47 Halba Bypasses
- 48 Abdeh-Bebnine Road
- 49 Halba-Qobayat-Al Joumeir Road
- 50 Jball-Aanaya Road
- 51 Ehmej-Laqlouq Road till the Skystation
- 52 Sultaniyeh-Al Qanayeh-HaretSaïda road
- 53 Haret Saïda-Majdalyoun Road
- 54 Al Hikme-Terik Road





# Roads & Highways Completed & Ongoing Projects



## EDUCATION AND HIGHER EDUCATION

The government plan with respect to public education aims to “provide a seat in primary school for every Lebanese child”, in accordance with the policy of “Education for All”, adopted in the Dakar Conference. After the Ministry of Education and Higher Education (MEHE) has laid the foundations for the reforms within the education sector, the plan was expanded beyond the quantitative criteria of “school seats” to a broader concept of education providing quality, equal opportunities and contributing to social integration and economic development. After the July 2006 war, the MEHE conducted a study to assess the effect of war on the education sector in collaboration with the World Bank and the UNESCO before launching a reform process with the first step being the “National Strategy for Education in Lebanon” achieved by the Lebanese Commission for Educational Sciences in the end of 2006 and presented to the Council of Ministers for adoption in the beginning of 2008. This was followed by a larger and broader action plan for the Ministry, the aim being to work toward compulsory quality education until the age of 15.

The Educational Strategy is based on:

- An equal opportunity education: Providing public education for children aged 3 to 5, compulsory education for children until the age of 15. Public education should be available for all, and every individual should be entitled to quality education. Education will offer equal opportunities for enrolling in schools and universities including for persons with special needs.

- A quality education: Building knowledge society through quality education in the curricula, institutions and products in accordance to the national and international standards. An education oriented toward developing knowledge, attitude, information processing skills, intensive use of information technology and communications. An education that will shape the culture of an individual and provide him with critical thinking skills and moral thinking so he could live and work in a changing modern society and be capable of learning through his entire life.

- An education that contributes to social integration: Providing an education that promotes citizenship in all its aspects: national belonging, civil participation and human partnership. An education that contributes to social cohesion and provides the necessary knowledge, values and skills to coexist in a diverse society.

- An education that contributes to economic development: Offering an education that contributes to building human capital and provides skilled work force to meet the needs of the Lebanese market, with respect to quality and quantity, and ability to compete in the free labor market.

- Modernizing the Ministry and shifting it to strategic management.

The main problems within the sector:

- \*Public education is not providing equal opportunities for every student in enrollment, school attendance and success.

A large number of children aged 3 to 5 are not enrolled in schools, especially in remote regions. The enrollment rate is diminishing in the intermediary cycle (68%) af-

ter reaching saturation in the primary cycle. There is a distortion and differences between public and private schools to the benefit of the latter in the increase in repeating years, delays and drop out, there are differences among the governorates to the benefit of Beirut and Mount Lebanon and differences in the success rates in public exams between the private and public sectors. The educational system does not provide for the requirements of persons with special needs despite an acceptable enrollment rate in the secondary cycle; however these rates aren't consistent among governorates.

- \*Low education quality needs improvement in order to contribute to the building of the knowledge society: Kindergarten and primary cycle curricula are not compatible. There are problems regarding their implementation because of a lack in qualified teachers, inadequate buildings and educational materials and insufficient administrative staff at the school level. The curricula of the other cycles need continuous development as well on the basis of continuous assessment. Concerning textbooks, it is necessary to have an independent entity to develop and supervise them according to preset standards. The public education system faces serious problems in the qualification of teachers. Indeed in the primary cycle, a high percentage of teachers hold a high school diploma only, in addition to unplanned recruitment of BA holders without any educational training, in the primary as well as in the secondary cycle. Concerning buildings and equipment, the problems are numerous with respect to their availability, the adequacy and their good use in the teaching process. Lastly, there are problems at the administrative level, with regard to the preroga-



tives of the principal, unplanned recruitment conditions, lack of a system to assess performance, to train principals on leadership and educational administration.

\* Modernizing the ministry and shifting to strategic management:

The MEHE wasn't able to set the necessary frames to efficiently manage education in Lebanon and they include: policies, plans and strategies, standards, monitoring regulations, quality control frames, and means to support collaboration within the education community and between other institutions within society. The management of education suffer also from the huge number of missions ascribed to it, the conflict between units to which these missions are assigned and the lack of communication between them sometimes. Traditional ways of work are followed and failure to follow progress in modern educational management. The Ministry works toward establishing information management systems (EMIS) in a step to modernize and automate the MEHE.

A vision for the future

Promoting equal access to quality education in Lebanon that contributes to building a knowledge society, social integration and economic development.

### **Achievements in education (1992-2014)**

•An educational recovery plan was put in place in 1994, the plan was followed by new curricula for public education (finalized in the end of 2000) approved by a decree, the textbooks were printed and the teachers trained according to the new curricula implemented in 2000-2001. The first official examinations held according to these curricula took place in 2004.

•The educational strategy was achieved in the beginning of

2007; it was presented to the Council of Ministers for endorsement in 2008.

•A new organigram of the ministry complying with technological progress was prepared and approved by all the departments of the Ministry.

•A draft law that makes basic education compulsory until the age of 15 (instead of 12) was finalized and needed the ratification of the Parliament.

•Free public education for three consecutive years (2006, 2007 and 2008) was provided by a grant offered by the Kingdom of Saudi Arabia to cover elementary school tuitions and textbooks costs.

•A training program on "developing leadership skills" was achieved; it included preparing the trainer guide and training courses. It was carried out by the Ministry in 420 schools and then the program was institutionalized through the Faculty of Education at the Lebanese University and it became a continuous program.

•The MEHE was chosen to be the leading public entity to implement the Performance Based Budgeting, launched by the Ministry of Finance in 2008 to be implemented as of 2009.

•Improving and modernizing the performance of educational management and the integration of EMIS (Educational Management Information System):

•The ministry managed to computerize the official exams, and tested the process during the sessions of the academic year 2007-2008.

•1388 schools were equipped each with 2 computers and accessories in order to link these schools to the National Information Network for Education, which is under preparation now.

•The MEHE signed a cooperation agreement with the Ministry

of Defense - Geographical Affairs Bureau to integrate a GIS within the MEHE.

•The Educational Development Project (EDP) funded by a World Bank loan was completed in December 2009, achieving three of its four stated objectives: a) construction, equipment and operation of 11 public schools, b) preparation and adoption of an Education Strategy and c) restructuring and strengthening of the MEHE. Based on the success of the project, the World Bank granted the MEHE one million US dollars for the preparation of a new Education Project.

•Over the 2010 and 2011 period, in order to put the Education Development Project into action, the MEHE joined its efforts with the Educational Center for Research & Development (CERD), foreign funding sources including the World Bank, the European Union, UNDP, UNICEF and USAID, and prepared the following projects:

1-D-RASATI project: (US\$ 75 million 5-year grant by the USAID): it aims at enhancing student achievement in Lebanese public schools by developing teacher's performance, through in-service training and improving the environment of education framework and finally increasing community and parental involvement in school activities. The first phase of the program was completed between 2011 and 2013, and the following has been accomplished:

- Rehabilitation of 183 public schools and 6 training centers.
- Field survey for the infrastructure of 1282 public schools.
- Provision of scientific laboratory equipment to 238 secondary public schools and 6 training centers.
- Launching of the National ICT Strategy for Education and putting in place a procedural Action



Plan for its implementation.

- Providing training to 170 observers (from the Educational Center, Educational Inspection, Guidance and Counseling, Faculty of Pedagogy at the Lebanese University) on Class Observation Tools for teacher evaluation.

- A training-of-trainers (TOT) session was conducted on teaching methods.

- Training teachers to master the English language: A diagnostic test was carried out to determine the level of English proficiency of English teachers and the Mathematics and Science teachers in English (4061 teachers). Afterwards, the implementing body was selected to provide English language training for teachers to obtain internationally acknowledged certifications.

- Principals received leadership development training after their designation criteria were laid down.

- With regard to the School Improvement Program: An explanatory document about the program, its objectives and its phases was prepared and 20 qualified schools were selected to launch the experience. The training material for the School Improvement Program was also prepared and implemented.

2-Second Education Development Project (EDP-II) – financed by the World Bank (USD 40 million loan):

- The EDP aims at improving the quality of teaching and the learning environment in public schools and preschools, strengthening the managerial skills and enhancing the governance capacity of the MEHE.

- The loan became effective on 29 November 2012.

- All the activities were made compatible with the project's components, and their implementation plans were laid down,

alongside the timeframes and estimative costs.

- Committees were designated to plan and monitor the three components of the project.

- The training of school principals on leadership program and the component of modernization of school management were prepared.

- A study was commissioned to assess the damages and expand 110 preschools. The tender documents were also drafted, and works are expected to start in the second quarter of 2016.

- A request for the loan extension is expected to be submitted before mid-next year, knowing that the total value of commitments did not exceed US\$ 6.65 million, and the disbursements amounted to US\$5.5 million only.

3-Support of Reform in the Education sector and Management of Public Finance, in partnership with the European Union (7.7 million USD).

- The guidelines for the School Support Project were laid down.

- The School Support Project action plan targeting 50 public schools was prepared.

In August 2012, a contract was signed with the implementing firm of the project on Education of Citizenship. The preliminary report was discussed and the project's work plan was approved in February 2013.

4- UNDP's Project to provide Technical Support to MEHE:

- Administrative procedures were reviewed and simplified at: the Official Exams Department/Regional Offices/Private Education Directorate, in cooperation with OMSAR.

- A situation analysis was carried out, recommendations were proposed and procedural files for work development were prepared.

- The project was extended until February 2015.

The Syrian crisis in Lebanon is more than a crisis of displaced. The influx of around 1.5 million

Syrian displaced, to a country with a population that does not exceed 4.5 million, has placed a huge strain on the socio-economic situation which led the UN agencies and development partners, to help Lebanon mainly in his Education sector and in partnership with the Ministry of Education and Higher Education (MEHE). An Education Strategy was elaborated under the title "Reaching All Children with Education in Lebanon (R.A.C.E)". The overall objective of R.A.C.E is to ensure that vulnerable school-aged children (3-18 years), affected by the Syria crisis, are able to access quality formal and non-formal public and private education facilities in safe environments. The program has 3 components:

- 1.Ensuring equitable access to educational facilities.

- 2.Improving the quality of teaching and learning.

- 3.Strengthening national education systems, policies and monitoring.

- The Program targeted 413,000 students per year in 250 vulnerable communities with a total budget of US\$ 592,39 million for a period of three years as of 2014. The MEHE received a small part of the required funding to-date, and this part was not totally disbursed yet.

- In 1992, the CDR started a comprehensive rehabilitation operation for all public schools in Lebanon. Moreover it supplied these schools with most of their furniture and equipment. Starting 1996, the CDR reconstructed and equipped 25 public schools destroyed by the war, after it secured the necessary funds. Between 1997 and 2000, the CDR also rehabilitated two teacher training institutions.

- In 1997, in order to increase public schools capacity, the CDR was charged with the rehabilitation and expansion of a group of public schools, with funds al-

located by the Program Law No. 622/97.

- In 2001, the CDR commissioned studies for nearly 90 public schools. The works started in 2002 and continued until the end of 2008, works for around 75 schools were contracted, 59 of which were achieved, and the CDR supplied the furniture and equipment for a large number of them. It is noteworthy that for most of these schools funding was secured by grants and loans in addition to the allocations for the concerned ministry within the mentioned law program. The sources of the funding were the Islamic Development Bank, The World Bank, the Saudi Fund for Development, the Arab Fund for Economic and Social Development and South Korean government.

- The rehabilitation of schools damaged during the July 2006 war was financed by some donor countries such as Qatar, Iran, UAE, individuals, private sector institutions, or 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 most of them for schools severely damaged or destroyed during the July 2006 war.

- The CDR constructed a new building for the MEHE, gathering all its directorates and divisions in one location. The building was constructed in a way that allowed for the Ministry to follow up the progress in technology and IT. After the delivery of the new building to the Ministry, the CDR awarded a maintenance and operation contract that is being renewed whenever necessary.

The total aggregate value of contracts signed by the CDR in the education sector between 1992

and the end of 2015 amounted to US\$ 364.1 million: out of which US\$ 179.62 million from foreign sources. The total value of executed projects is US\$ 299.34 million.

Progress of work in 2015 in contracts signed before 2015:

- Additional works were receptioned at Bcharre Public School.

- Works were completed at School No.7 in Ras Beirut.

Main contracts signed in 2015

The aggregate value of contracts signed by the CDR in the Education Sector totaled US\$ 20.43 million in 2015.

Work contracts were signed for three schools located in Beirut financed by the Kuwait Fund for Arab Economic Development (KFAED): One school in Mazraa (No.28) and two schools in Ms-saitbeh (No. 21 + 2) and (No.4). The total value of the contracts reached US\$ 15.2 million. A work contract to construct a secondary school in Aley was awarded with local funds (US\$ 3.348.442), and works are scheduled for completion by February 2017. A supervision contract was also signed for the value of US\$ 133.938. The remainder of the sum of US\$ 20.43 million, focused mainly on additional site works or price adjustments of previously signed contracts, based on comparative tables.

Furthermore, the operation and maintenance contract pertaining to the new MEHE building which was renewed in May 2013 for two additional years is still in effect. The value of the contract is US\$ 2.81 million including cost of supervision.

### Main projects under preparation (2016-2018)

Lebanon received financial assistance to support the education sector after the Syrian displacement such as:

- A grant from KFAED of US\$ 4.8 for the rehabilitation of a number of public schools, to be imple-

mented by the CDR.

- A grant from the World Bank of US\$ 32 million direct to the Ministry of Education to provide education services to displaced and resident children.

Projects implemented by other funding sources are underway. Among these are the projects aimed at constructing and equipping schools in the southern suburbs of Beirut funded by the Kingdom of Saudi Arabia. Also fundraising projects are underway to collect funds for the initiation of site works at schools for which studies were commissioned locally.

The vocational and technical education

### The major problems in the vocational and technical education sector

- Absence of a unique system for secondary education: Education is still split into several paths, the general education on one hand and the vocational and technical education on the other with all their branches.

- Although the modernization of the curricula which took place in 2000 is considered a significant step forward, several factors contribute to lowering its quality, among which:

- \* Weakness of students admitted in the vocational and technical education

- \* Lack of continuous education and training for the staff led to degradation in the competencies of teachers

- \* Unavailability of the necessary technical equipment.

- \* Old methods in teaching, assessment and official exams



\*Lack of communication with the labor market and of a mechanism linking the employers with the vocational and technical education institutions.

\*Lack of student orientation especially for those who enter the vocational and technical institutions

\*Absence of quality standards and feedback.

• Higher education in the vocational and technical education sector suffers of additional problems:

\*Absence of a specific higher authority and administration different from that of the secondary education

\*No differentiation between higher vocational and technical education and secondary education with respect to the specifications of the institutions.

\*Teachers in technical institutions are inadequately classified.

\*All official exams are centrally organized and scheduled.

\*A rigid academic system that relies on official exams solely for the attribution of diplomas.

Vocational and technical education is not listed as a possible path within the higher education system in Lebanon.

Achievements in vocational and technical education (1992-2014)  
The VTE sector obtained US \$ 15 million, as a part of the first loan granted to Lebanon to implement the Emergency Rehabilitation Program (ERP) proposed by the World Bank in 1993. The CDR rehabilitated all existing vocational and technical schools

and institutions. Moreover, it procured equipment, furniture and educational materials for these institutions and provided the technical assistance needed for their administration.

•The CDR rehabilitated and equipped the administrative buildings of the General Directorate for Vocational and Technical Training.

•In 1999, the Council of Ministers approved an emergency plan to take in 2000 additional students in vocational schools; it commissioned the CDR to construct the necessary schools for them, the CDR procured the furniture and equipment for vocational schools and hotel equipment.

•A plan to develop vocational and technical training was set and a consultancy contract was awarded to provide training sessions for the teachers and principals of vocational and technical schools. In addition, to develop vocational and technical education a five-year plan was set identifying the needs of the ministry with respect to buildings, constructions, equipment and training programs according to available economic, demographic and educational data (US \$ 1,26).

•The Bir Hassan technical complex (20,000 m<sup>2</sup>), was built, costing about US \$ 8,132 million, it was financed by the AFESD. This complex includes the National Pedagogical Institute for Technical Education (IPNET), the Nursing School and the Hospitality School.

•In 2000, programs and curricula were prepared for the vocational and technical education system, they included 23 specialties in Technical Baccalaureate (BT) and 22 specialties in the Technique Supérieure (TS) (US \$ 1,5 million).

•Upon MEHE's request and after the completion of a study that aimed at identifying the regions' needs, the needed specialties and the capacity of each vocational and technical school across Lebanon, the CDR developed architectural plans for 36 vocational and technical schools to be constructed and equipped at a later stage.

Between summer 2000 and end of 2010, the CDR had signed contracts to build 27 new vocational and technical schools, and completed their construction in various Lebanese regions, with funding secured from loans granted by the AFESD, the IDB the Kuwaiti Fund (KFAED) and OPEC fund.

With a funding from the IDB, the CDR procured equipment for the educational workshops of the industrial specialties for 10 schools.

•Between 1992 and end of 2014 the total amount of the contracts signed by the CDR in the vocational and technical education sector amounted to US \$ 154.11 million of which US \$ 112.12 million were foreign financed. The estimated value of the projects achieved amount to US \$ 143.34 million.

### **Work progress in 2014 in contracts signed before 2015**

Nothing

### **Main contracts signed in 2015**

No contracts were signed by the CDR in the vocational and technical education sector.

### **Main projects under preparation (2016-2018)**

Few works still need to be completed within the framework of the program on Vocational



Schools Construction and Equipping assigned to the CDR, mainly to follow up on the construction of a number of vocational schools which were interrupted due to logistic reasons such as the inadequacy of the land or similar reasons.

### Major Challenges of The higher education

- Higher education in Lebanon suffers from serious quality problems which emanate from archaic standards used in licensing private higher education institutions and from failure to abide by what was issued later, and from the absence of structures needed to control quality in private higher education, the absence of national frameworks and structures for quality assurance. In the Lebanese University quality problems are due to the failure in adopting a reform project, the lack of needed resources and lack of autonomy for the last few decades.

- The spaces for social mix in education in Lebanon have shrunk considerably during the last few years at the levels of university student composition, university teachers associations, student unions, youth organizations, and the syndicates of teachers and educators. The problem grows larger within the Lebanese university and the public education system in general.

- The contribution of higher education to geographical mobility is limited, as the general tendency is either for settlement of students within the same region or their mobility from remote regions to specific universities in the Greater Beirut area. Expectations regarding the chances for finding a job after graduation confirm these two trends; however, the tendency to seek work outside Lebanon remains stronger than the tendency to work in other regions of Lebanon.

- The contribution of higher education to vertical social mobility is limited especially at the Lebanese University. Among the impediments of such mobility are the low quality of education, the existence of specializations that have narrow career options, and the scarcity of financial aid or other forms of students support. This mobility is also hindered by the weak academic mobility between different types of secondary education and different types of universities.

- The labor market of higher education graduates suffers from serious crisis as indicated by unemployment, disguised unemployment, migration, and decrease in the level of requirements of the graduates on the market. On the economic level, this problem is an outcome of poor growth, incapacity to create new job opportunities, degradation of professional standards in many sectors. On the educational level, the problem comes from the expansion of the higher education sector based on policies that favors political and business considerations over the quality of required learning outputs from graduates, from the absence of databases in education regarding the labor market requirements, the weakness of partnerships and communication between educational institutions and employment institutions, and finally the absence of decisive frameworks and clear efforts to develop fast training programs.

- The job market of university graduates suffers in both quantity and quality as indicated by unemployment, disguised unemployment, and immigration on one hand and the low expectations from university graduates on the other hand.

- Economically, this problem is the result of :

- 1) slow growth of the Lebanese economy and its inability to create new job opportunities

- 2) the laxity of professional standards in many of its sectors.

- Educationally, this problem is reflected

- 1) in the expansion of higher education driven by political and commercial considerations at the expense of the quality of input and of learning outcomes of graduates;

- 2) not availing databases in education regarding labor market demands;

- 3) weakness of partnership and communication frameworks between educational institutions and employment institutions,

- 4) lack of frameworks and clear efforts to develop fast training certificate programs.

- Higher education and technical and vocational education in Lebanon face serious challenges in keeping pace with the global work market and in building a competitive workforce. These problems manifest themselves in a number of areas:

- weakness of practical training;

- weakness in general preparation that enables graduates to adapt to innovations;

- weakness in aspects related to production according to international standards;

- weakness in aspects related to initiatives in establishing institutions (entrepreneurship);

- weakness in cooperation programs with international educational and employment in a specific specialization;

- the absence of quality control and quality assurance frameworks based on international standards for technical and applied university specializations;

- lack of information and studies regarding trends of supply and demand for graduates, at the regional and international levels.

The Lebanese University faces several management challenges:





- The limited authority given of the academicians;
- Lack of autonomy;
- Lack of student participation in decision making at the faculty and university levels;
- Weakness of social and professional partnerships with respect to the University's affairs;
- Absence of supporting academic management structures;
- Weakness in the use of means of communication and information ;
- The management staff lacks the necessary modern adequate management skills and specializations;
- Absence of management units for physical and human resources. However, the current organization provides an accepted level of professor's participation in the decision making process.

### **Achievements in Higher education (1992-2015)**

- The CDR rehabilitated the Faculty of Sciences at the Campuses of the Lebanese University in Hadath (1995), Fanar (1996) and the National Museum (1995) and the different branches of the National Conservatory in Beirut Central District (1995), Sin El Fil (1995) and the UNESCO palace (1998). In addition, the Higher Institute of Technology at the Lebanese University and the Faculty of Engineering at Saint Joseph University were provided with the scientific 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 Sci-

ences, 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 delivered 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 allocations assigned 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 outsourced the supervision of the operation and maintenance of the University Campus.

- The CDR prepared the tender document to purchase equipment for the laboratories of the Faculty of Science at 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 to purchase part of the equipment. Another call for tenders related to the remaining part was released in 2007.

- The CDR also provided the major faculties of the Lebanese University with information technology devices through an Arab Fund grant.

- The Unified Campus of the Lebanese University in North Lebanon: the site works of three faculties out of eight were commissioned to date: the Faculty of Engineering, the Faculty of Fine Arts and the Faculty of Sciences. 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 the Faculty of Public Health, in addition to the central library, a conference center, a guest

house, an administration building, a central car park, southern car park and a sports complex. The value of the works of the Faculty of Engineering and the Faculty of Fine Arts amounted to US\$ 50.16 million, funded by a Kuwait Fund Loan. 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 executing company. As a result, the duration of the project implementation was extended until the end of 2014. The aggregate value of the contract related to the Faculty of Sciences totaled US\$ 38.37 million, with a partial funding from the Saudi Fund. While works were scheduled for completion in the beginning of 2015, the contract was extended until February 2016.

- The architectural studies related to the construction of an Institute for Applied Sciences and the Teachers Training College in Bir Hassan were outsourced. After conducting negotiations with the French Development Agency (AFD), the Agency's Board of Directors approved to grant a EUR 21 million loan coupled with a EUR 700,000 grant to finance the project. The Council of Ministers approved the grant agreement and referred the loan agreement to the Parliament for ratification.

- The aggregate value of the contracts signed by the CDR in the sector of higher education and culture between 1992 and the end of 2015 totaled US\$ 586.44 million of which US\$ 252.96 million were foreign-sourced funding. The value of the completed projects amounts to US\$ 420.62 million.

Work progress in 2015 in contracts signed before 2015

- Following the continuous financial problems encountered with the contractor commissioned to construct 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 beginning of 2017.

-On the other hand, the CDR board of directors approved in October 2015, an addendum to the works contract of the Faculty of Sciences, of a value of US\$ 776.23, including an extension of the duration till February 2017.

### **Main projects under preparation (2016-2018)**

-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.

-Finally, efforts will be made to ratify the Council of Ministers Decision to accept the AFD loan that will permit the construction of the Institute of Applied Sciences, as well as the construction and equipment of the Teachers Training College in Bir Hassan. Then the related site works will be initiated.



Amchit Public School



Barja Public School



Antelias Public School



Amatour Public School



Beirut 80 Public School

## Main contracts signed in 2015

Culture and Higher Education				
Project	Estimated Value (US\$)	Funding Source	Start Date	Expected date for completion
Appendix No.4 to the contract related to the operation and maintenance of Rafik Hariri University Campus – Hadath	2,194,791	Local	05/02/2015	06/02/2016
Appendix No.1 to the contract related to the works of the Faculty of Sciences at Michel Suleiman University Campus – Tripoli	776,231	Saudi Fund for Development	29/10/2015	28/02/2017
Total	2,971,022			

## Main contracts under preparation in the horizon of 2016-2018

Culture and Higher Education				
Project	Estimated Value (USD)	Funding Source	Start Date	Expected date for completion
Execution of works of the Faculty of Public Health and part of the common areas of the Unified University Building – University Complex in Tripoli	33,825,000	Islamic Development Bank	November 2016	June 2020
Purchase of laboratory equipment for the Faculty of Engineering and the Faculty of Architecture at the University Campus in Tripoli	6,000,000	Islamic Development Bank	October 2016	March 2017
Construction of Public Health Faculty in Fanar Complex	25,400,000	Islamic Development Bank	December 2016	December 2019
Operation and maintenance contract for Rafik Hariri University Campus - (Reconciliation contract)	25,000	Local	10/01/2015	2018/09/30
Total	65,225,000			

## Main contracts signed in 2015

Youth and Sports				
Project	Estimated Value (US\$)	Funding Source	Start Date	Expected date for completion
Guardianship and maintenance of the completed parts of the project related to the construction of a sports field in Baalback	208,725	Local	08/07/2015	08/02/2014
Total	208,725			

## Main contracts under preparation in the horizon of 2016-2018

Youth and Sports				
Project	Estimated Value (USD)	Funding Source	Start Date	Expected date for completion
Rehabilitation of Tripoli sports field and its transformation into a sports city- Phase I	9,000,000	Local	December 2016	December 2018
Rehabilitation of Baalback sports field and its transformation into a sports city	17,000,000	Local	October 2016	October 2019
Total	26,000,000			

## Main contracts signed in 2015

Education				
Project	Estimated Value (US \$)	Funding Source	Start Date	Expected date for completion
Construction of school No. 28 in Al Mazraa (Al Bachoura Al Mamoun Street)	1,803,055	Kuwait Fund For Arab Economic Development (KFAED)	16/12/2015	15/2/2017
Construction of schools No. 2 + 21 in Al Msaytbe (Women's Prison location)	6,651,640	Kuwait Fund For Arab Economic Development	15/12/2015	14/12/2017
Supervision of the establishment of Lassa Public school	20,973	Local	29/6/2015	29/3/2016
Construction of a public high school on the plot 2430 in Aley	3,348,442	Local	19/10/2015	19/2/2017



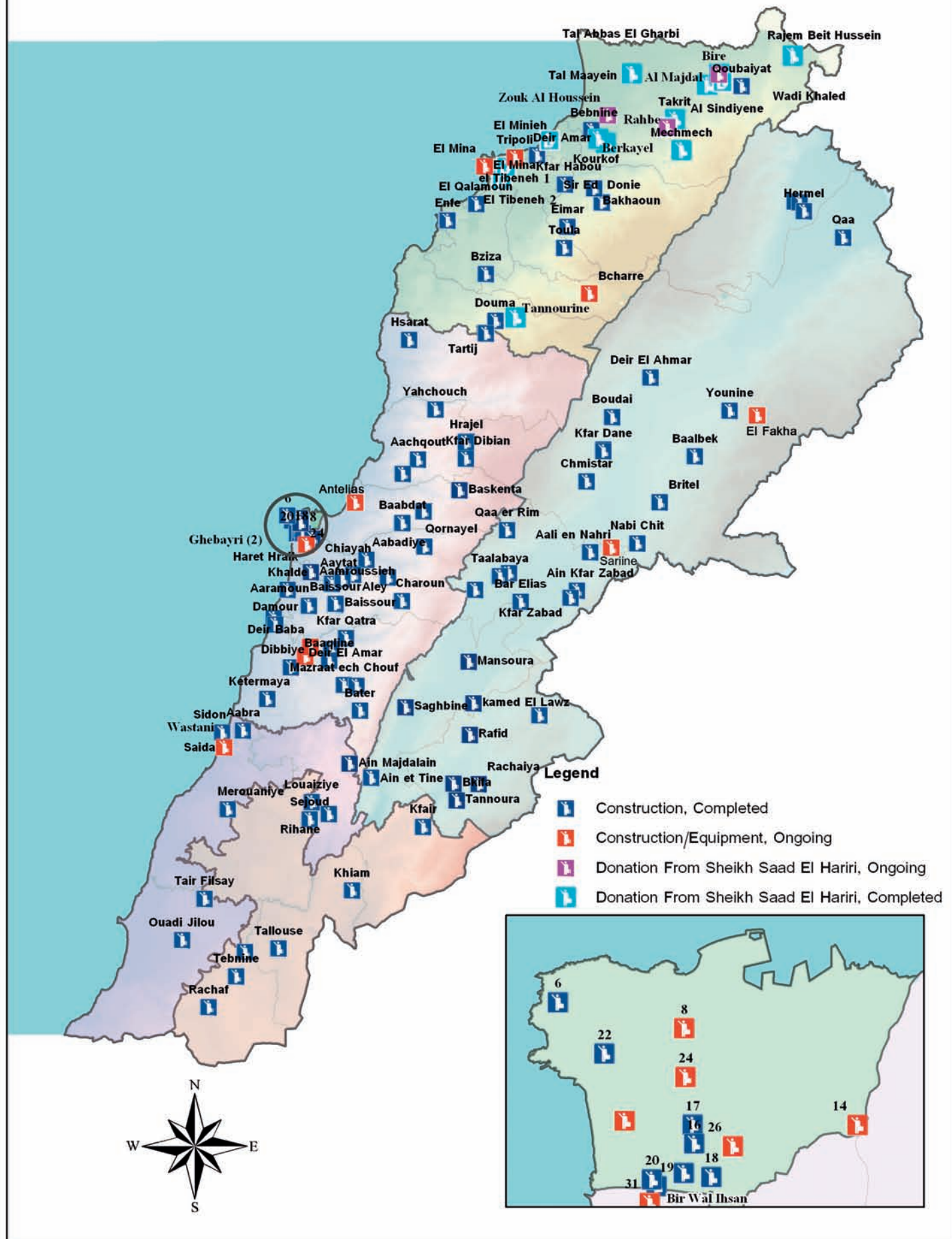
Supervision of the construction of a public high school on the plot 2430 in Aley	133,938	Local	19/11/2015	19/2/2017
Execution of works of the project related to the construction of public school No. 4 on the plot 1230 in Beirut	6,742,610	Kuwait Fund For Arab Economic Development	10/07/2015	30/11/2017
Supervision of the construction of public school No. 4 on the plot 1230 in Beirut	56,400	Kuwait Fund For Arab Economic Development	10/07/2015	2017/11/30
Total	10,302,362.70			

### Main Projects under preparation in the horizon of 2016-2018

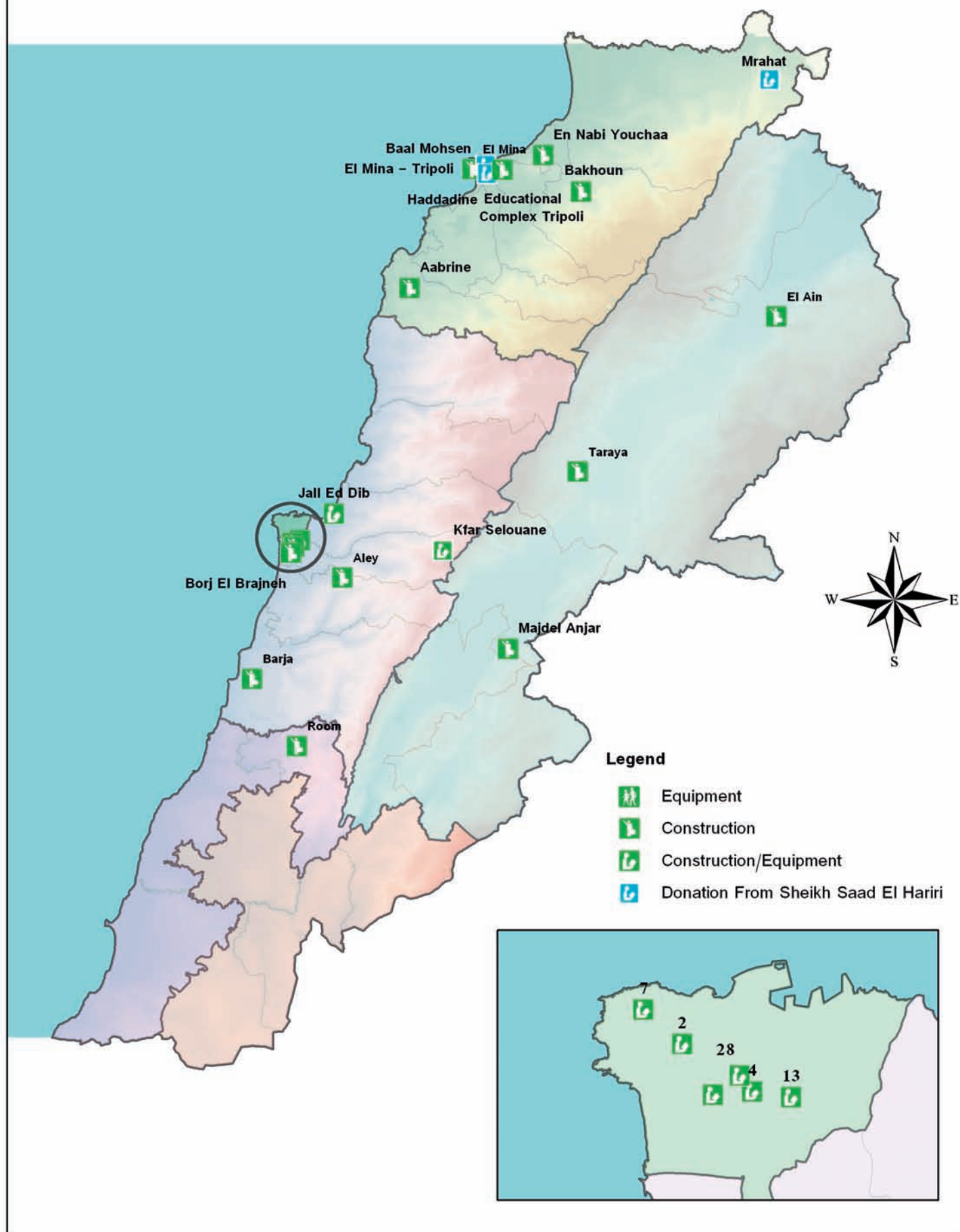
Culture and Higher Education				
Project	Estimated Value (US\$)	Funding Source	Start Date	Expected date for completion
Works for the construction of a new building for the Teachers Training Center in Bir Hassan and another independent building for the Institute of Applied Sciences	18,000,000	French Development Agency	September 2017	September 2019
Construction of a public school in Kfarselwan	2,000,000	Local	March 2017	May 2018
Construction of school No. 13 in Ashrafieh	12,422,000	KFAED	February 2017	May 2020
Construction of 2 public secondary schools in Hadath	7,000,000	Saudi Grant	April 2017	Oct 2018
Renovation and provision of equipment to Batloun public secondary school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Barja public secondary school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Aanout public mixed intermediate school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Kafarkoud public intermediate school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Kafarmatta public mixed school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Sahel Aalma public school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Hermel public intermediate school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Aarsel first public school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Ras Baal-back public intermediate school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment Nabha public intermediate school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Younin public intermediate school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Jebshit public secondary school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Jbaa public elementary school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Hamad Ghandour public intermediate school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Kfarrouman second public school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Ayn Qanya public school	240,000	KFAED	September 20016	March 2017
Rehabilitation and provision of equipment to Mohammad Zaarour mixed public school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Rawdat Al Badawi mixed public school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Sir mixed public school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Rawdat Burj Abi Haydar public school	240,000	KFAED	September 2016	March 2017
Rehabilitation and provision of equipment to Kfartoun public school	228,571	KFAED	September 2016	March 2017
Rehabilitation of Aarsal public secondary school ( renovation of the building, installation of metal fence, ceiling and doors for the warehouse)	100,000	Displaced Syrian Relief Initiative - AFESD	March 2017	September 2017
Purchase of equipment for Aarsal Third Public intermediate school	50,000	Displaced Syrian Relief Initiative - AFESD	March 2017	September 2017
Total	44,600,571			



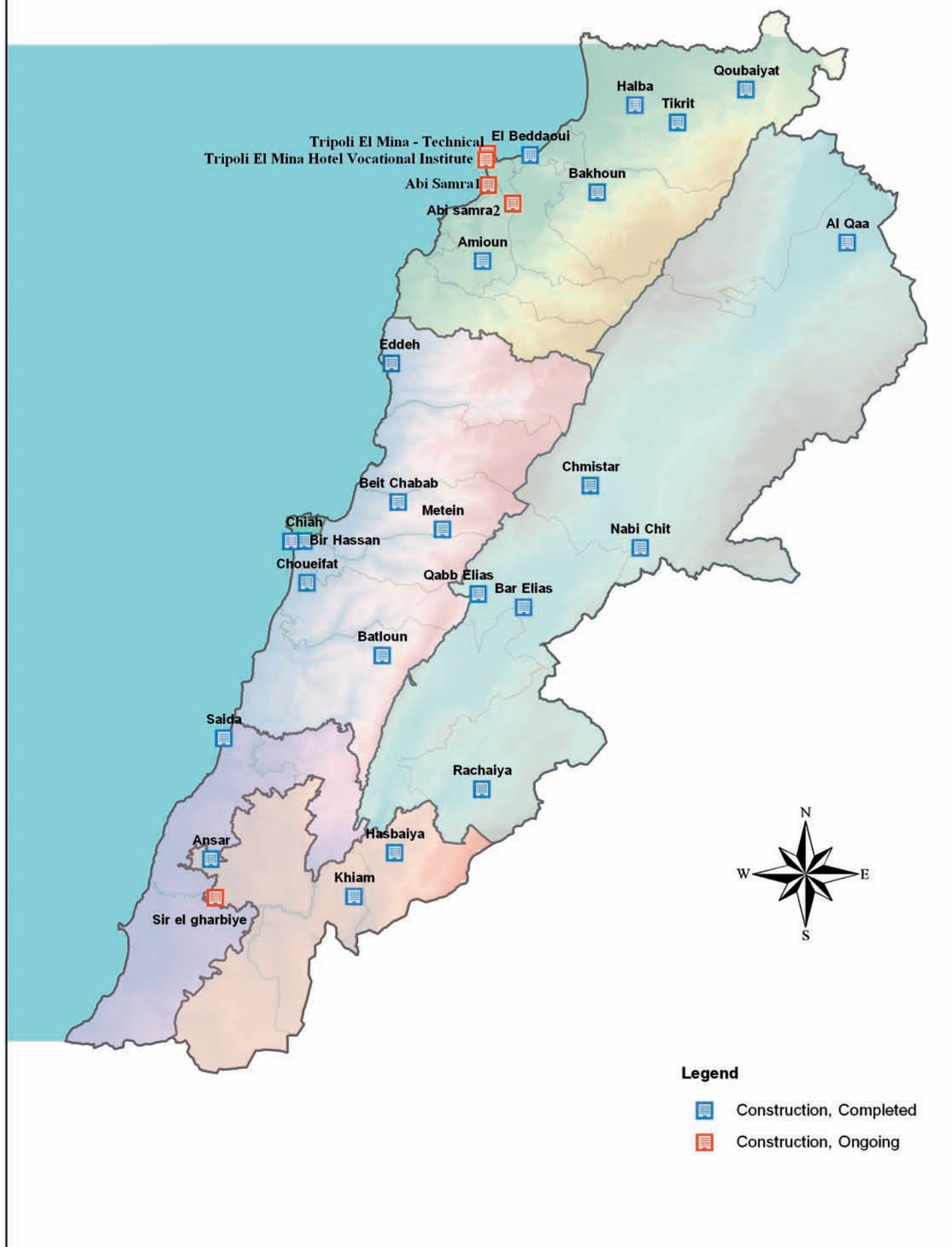
# Public Schools Completed & Ongoing Projects



# Public Schools Projects Under Preparation

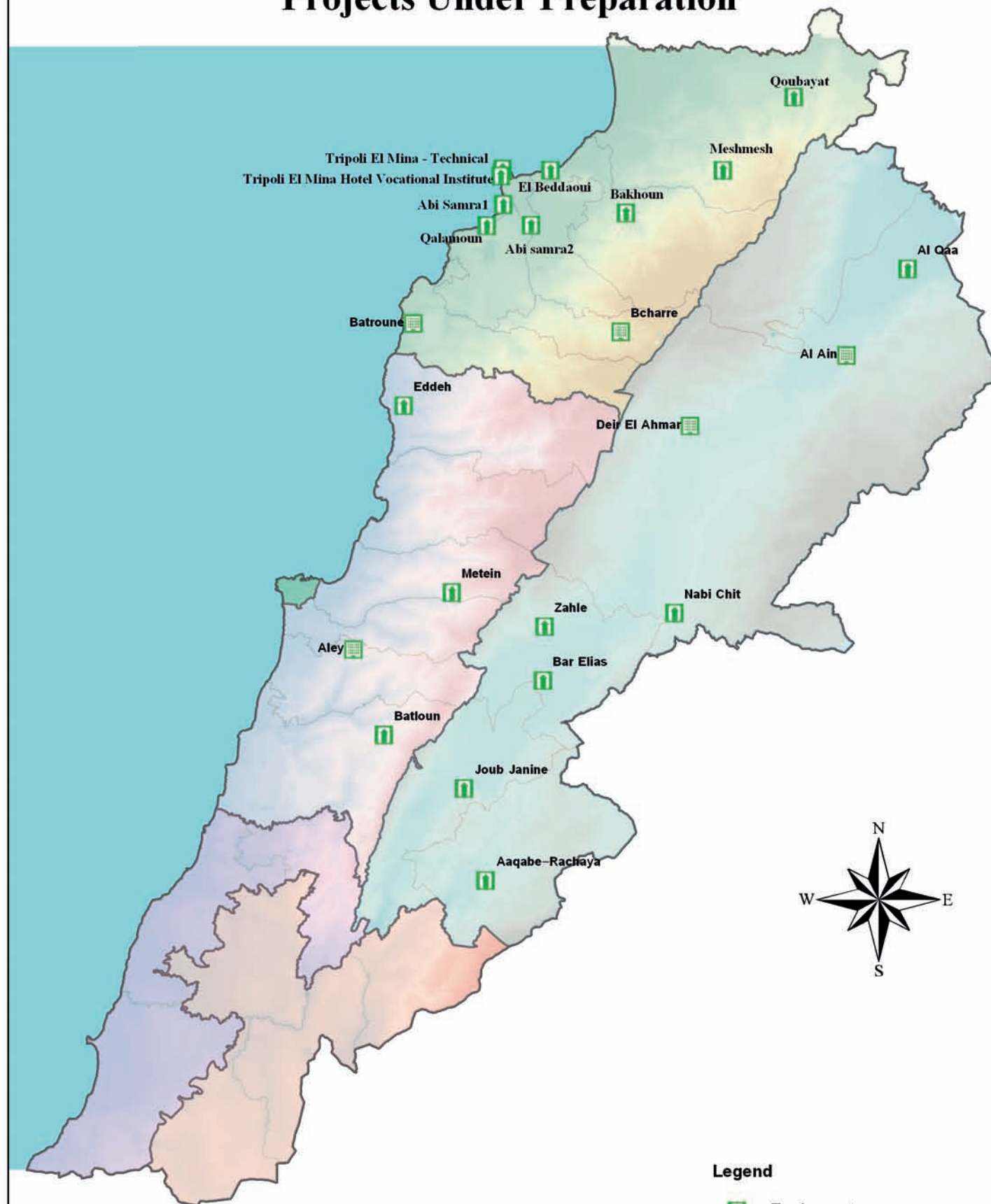


# Vocational & Technical Schools Completed & Ongoing Projects





# Vocational & Technical Schools Projects Under Preparation



## HEALTH

### 1-Analysis of Current Situation

The Lebanese government, represented by the Ministry of Public Health (MoPH), continues to make significant efforts to support its institutions and strengthen the public health sector role in providing fair access to quality health services and addressing the economic and social determinants of health. However, the private sector predominates over 85% of hospital beds with a hospitalization rate of 17%, covered by medical insurance. Also, most emergency services are either provided by the private sector or by private clinics.

Most of the primary health care services are provided by health centers managed by civil entities, where only 5% of the public health sector expenditures are allocated to primary health care services. In fact, the use of primary health care network is very shy, but seems to be stimulated by free medicines. This is therefore a clear indication that the current spending is inefficient, because the majorities of the revenues of the health sector derive from preventive care and primary care rather than curative care.

Nevertheless, the Ministry planned to introduce the assessment of the performance of primary health care centers, and attempts were made to implement the obligatory referral system which starts at health centers and ends at hospitals.

There are six public health funds covering 38% of the population, while 8% are covered by private insurance companies. As for the remaining 54% of the population, it is the Ministry of public Health that covers their high-cost hospital based care and pharmaceutical care. The fragmen-

tation of funding and the weak control over the private market constitutes a serious obstacle for MoPH and public insurance funds in obtaining good prices for health services bought from the private sector.

MoPH spends 87% of its budget on hospital and pharmaceutical care; however the main percentage of health funding is secured by household budgets constituting nearly 66% of the total health spending, which weigh heavily on low income individuals.

MoPH launched several initiatives aiming at improving the management and quality of health services, namely the classification of hospitals and the establishment of advanced primary health centers. Initiatives also included the Public Hospitals Autonomy Law, the project on Child and Mother Health in the Akkar region, the establishment of the Control Program for Tuberculosis, the National Program against AIDS, and the National Program for respiratory infection programs. Efforts were also made to set up and implement programs about health awareness and medical staff training in both private and public sectors.

Attempts to improve health information systems were also made, including several national studies (household spending study and health accounts study).

The major reforms of the health sector carried out by the Ministry of Public Health, in order to control health expenditures, provide efficient and equal health services, reduce the burden on families, control over consumption and reduce medicines prices while ensuring quality services and boosting primary health care services at a reasonable cost, are summarized in the below goals:

- Rationalizing the public expenditures by consolidating the multiple insurance coverage funds.
- Supporting and developing a

comprehensive health strategy through the contribution of public sector in health funding.

- Improving the health system performance in various regions through better allocation of resources of both public and private health sectors, in addition to providing sustainable development of the health coverage system.

- Supporting MOPH capacities in controlling health services quality and rationalizing the Lebanese health sector financing, to cutback the cost of healthcare in proportion to GDP.

- Improving the provision of health services - especially primary health care, which is the cornerstone for the improvement of citizens' health status and make them an alternative for private sector services, including consultations, medications, and tests, accessible to low-income citizens.

- Regulating the quality of pharmaceutical products and decreasing the medication bill.

### 2-Main achievements (1992-2015)

2.1 - Health sector policy studies and technical assistance:

- Lebanon's Health Map Study.
- Hospital classification Study (phases I and II), that resulted in the classification of Lebanese hospitals in line with the standards set by the Ministry of Public Health (MOPH).
- Medical protocol study for the majority of surgical procedures covered by MOPH in public and private hospitals.
- Hospital Autonomy study (phase I), pertaining to the formation of autonomous management boards for public hospitals. The Law on Hospital Autonomy implemented in all newly established hospitals, with regard to their financial and administrative structures.

2.2 - Within the framework of

the reform strategy adopted by MOPH, the following major achievements were carried out:

- Elaborating a new modern management system for MOPH is awaiting a relevant draft law.
- Creating a unified database for beneficiaries of health coverage of different insurance funds, which helped put an end to duplication in offering public services. Automation and decentralization were also adopted for the issuance of hospitalization cards through the establishment of automated centers in all cazas linked with the central database.
- Establishing a primary health-care network in cooperation with the civil society which provided a package of comprehensive services to citizens, especially in deprived areas.
- Reviewing the medicines registration system and adding new requirements by MOPH, such as the issuance of analysis certificates from internationally recognized laboratories. Also new guidelines for medicine pricing were adopted.
- Conducting several workshops and drafting remedial protocols, which improved the level of primary healthcare services.
- Working towards adopting the health card which has become a symbol of an efficient and fair health system.
- Enhancing the primary health care through the expansion of the network of primary health care centers: 28 additional health care centers were constructed and completed across all Lebanese regions. These projects were funded by several donors among which:
  - A grant by the Kuwaiti government, to finance the establishment of eight (8) health centers.
  - A grant by Prince Al Waleed Bin Talal, to finance the establishment of eight (8) health centers.
  - A World Bank loan, to finance the renovation and equipping of eight (8) health centers.
  - The Lebanese government renovated three (3) health centers, which were also supplied with

necessary equipment with a financial assistance from the Italian government.

- Beirut Governmental University Hospital (BGUH) works were completed (540 beds) and the construction of four (4) new public hospitals was also completed in the following regions: Nabatiyeh (75 beds), Tannourine (40 beds), Rashaya (40 beds) and Sir al Danniyeh (40 beds). These four hospitals are fully operational now.
- The rehabilitation and expansion of Tibnine Governmental Hospital (75 beds), as well as the rehabilitation of Jezzine hospital (40 beds), Hasbaya Hospital (40 beds), and Marjeyoun Governmental Hospital (40 beds) were completed.
- Three (3) new public hospitals were constructed: Halba hospital (75 beds), Sibline Hospital (75 beds) and Hermel hospital (75 beds). These three hospitals are fully operational now.
- The expansion and rehabilitation works of four (4) governmental hospitals were completed within the framework of the health sector reform project. These are: Tripoli, Baalbek, Shahhar el Gharbi and Dahr el Basheq hospitals.
- Zahlé Hospital: (125 beds): works in Zahlé Hospital were completed through a grant provided by the Kingdom of Saudi Arabia and the Islamic Development Bank (IDB).
- Saida Hospital (125 beds): works in Saida Hospital were completed through a grant provided by the Kingdom of Saudi Arabia and the Islamic Development Bank (IDB).
- Ftouh Keserowan Hospital (75 beds): construction and installation of equipment were completed with the financial assistance of OPEC Development Fund and the Islamic Development Bank (IDB).
- BintJbeil Governmental Hospital: the installation of equipment was completed in 2009, with a grant provided by the government of Qatar.

•Completion of Phase II of Jezzine Governmental Hospital (40 beds): installation of equipment was completed in 2011. The hospital is operational now.

•Specialized Hospital for the treatment of war and accident casualties in Saida: This hospital was established in Saida, financed by US\$ 20.00 million grant from the Turkish government. Works started in August 2009 and ended in February 2011. The Turkish government was in charge of implementation in collaboration with the Council for Development and Reconstruction (CDR).

•Becharreh Governmental Hospital: The CDR rehabilitated and equipped the Becharreh Governmental hospital through a grant offered by the Kingdom of Saudi Arabia. The CDR is currently completing the renovation of the annex building of the hospital, with local funds. Phase I of this project started in May 2014 and are expected to end during the first half of 2016.

•Rehabilitation and provision of equipment to Tibnine Governmental Hospital (75 beds)-Phase II: rehabilitation works, funded by a Belgian government grant, started in February 2009 and ended in June 2011. On the other hand, installation of equipment started in April 2009 and ended in June 2011, with funds offered by the IDB and the Belgian government (part of the Belgian grant). Additional works were completed in January 2014, and the hospital has been operational since September 2011.

•A field hospital of 40 beds was constructed and equipped in Miniyeh with a grant from the Kuwaiti Red Crescent. Execution works started in November 2009 and ended in July 2011.

•Rehabilitation of Orange Nassau Governmental hospital in Tripoli, funded by a grant from the Kingdom of Saudi Arabia,





started in May 2009 and ended in April 2012. The hospital was equipped through a grant offered by the Government of the People's Republic of China and another by the government of Kuwait.

- Rehabilitation and completion of equipping Baabda Governmental Hospital: Phase I rehabilitation and equipping of Baabda Governmental hospital started in February 2012 and ended in June 2013, with the financial assistance of the IDB. In 2015, Phase II rehabilitation works started through an Italian Government Grant.

- 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 mid-2017, after securing the necessary funds. At a later stage, budget allocations will be sought to fund the second phase of construction and the purchase of medical appliances and equipments.

- The MOPH new building was constructed in phases depending on local available funds. Construction works started in September 2010 and were completed end of 2015.

- Laboueh Health Center: the Laboueh Health Center was constructed and equipped between 2007 and 2011. A bid is expected to be launched in 2016 to supply the Center with additional medical equipment, after securing the needed funds are secured.

- Construction and equipping a dispensary with necessary equipment in Batroun with a financial assistance from former Prime Minister Saad Hariri.

- Rehabilitation of Saida and Kherbet Kanafar Health Centers: The Saida Health Center and part of Kherbet Kanafar Health Center were rehabilitated with a financial assistance from the Government

of Lebanon and the government of Greece. Execution works started in January 2011 and ended in April 2013. The supply of two centers was completed with equipment in September 2013.

- Rmeich Health Center: Medical equipment and tools and furniture were purchased for Rmeich Health Center with a financial assistance from The Islamic Development Bank (IDB).

### 3- Main projects under preparation:

- Construction and equipping of the Beirut Governmental Hospital/Qarantina new building: a detailed study was developed to transform the Qarantina Hospital – by decision of the Ministry of Public Health- into a public hospital with a specialized Child Care Division. The project was awarded end of 2015, the construction works are scheduled to begin in April 2016 for a period of two years. Also the environmental impact study of the project was elaborated and the final version was submitted to the Ministry of Environment for approval.

- Sibline Governmental Hospital: Preparations are underway for Sibline Governmental Hospital new building. Works are expected to start as of September 2016 for a period of two years.

- Maifouq Governmental Hospital – Phase I: Construction works at Maifouq Governmental Hospital was launched in March 2015 with local funds. Phase I works are expected to be completed in September 2016. At a later stage, budget allocations will be sought to fund the second phase of construction and the purchase of medical equipments and furniture.

- Within the framework of improving the quality of public services in the Lebanese regions hosting Syrian refugees, preparations are underway to develop a project to support 14 emergency wards in public hospitals, and to rehabilitate and equip around 19 health centers across differ-

ent Lebanese regions, through a financial assistance from the Kuwait Fund for Arab Economic Development. Execution works are expected to start mid-2016 and to be completed within two years.

- Rashaya Governmental Hospital: Preparations are underway for Rashaya Governmental Hospital new building. Execution works are expected to begin during 2016.

- Sour Governmental Hospital: The CDR is currently amending the tender document of the project on the construction and equipping of a new Hospital in Sour (75 beds). Execution works are expected to begin during mid-2016, and will be funded by the Lebanese Government and the Islamic Development Bank (IDB).

- Sarafand Governmental Hospital: The study pertaining to the construction and equipping of the Sarafand Governmental Hospital was elaborated and the related bid will be launched once the Council of Ministers' approves the allocation of the facility to the benefit of the Ministry of Public Health.

- Construction, renovation and equipping of health centers with the financial support of the Islamic Development Bank: A consultant will be commissioned to develop the study and the tender document related to the project aiming at establishing health centers in Khalwat, Damour and Ghobeiry in addition to the rehabilitation of Jbaa health center.

- Rehabilitation and equipping of the Cazas' Health District Offices with the financial support of the Islamic Development Bank: A consultant will be commissioned to develop the studies and the tender documents related to the project aiming at rehabilitating and equipping five health centers in the Cazas of Batroun, Sour, Saida, Hasbaya and West Bekaa. Execution work is expected to begin during 2016.



Karantina Public Hospital



Tyre Hospital



Sarafand Hospital

## Main contracts awarded in 2015

Project	Contract Value (US\$)	Source of Funding	Start Date	Estimated Date for Completion
Rehabilitation of Baabda Governmental Hospital – Phase II	4,000,000	Italy (Grant)	October 2015	May 2017
Construction and equipping of Maifouq Hospital – Phase I	3,172,266	Lebanese Government	March 2015	November 2016

## Main projects under preparation during the period (2015-2017)

Project	Contract Value (\$US)	Source of Funding	Start Date	Scheduled Completion
Construction and equipping of Sarafand Governmental Hospital	13,000,000	IDB Lebanese & Government	September 2015	September 2018
Construction and equipment of Sour Governmental Hospital	17,000,000	IDB Lebanese & Government	October 2016	March 2019
Rehabilitatiion of Beirut/Qarantina Hospital	15,540,000	IDB Lebanese & Government	June 2016	December 2018
Rehabilitatiion and equipping of health centers	2,625,000	Kuwait Fund for Arab Economic Development Lebanese & Government	November 2016	December 2017



# Public Health Completed, Ongoing & Under Preparation Projects



## SOCIAL AND ECONOMIC DEVELOPMENT

### Integrated Regional Development Projects

Economic and Social Fund for Development (ESFD)

The Economic and Social Fund for Development (ESFD) contributes towards social development in Lebanon and acts as a permanent entity whose mission is to alleviate poverty and enable access to adequate social services. The ESFD reaches out to the underprivileged to improve their welfare and create job opportunities for Small and Medium Enterprises (SMEs), with the aim of reducing unemployment and calling upon a balanced economic growth.

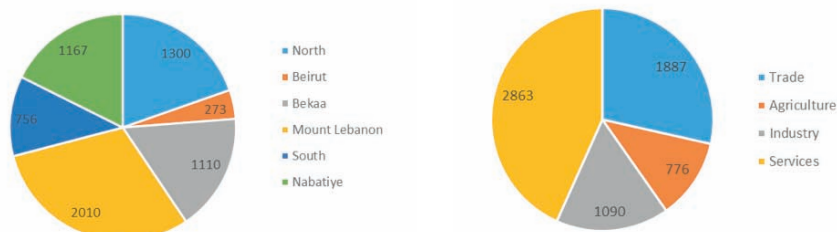
#### First: Job Creation and Income Generation Component

The Job Creation unit finances SMEs nationwide, across multiple sectors for the purpose of job creation. The Job Creation unit provides business loans through 5 partner commercial banks with a huge network of branches.

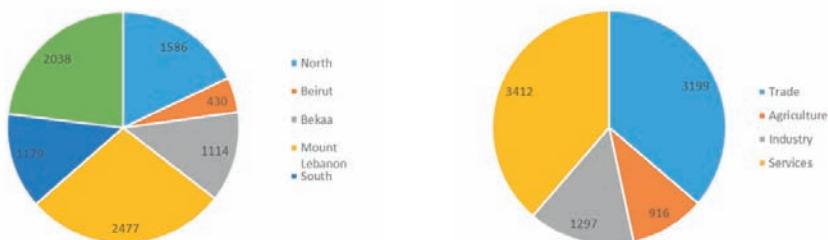
In 2015, the ESFD offered financial support to SMEs to carry out 525 projects and programs, which led to the creation of 467 new jobs.

From 2003 till end 2015, the ESFD financed 8,824 projects and created 6,616 jobs.

Distribution of job opportunities by Sector and Governorate until end 2015



Distribution of loans by Sector and Governorate until end 2015



#### Business Consulting Services

The ESFD provides business advice services (BDS) to guide and advise individuals and SMEs across all Lebanese regions to help them access credit facilities to expand their businesses, or start a new business from scratch. These business advisors assist SME owners in preparing a sound business plan, a cash flow forecast and help prepare supporting documents to ensure that applicants are in the best possible position to receive funding from a bank collaborating with the Fund. These business experts also follow up on the implementation of these business projects.

In 2015, the ESFD relied on a team of 13 Business Advisors to offer Business Consulting Services, which contributed to the financing of 265 projects and the creation of 236 new jobs.

#### Second: Local Development and Livelihood Component

The year 2015 represented a turning point in the quantity and quality of development projects carried out by the EFSD. While continuing to implement Community Development projects, built on a participatory approach in planning and projects identification in Lebanon's most deprived regions, the Fund expanded its interventions since 2014 to include the Syrian refugees host communities, thus reducing the repercussions of the Syrian crisis, with emphasis, on infrastructure and jobs. Below are summarized the major projects carried out by the EFSD in 2015 in the field of societal development and support to Syrian Refugees host communities, which resulted in the improvement of infrastructure and the support of local economies.

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

Within the framework of the funding agreement aimed at "Supporting local development in North Lebanon" signed between the European Union and the Lebanese Government, a EUR 2,9 million grant was allocated to support local development in the regions of Akkar, Hermel and Danniyeh.

In June 2012, priority development projects were identified

and nine grant contracts were signed. These projects were carried out by local communities, while the ESDF provided oversight over the implementation and supervised the bidding and contract awarding processes, to ensure that criteria and specifications are adhered to.

By the end of 2015, the Development Unit had implemented eight grant contracts of an aggregate value of EUR 2,596,242 million in eight clusters of villages and

municipalities in Akkar, Danniyeh and Hermel.

Below are summarized the projects that have been completed and delivered within the context of the above mentioned grant contract:

Below are summarized the projects that have been implemented to date:

Project title	No. Of beneficiaries	Total value in EUR
North Hermel remote villages cluster 1. Installation of drinking water networks and digging wells in the remote villages of North Hermel	29,700	315,000,00
South Hermel remote villages cluster 1. Supply of drinking water in the villages of Wadi El Ratl and Turkman 2. Provision of agricultural machinery and equipment to three agricultural cooperatives Total	28,200	200,000,00 60,000,00 260,000,00
Beit Younes (Akkar) 1. Rehabilitation of irrigation canals in Mechmech, Qaryat, Beit Ayoub 2. Provision of trash collection trucks and street cleaning vehicles to the municipalities of Beit Youness and Qorneh	34,240	195,100,00 74,900,00
Total		270,000,00
Hrar (Akkar) 1. Rehabilitation of irrigation canals in the villages of Qabiit, Houaich, Khreibet el Jerd and Habchit 2. Establishment of an educational support center in Hrar Public School 3. Renovation of the municipal hall	22,284	290,300,47,700 47,700,000 14,000,000
Total		352,000,00
Danniyeh (Danniyeh District) 1. Supply of drinking water to the villages of Debeel, Korhaya and Asyarmout 2. Organization of training workshops targeting local associations 3. Provision of equipment to a primary health care centre in Kfarbanin 4. Rehabilitation of a playing field in Qmamin public school	15,300	194,683,33 9,750,00 55,328,33 40,238,34
Total		300,000,00
Wadi Khaled (Akkar) 1. Provision of equipment to the health centres belonging to the network of the MoPH and MoSA in Hisheh and Amayer 2. Conducting expedited vocational training and school support	39,638	274,025,00 135,205,00
Total		409,230,00
Mashta Hassan (Akkar) -Equipping of primary health care center	22,400	250,000,00
Dora (Akkar) -Installation of a sewage network and a wastewater treatment station	4,100	440,012,00
General Total		2,596,242,00



The project aimed at constructing a solid waste treatment plant in Fneideq-Akkar is still underway within the same context at a value of EUR 394,000. Works are scheduled for completion by end of February 2016.

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

In September 2013, the ESDF launched a new project funded by the EU and entitled “Support to Municipal Finance in Lebanon – MUFIN”, to reduce the burdens of Syrian refugee influx on local host communities.

The EUR 16 million project targets the municipalities of local communities hosting the highest percentage of Syrian refugees in the North and the Bekaa. The project aims at improving the level and quantity of basic services rendered by these municipalities, through the implementation of drinking water, waste water and solid waste infrastructure projects. Below are listed the projects carried out by the Fund in the Bekaa and the North for a value of EUR 11,754,503,85.

#### List of MUFIN projects in the Bekaa:

Local Community	Project	Number of Beneficiaries	Estimated Value (in Euro)
Kaa	Provision of trash collection vehicles to the Municipality	17,700	137,110
Gaza	Expansion of wastewater network and connecting it to the wastewater treatment plant in Jib Janin	26,500	241,109
Souairi	Construction of drinking water reservoir and connecting it with the general network	12,500	211,000
Dalhamieh	Procurement of solid waste collection trucks	8,700	64,505
Hermel	Installation of sewage network and waste water treatment plant	36,500	3,000,000
Bar Elias	Construction of solid waste treatment plant	166,500	4,000,000
El Marj			
Kab Elias			
Saadnayel	Rehabilitation of water distribution network	34,000	7,000,000

#### List of MUFIN projects in the North of Lebanon

Local Community	Project	Number of Beneficiaries	Estimated value (in Euro)
Tripoli/Qobeh	Digging and installation of artesian well in Qobbeh and connecting it with the general network	185,394	194,467,60
Menieh	Providing the municipality with trash collection vehicles	100,000	198,220
Baddaoui	Providing the municipality with trash collection vehicles	44,000	67,706
Kfartoun -Akroum	Digging and installation of an artesian well	7,500	196,992,80
Qonnieh	Renovation of existing artesian well and construction of propelling line	2,350	135,083,45
Mouhamara	Digging and installation of an artesian well and expansion of the drinking water distribution network. Construction of a new underground reservoir and a water cistern	41,500	400,00091
Sahle	Renovation of existing artesian well and underground reservoir and construction of propelling line to the reservoir. Construction of water network in the new area of the village	2,020	191,166
Wadi Khaled villages cluster	Rehabilitation Nabaa el Safa station and transmission of water from this station to villages and towns of Wadi Khaled	51,291	1,573,525.62

In addition to the above-mentioned projects that the Fund continues to implement, the Fund continued to implement 100 small projects of a value of EUR 2.2 million, to support small municipalities across all Lebanese districts, in the field of drinking water, wastewater and solid waste.

Below are listed the small projects implemented by the Fund in the field of drinking water, wastewater and solid waste

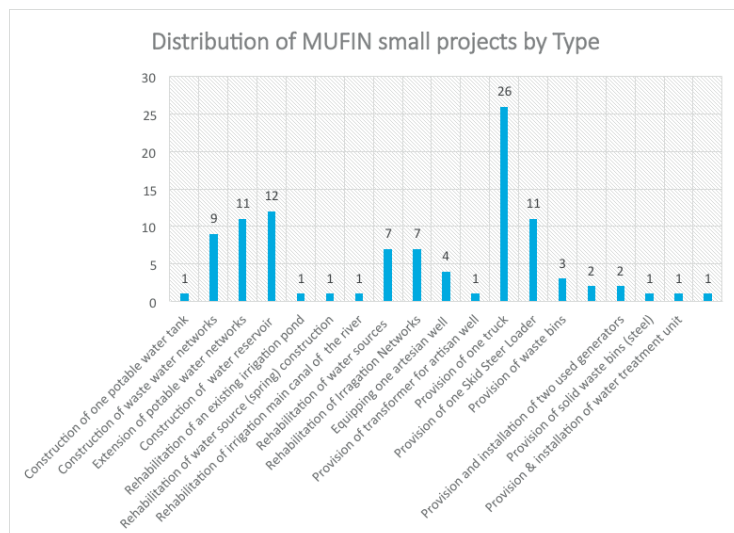
	District	Village	Project Title
1	Batroun	Kfarhe	Procurement of Pick-up truck
2	Batroun	Edde	Procurement of Pick-up truck
3	West Bekaa	Zlaya	Procurement of Pick-up truck
4	West Bekaa	Tal Zanoub	Completion of wastewater network
5	West Bekaa		Completion of drinking water network
6	West Bekaa	Baloul	Completion of wastewater network
7	Chouf	Deir Kousha	Renovation of water sources and installation of necessary water supply pipes
8	Chouf	Kneiseh	Rehabilitation of the village historical water fountain
9	Chouf	Harat Jandal	Installation of a drinking water supply pipe from the village source to the village reservoir
10	Chouf	Mazraat Al Dahr	Installation of artesian well
11	Koura	Bednayel	Construction of water reservoir
12	Koura	Ijd Aabrin	Renovation of the village water spource
13	North Metn	Kfar Aqab	Procurement of Skid Road Loader
14	Minnieh - Danniyeh	Kfarshlan	Procurement of solid waste bins
15	Minnieh - Danniyeh	Bouhayta Afqa and Bachnata	Rehabilitation of the drinking water network
16	Nabatiyeh	Aaza	Rehabilitation of the existing well which alimnts the village's reservoir
17	Nabatiyeh	Zawtar El Charkieh	Rehabilitation of water sources
18	Nabatiyeh	Yohmor Chqif	Construction of the village water reservoir
19	Hermel	Mazraat Sajid	Procurement of Skid Road Loader
20	Baabda	Qortada	Procurement of Pick-up truck
21	Baabda	Jouret Arssoun	Constructin of drinking water treatment station
22	Baabda	Al Khraibeh	Procurement of Pick-up truck
23	Baabda	Deir El Harf	Procurement of Skid Road Loader
24	Baabda	Aarbaniyeh	Rehabilitation of water sources
25	Baabda	Taybeh	Installation of artesian well
26	Baalback	Qoleileh and Harfouche	Procurement of Skid Road Loader
27	Baalback	Mazraat Al Souaidan	Construction of water reservoir
28	Baalback	Hoch Barda	Cancelled
29	Baalback	Koussaya	Procurement and delivery of metal solid waste bin
30	Baalback	Qarha	Procurement and installation of power generator to aliment the village's well
31	Baalback Hermel	Al Khoraibeh	Construction of water reservoir
32	Bint Jbeil	Faroum	Procurement of solid waste bins

33	Bint Jbeil	Ain Ebel	Rehabilitation of irrigation canals
34	Jbeil	Edde	Procurement of Pick-up truck
35	Jezzine	Qattin and Haidab	Procurement of Pick-up truck
36	Jezzine	Sabbah	Renovation of the village water fountain
37	Jezzine	Rimat and Chqadif	Procurement of Pick-up truck
38	Jezzine	Bteddine el Loqsh	Renovation of the village wastewater treatment station
39	Jezzine	Qaitouleh	Procurement and installation of drinking water treatment station
40	Hasbaya	Kawkaba	Completion of waste water network
41	Hasbaya	Kfarhamam	Procurement of Pick-up truck
42	Hasbaya	Rashaya Al Fokhar	Completion of water reservoir construction
43	Hasbaya	Almari and Mjaidiyeh	Procurement of Pick-up truck
44	Hasbaya	Khalwat	Completion of the village waste water network
45	Hasbaya	AL Kafir	Procurement of Pick-up truck
46	Hasbaya	Kfarchouna	Procurement of Skid Road Loader
47	Hasbaya	Ain Qenyeh	Procurement and delivery of plastic solid waste bins
48	Hasbaya	Mimass	Procurement of Pick-up truck
49	Hasbaya	Hbariyh	Rehabilitation of agricultural pond
50	Hasbaya	Chebaa	Completion of the village waste water network
51	Hasbaya	Chwaya	Construction of water reservoir for the village
52	Rashaya	Kfarqouq	Construction of water reservoir for the village
53	Rashaya	Ain Arab	Construction of water reservoir for the village
54	Rashaya	Ain Jarfa	Completion of waste water network
55	Rashaya	Bakka	Completion of waste water network
56	Rashaya	Aaiha	Rehabilitation of water collection pond and construction of water reservoir
57	Rashaya	Kfardaniss	Well rehabilitation and reservoir construction
58	Rashaya	El Bireh	Well rehabilitation and reservoir construction
59	Zahle	Meksse	Rehabilitation of irrigation canals
60	Zgharta	Bnachii	Completion of waste water network
61	Sour	Hannieh	Procurement of Pick-up truck
62	Sour	Nfakhieh	Procurement of Pick-up truck
63	Sour	Tayr Falsse	Completion of drinking water network
64	Sour	Houmaira	Procurement of Pick-up truck
65	Sour	Yaryin	Completion of drinking water network
66	Saida	Aabra	Procurement and installation of a power generator to aliment the village's well
67	Saida	Kfarbeit	Procurement of Pick-up truck
68	Saida	Tanbourit	Procurement of Road Sweeper
69	Saida	Aadoussiyeh	Procurement and installation of a power generator

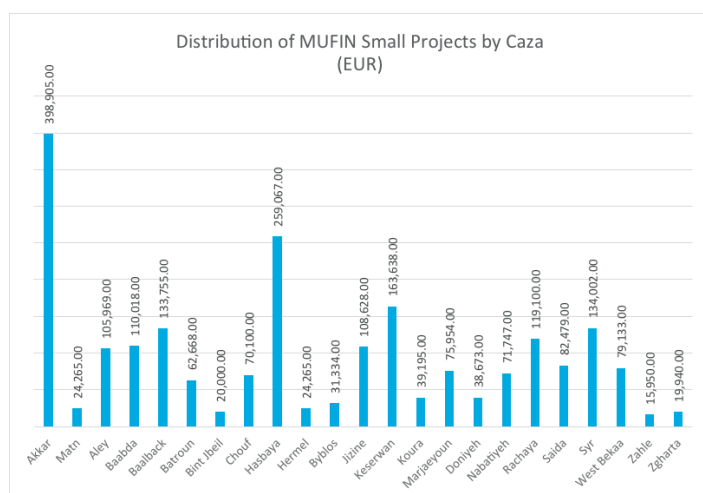


70	Aley	Ain El Sayde	Completion of wastewater network
71	Aley	Bouzraideh	Rehabilitation of irrigation water dam and installation of canals
72	Aley	Rajmeh	Procurement of Pick-up truck
73	Aley	Sarhamoul	Procurement of Skid Road Loader
74	Aley	Remhala	Procurement and delivery of metal solid waste bins
75	Akkar	Ouyoun el Ghezlan	Procurement of Pick-up truck
76	Akkar	Al Fard	Procurement of Pick-up truck
77	Akkar	Bani Sakhr	Procurement and installation of power generator to aliment the existing village well
78	Akkar	Beit Al Hajj	Rehabilitation of water sources and necessary installations
79	Akkar	Kroum Arab	Procurement of Pick-up truck
80	Akkar	Menjez	Rehabilitation of drinking water network
81	Akkar	Nahrieh and Boustan El Hersh	Supply of drinking water pipeline from the artesian well to the village reservoir
82	Akkar	Safinet El Dreib	Procurement of Pick-up truck
83	Akkar	Koueikhat	Procurement of Road Sweeper
84	Akkar	Dahr al Qanbar	Procurement of Pick-up truck
85	Akkar	Al Ghozaile	Procurement of Pick-up truck
86	Akkar	Aarqa	Procurement of Pick-up truck
87	Akkar	Tell Abbas East	Rehabilitation of irrigation canals
88	Akkar	Al Houmayra	Procurement of Pick-up truck
89	Akkar	Qobbet Chamra	Rehabilitation of irrigation canals
90	Akkar	Deir Janin	Rehabilitation of a dam on the Astoun river-bed
91	Akkar	Bzall	Completion of the village drinking water network
92	Akkar	Habchit	Rehabilitation of water reservoir
93	Kesserouan	Daraya	Rehabilitation of irrigation canals
94	Kesserouan	Al-Hussein	Rehabilitation of water network
95	Kesserouan	Ghodrass	Procurement of Pick-up truck
96	Kesserouan	Hiyata	Installation of Artesian well
97	Kesserouan	Aazra and Aazr	Procurement of Skid Road Loader
98	Kesserouan	Batha	Procurement of Skid Road Loader
99	Kesserouan	Zaitoun	Procurement of Skid Road Loader
100	Marjeyoun	Ibl El Saki	Rehabilitation of the village water fountain and construction of irrigation canals
101	Marjeyoun	Kolaiah	Procurement of Pick-up truck
102	Marjeyoun	Majdel Seleem	Construction of water reservoir for the village
103	Marjeyoun	Wazzani	Completion of drinking water network

### Distribution of small projects by type



### Distribution of MUFIN small projects value by district



The ESFD seeks to contribute towards boosting local economy in farming villages hosting Syrian refugees, through the implementation of the "Recovery of Local Economies in Lebanon (RELOC) project. RELOC is a EUR 7 million project signed with 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 project's implementation started in April 2015.

The RELOC project includes various agricultural interventions as follows:

- Construction of farming infrastructure, in particular mountain ponds in Beit Youness (Akkar), Kaa (Bekaa), Maarakka (South), Jbaa (Chouf), in addition to irrigation canals in Danniyeh. The services bids were released to select

consulting agencies by the end 2015.

- Design and implementation of an Agricultural Extension Program (برنامج إرشاد زراعي) in target areas.

- Support of active cooperatives in the sectors of olives, bees, fish, through the implementation of projects that contribute towards the improvement of product quality and marketing promotion.

- Provision of business consulting services to farmers, to help them access loans and develop their businesses.

ESFD's Main orientations during 2016:

In 2016, The ESFD will carry out the following activities:

- Continuation of the support to Syrian refugees hosting villages through the completion of the implementation of infrastructure projects related to drinking water, solid waste and wastewater.

- Launching the implementation of agricultural infrastructure projects.

- Implementation of the Agricultural Extension Program.

- Funding of productive projects targeting agricultural cooperatives by inviting active cooperatives to participate in a competitive competition launched by the ESFD to select the best project.

- Identification of new projects aimed at supporting Syrian refugees hosting communities and sourcing new grants to that end.

Project for Innovative Partnership to Promote Interregional Communication through Local Development (ART GOLD Lebanon)

ART GOLD Overview

Since the launching of the ART GOLD (AGL) Programme in September, 22 2006, as part of the ART Global Initiative, the United Nations Development Program (UNDP), in partnership with the CDR, has continued to implement this Programme in order to achieve balanced and

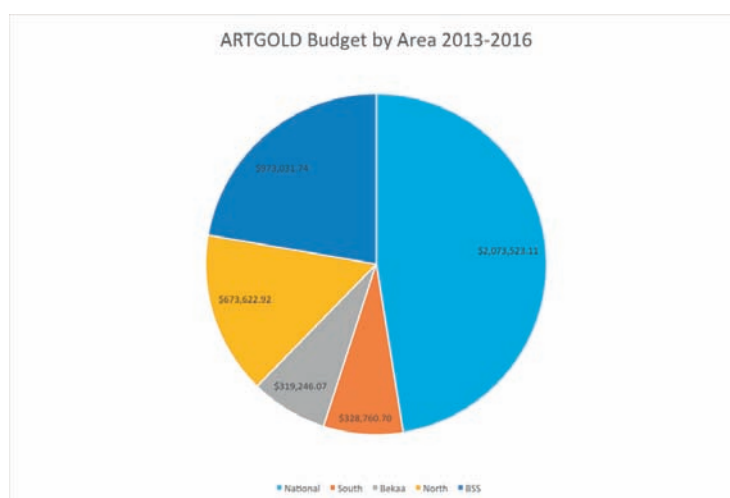
sustainable development in four regions characterized by high poverty rates and raging socio-economic problems. These regions are:

1. North Lebanon (Three districts): Akkar, Minnieh-Danniyeh and Tripoli.
2. South Lebanon (Five districts): Marjeyoun, Bint Jbeil, Nabatieh, Sour and Hasbaya.
3. Bekaa (Five districts): Rashaya, West Bekaa, Baalback, Hermel and Zahle.
4. Beirut Southern Suburbs (Baabda District): Municipalities of Chiyah, Borj El Brajne, Furn El Chebak, Gho-beiry, Haret Hreik and Mreyjeh.

In the beginning of 2013, the AGL phase II was launched by the UNDP and the CDR, for an implementation period of 36 months and was scheduled for completion by the end of 2015. The project was however extended until the end of 2016, to complete the implementation of all activities. New financial contributions were secured from the EU, the Italian government and the Principality of Monaco in addition to contributions from NGOs and European decentralized cooperation institutions.

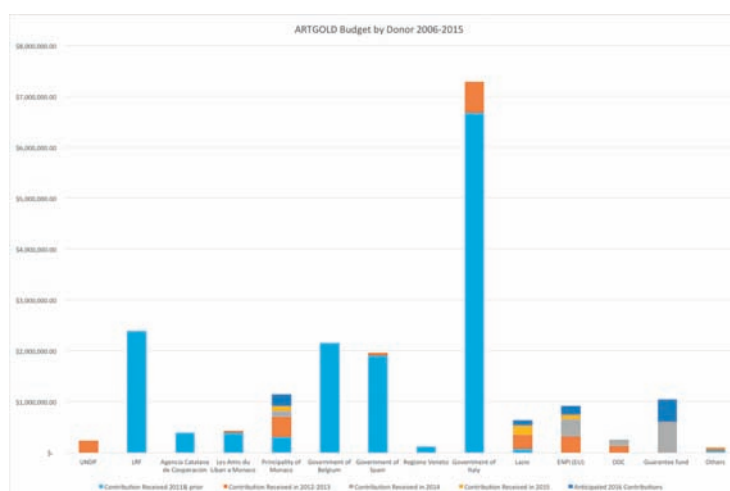
The AGL four-year total budget (2013-2016) amounts to USD 4,36 million distributed by regions as follows:  
Major achievements of ART GOLD Lebanon in 2015:

#### Distribution of ART GOLD project budget by region (2013-2016)-chart



The total allocated budget for ART GOLD since its inception in 2006 until 2016, is approx. US\$ 18 million distributed as follows:

#### Distribution of ART GOLD project budget by donor (2006-2016)-chart





### Major achievements of ART GOLD Lebanon in 2015:

In 2015, the ART GOLD Programme made significant accomplishments across various sectors, in partnership with local agencies and authorities in targeted regions.

First: Main achievements across different sectors:

A. Local Economic Development Sector (including agriculture):

A.1 Local Economic Development Agencies (LEDAs):

In 2015, ART GOLD continued to provide support to Local Economic Development Agencies in the four ARTGOLD targeted areas to help them in achieving self-sustainability and adopting a partial top-down support approach. Below are mapped out the main activities achieved in this context:

- Work continued within the framework of the Memorandum of Understanding signed between "Art Gold" and the "Local Economic Development Agency in the South of Lebanon" - South LEDA, to cover the operational costs of the Agency until the end of 2015.

- Within the context of the activities of the Sour Packaging Center inaugurated in October 2014, under the patronage of the Minister of Agriculture, to support farmers and farmers' cooperatives in Sour and the neighboring villages, a technical team from the Sour Agricultural Research Department was trained in 2015 on the use of laboratory devices that had been previously purchased and financed by ART GOLD. The purpose of the training was to enable the laboratory to undertake necessary tests to the benefit of the South agricultural cooperatives.

A.2 "Enhancing Economic and

Social Development in North Lebanon" Project, funded by the Government of Italy: the purpose of the project was to improve the economic and social conditions of farmers which deteriorated due to the aggravated Syrian crisis and the closure of the northern borders. The project also contributed to the improvement of the level of primary health care services in Wadi Khaled-Akkar, including public schools. During 2015, the project team continued to hold regular meetings with representatives of cow breeders from Wadi Khaled, to establish a cooperative, enhance the capabilities of 942 breeders and create a milk collection center.

B. Health and Social Development Sector:

A new agreement signed with the Principality of Monaco (in December 2014) has entered into force to develop comprehensive plans for social and health services in eight villages.

In February 2015, workshops were launched to develop comprehensive health and social services plans at the local level in each of the municipalities of Chiyeh, Haret Hreyk, Bourj Hamoud, Jbeil, Bar Elias and Baalbeck. Also a survey was made to evaluate the health care center of Furn El Chebak and renovate the health care center of Mrayjeh.

The Ministry of Public Health received support to develop a Health Information System and review the Oral and Dental Hygiene Guide made available to public schools located within the vicinity of the targeted municipalities.

Second: ART GOLD succeeded in securing additional funding to implement the following projects: A. Projects funded by the European Union - ENPI Projects:

- "Live Your Tour" project for the development of sustainable tourism: "Live your Tour" is implemented in the Bekaa by the Union of Baalbeck and Deir El

Ahmar Municipalities, the Union of Chouf El Souayjani Municipalities and the American University of Culture and Education (AUCE). The project is designed to promote Chouf and Baalbeck/Deir El Ahmar as attractive tourist areas. In 2015, a contract was awarded to a tourism expert to map out the major historical and tourist landmarks and attractions that can be promoted and are likely to attract more visitors. The expert presented a report including the main information regarding these landmarks, their itineraries and the activities that can be promoted locally and internationally.

- Local Agenda 21 in Territorial Planning in Energy and Waste Management: The project was implemented in the South of Lebanon from 2013 to 2015 in partnership with the Union of Municipalities of Jabal Amel. Below are the major achievements of Local Agenda 21 in 2014:

- Attendance by the project's team of the second steering committee meeting in Jordan.

- Elaboration of the territorial plan on energy resources and waste management that includes 16 villages from the Union of Municipalities of Jabal Amel, by the expert contracted for this purpose.
- Implementation of some environmental activities by environmental volunteers recruited by the Union of Municipalities of Jabal Amel.

- Inclusive Governance of Sustainable Coastal Metropolis (MEDSEATIES): The project aims to empower targeted local authorities in the multi-level decision-making processes related to environmental, economic and urban management of coastal cities. The project is implemented in six metropolitan areas from 5 Mediterranean countries: Aqaba/Jordan, Tripoli/Lebanon, Thessaloniki/Greece, Genoa/Italy, Marseilles and Toulon/France. The Project duration is one year (2014-2015).

In 2014, the Lebanon team

achieved the following:

- Establishment of the Lebanon project committee headed by the Union of Al Fayhaa Municipalities and composed by representatives from Al Manar University, LEDA North and UNDP.

- Assessment of existing initiatives and procedures pertaining to the management of coastlines in Lebanon in accordance with the indicators and criteria adopted in the management of coastlines.

- Identification of potential partners involved in coastlines management and review of legal mechanism adopted in coastlines management.

In addition to these tasks which were implemented in Lebanon, the UNDP, acting as the implementing partner of the Governance component of this project, collaborated with MEDSEATIES partners in other countries to develop a comprehensive report about the achievements of all partners.

- Territorial networking for capacity building and local development (T-Net): a cross border experience linking Lebanon, Jordan, France, Italy. The project was implemented in Beirut Southern Suburb between 2012 and April 2015 in partnership with the Federation of Municipalities of Zgharta, Sour, and Jezzine, Greater Madaba and Aqaba Municipalities in Jordan, the regions of Tuscany and PACA in Italy, OXFAM/Italy and ARCI. The project aimed at promoting networking between partners to achieve economic development. The project launched its activities by conducting a study on the leather-manufacturing sector in Beirut Southern Suburb to identify the needs and problems faced by this sector in collaboration with the Beirut Southern Suburb LEDA.

Based on the findings of this study, experts were sought from Italy to help in developing the "ambulant market" of the Beirut Southern Suburb to improve

quality, market traditional products, provide specialized technical support and train entrepreneurs. The project succeeded in opening three ambulant markets in Al Mraijeh, Haret Hreyk and Ghobeiry, benefiting around 100 businesses in each region. Training workshops were held and attended by 19 participants who learned about state of the art technologies to finalize leather finished products.

- Supporting Dry Land Development: a project funded by the UN Dry Land Development Center, whose goal is to support women agro-food processing cooperatives in the South of Lebanon and the Bekaa to improve their economic situation with emphasis on renewable energy. The project activities were finalized by the end of 2015.

In 2015, two agreements aimed at supporting women agro-food cooperatives were signed with the Chambers of Commerce, Agriculture and Industry of Saida and the Bekaa, to provide equipment and materials, deliver workshops, and support product marketing in local and global markets. Both agreements were finalized within the same year.



**Ambulant market in Beirut Southern Suburbs-photo**

### **Main targets for ART GOLD in 2016**

- Completing the projects launched in 2015 and prior years, while continuing to support the Lebanese host communities affected by the Syrian crisis, and alleviating the repercussions of the crisis on the poorest communities.
- Promoting the Decentralized Cooperation Partnerships to learn lessons from international best practices and experiences related to local development across sectors.
- Continuing to support the Local Economic Development Agencies (LEDAs) in the four regions to strengthen their participation in boosting the economy of the areas where each LEDA operates and to ensure the sustainability of their interventions.

Second: Regional Development Program in Akkar – Phase II

Following completion during 2014 of all approved activities under the Regional Development Program in Akkar – Phase II, the CDR and the UNDP continued their collaboration efforts and intensified consultative meetings to advance this partnership and modify the orientations of the Program in Akkar in preparation for the launching of the third phase.

In 2015, a new project draft was put in place with emphasis on the development of value chains in agricultural productive sectors that are likely to have a positive impact on the advancement of economic development in

Akkar, one of Lebanon's poorest regions.

This draft will be discussed by the UNDP, the Ministry of Agriculture and the CDR, to approve it and launch the new phase of the project.

Third: Enhancing Capacity for Social Development

The "Enhancing Capacity for Social Development" project is jointly implemented by the United Nations Development Program (UNDP) and the Ministry of Social Affairs (MoSA). The purpose of the project is to offer the adequate support to MoSA to shift from a Ministry of social affairs to a Ministry of social development and promote its leading role in improving the livelihoods of local communities and groups from disadvantaged backgrounds.

Lebanon is witnessing a great influx of refugees representing a burden weighing heavily on the Lebanese host communities and competing for already limited social services, employment and other economic opportunities. To tackle this issue, the Lebanese Host Communities Support Project (LHSP) was created as part of the Enhancing Capacity for Development Project. The LHSP aims at increasing and sustaining stability in the areas affected by the Syrian crisis through improving livelihoods and providing basic social services.

A steering committee was formed to provide strategic direction for LHSP and ensure that adequate mechanisms are in place to select and implement projects.

This committee is formed by representatives from the following entities:

- Presidency of the Council of Ministers
- Ministry of Social Affairs
- Ministry of Education and Higher Education

- Ministry of Public Health
- Ministry of Interior and Municipalities
- Council for Development and Reconstruction (CDR)
- World Bank
- European Union
- UNHCR
- UNDP

### Main achievements in 2015

With the financial support of UNHCR, Denmark, Ecuador, Italy, Japan, Monaco, United States, UK Development Fund, European Union, Germany, Lebanese Development Fund and Waldensian Church, the Lebanon Host Communities Support Project (LHSP) implemented projects in different sectors as follows:

**Health:** Projects aimed at supporting primary health care centers and hospitals by equipping them with necessary laboratory and x-ray equipment and supplies. Providing support to health centers enables both Lebanese and Syrians to access health services at reduced costs.

**Education:**

- a) Projects aimed at providing public schools with the necessary laboratory and IT equipment.
- b) Projects aimed at renovating a number of schools to increase school enrolment capacity.

**Water management:**

People living in isolated remote areas are faced with water scarcity; they do not obtain water in sufficient quantities to cater for their daily needs. To tackle this problem, LHSP carried out several projects that resulted in the installation of water pipes and the provision of vehicles equipped with water reservoirs to transport water.

**Waste management:**

Due to the increasing number of Syrian refugees and the incapacity of municipalities to handle huge quantities of accumulated trash, LHSP provided municipi-

palities with waste bins and trash collection and transfer vehicles in addition to the installation or renovation of wastewater networks.

**Income generating projects:**

Provision of new equipment and materials to women food cooperatives to increase their productivity and improve the quality of their products.

**Social projects:**

The purpose of these projects is to encourage social activities that gather people from different social backgrounds and ensure entertainment opportunities for the youth.

**Social cohesion projects:**

The aim of these projects is to promote interaction and communication between Syrian refugees and Lebanese host communities.

**Infrastructure Projects:**

- a) Renovations and repairs of internal roads to facilitate students' access to schools and employees' access to the workplace.
- b) Cleaning and renovation of sewer networks.

Another initiative was also implemented by four Ministries: Ministry of Education and Higher Education, Ministry of Health, Ministry of Interior and Municipalities and Ministry of Social Affairs in partnership with the UNDP. The initiative aimed at strengthening local governance to contribute to local development in Lebanese regions and improving social and economic conditions of local communities.





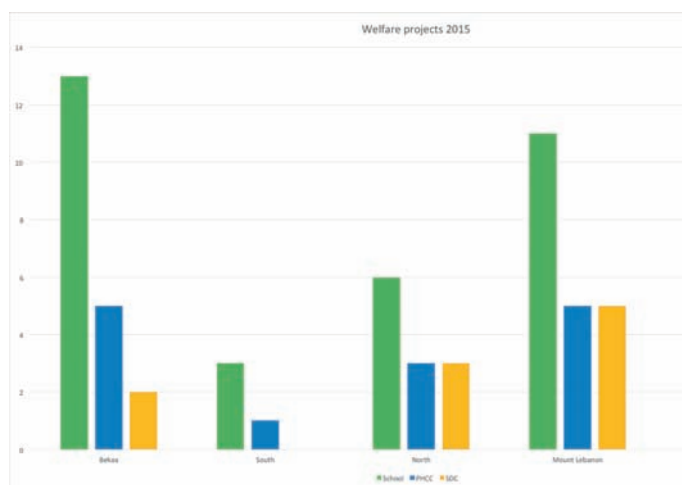
Child receiving vaccination in a primary health care center



Renovated classroom in Bint Jbeil

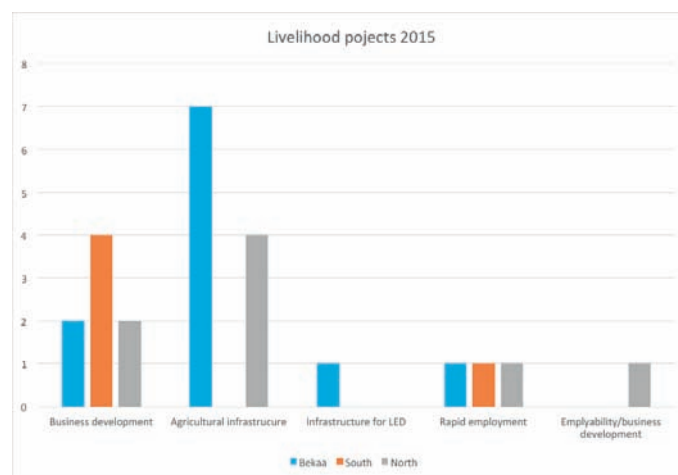


A woman working in Deir Qanoun Women Cooperative



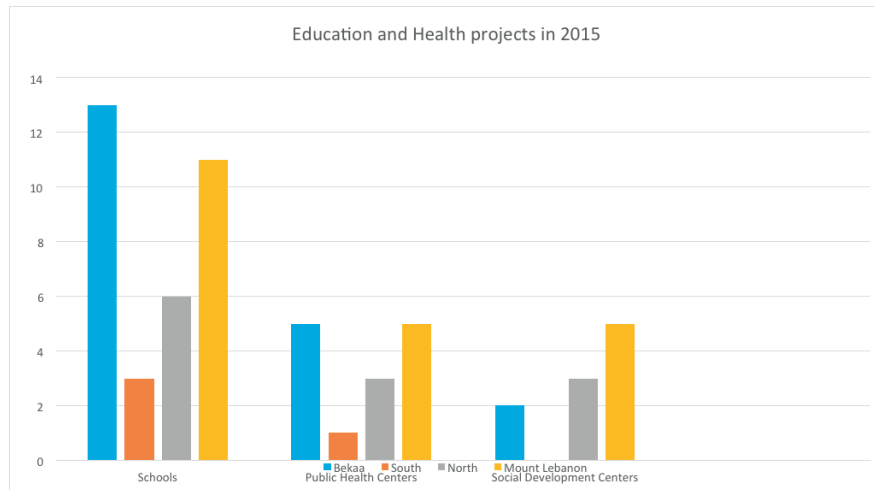
Projects Implemented in 2015 to support Municipal Services (41 projects in total):

*Distribution by geographical area and sector*



Projects Implemented to support Livelihood (24 projects in total):

### Projects Implemented to support Education & Health (57 projects in total):



The total number of beneficiaries of projects implemented in 2015 is as follows:

Number of Lebanese beneficiaries: 355, 898

Number of Syrian beneficiaries: 152,527

### Main targets for LHSP in 2016:

-LHSP will continue to assess needs based on the Maps of Risks and Resources (MRR) methodology in 128 host communities most affected by the Syrian crisis. The output of the MRR is a Multi-Sectorial Municipal Action Plan (MAP), to provide more comprehensive services and respond to the needs of local communities.

-LHSP will continue to implement projects that respond to priority needs that were identified based on the participatory assessment of needs conducted in full cooperation with local stakeholders and relevant government entities, and will seek to implement long term development interventions to enhance the Lebanese people's resilience to crises.

-Women's Affairs/Population Issues

Information & Electronic Programme to monitor latest achievements

The National Commission for Lebanese Women (NCLW)

launched the process to compile from ministries, public administrations, and civil society organizations engaged in women's issues, to map out the activities implemented in the twelve areas of intervention identified in the National Strategy for Women in Lebanon. The purpose is to provide a database for primary information necessary to monitor the implementation of the National Action Plan during its first year.

To this end, the NCLW in cooperation with the United Nations Fund for Population (UNFPA) developed an electronic information program, which enables ministries, public administrations and civil society organizations engaged in women's issues, to respond electronically to questionnaires, in order to measure indicators that help in monitoring the progress made in each of the areas of intervention set out in the Strategy.

It is worth noting that the CDR shared the requested data, by completing electronically the NCLW survey questionnaires.. The data covered CDR's activities implemented through programs and projects carried out in partnership with the concerned official entities and international organizations, and benefited a variety of social groups including women in the following areas

of intervention identified by the National Strategy for Lebanese Women: Economy, Media and Culture, Gender Mainstreaming and Environment.

The CDR, through its representative in the NCLW, participated in workshops and trainings for Gender Focal Points, in ministries and public administrations, organized by the NCLW, within the framework of capacity development in the following areas:

-Training workshop on Gender Mainstreaming in policies & programmes.

-Strategic Planning in administrations and institutions.

-Workshop on the "Convention on the Elimination of all Forms of Discrimination against Women – CEDAW".

-Follow-up on the legislative reforms aimed at eliminating economic and social discrimination against women.

Updating the Database on the Status of Women in Lebanese Legislation

The NCLW, in cooperation with the UNFPA updated a legal database that serves to monitor the progress of the legislative process to address modifications of laws that discriminate against women. The data gathered was published in a study entitled: "Women's rights under Lebanese Laws: New provisions and Desired Reforms". The study laid down a comprehensive strategy to follow-up on these laws, and identified the recommended partners as well as the challenges and implementation enablers. The study was issued in the context of the periodic update launched by the NCLW in 2013, that compiled the laws, draft laws and decrees, submitted to the Parliament and the Council of Ministers under a first study: Women's Rights under Lebanese Legislations "Amendments Suggested Between 2000-2013".

Cooperation between NCLW and

### ESCWA

The NCLW prepared Lebanon's national official report which reviewed progress made towards the implementation of the Beijing Platform for Action 20 years after its adoption. The report was submitted to the Economic and Social Committee for West Asia (ESCWA), to showcase the main achievements at the following levels: Awareness, legislation and planning, compliance with international charters and treaties, and the progress of the implementation of the 12 focus areas identified by the Beijing Platform for Action.

### Networking with the Ministry of Social Affairs

Follow-up to the National Campaign to support Women in Decision Making and Peace building launched by the NCLW on the occasion of the Women World Day on March 8, 2012, the Ministry of Social Affairs and The NCLW signed a cooperation agreement in 2013 within the framework of a joint project on "Promoting Women's Participation in Local Governance and Development", funded by the Italian Embassy in Beirut - Italian Development Cooperation Office.

The project aims to promote gender mainstreaming in public policies, organize workshops targeting associations engaged in women's issues, and launch a national media and advertising campaign to encourage women to participate actively and effectively in governance and increase their representation at decision-making levels and in public spheres.

Below, are major achievements accomplished within this project: Raising the awareness of the media on gender concepts; launching the national campaign to support women's participation in governance, a national media campaign aimed at promoting women's participation in politics and at decision-making levels;

launching the national glossary on gender and gender equality. At a later stage, this glossary will be made available to public institutions and administrations, civil society, in order to achieve consistency regarding concepts specific to gender.

### Networking with the Ministry of Foreign Affairs and Expatriates

The NCLW collaborates with the Ministry of Foreign Affairs to prepare all reports related to the status of women in Lebanon. In 2014, the Ministry of Foreign Affairs requested the NCLW to draft the report on the Elimination of all Forms of Discrimination against Women (CEDAW). The NCLW also prepared the report which was discussed during the Universal Periodic Review (UPR).

### At the level of Women Economic Empowerment

In 2011, the Central Bank issued a decision authorizing the NCLW to grant micro credits through intermediary banks. As a result of this decision, the NCLW launched the "Najah Loan" which allows women to access soft loans to finance business activities in the fields of economy, industry, agriculture, tourism, services and technology.

Main achievements within this initiative: The NCLW followed-up on the granting of soft loans at low interest rates to women desiring to establish new business or develop existing businesses within the framework of the "Najah Loan" project and loans subsidized by Kafalat. The NCLW also signed a cooperation agreement with the "Lebanese Association for Development – Al Majmoua" intended to offer technical services to women wishing to obtain loans granted by the NCLW.

These services included: training on business creation, business management and business development; creation of innovative business ideas; production

inputs; marketing and networking. Moving forward, the NCLW aims to further implement the cooperation agreement, to benefit a larger number of women in all Lebanese regions.

### At the level of the E-portal

In an effort to share knowledge and exchange information on women's issues and gender, the NCLW created an E-portal that includes different sections:

#### -E- Library

The E-Library provides researchers, men and women, in women's issues and gender with the opportunity to access online bibliographic references that are available at NCLW library and also at the library of the American University in Beirut,

#### -Publication Center

The publication center grants individuals and institutions the opportunity to publish directly online studies, work programmes as well as creative initiatives in support of women's movement.

#### -Women Forum

The Forum is intended to bring together activists and researchers to discuss current issues relevant to gender equality.

#### -Cyberzone

The Cyberzone offers NGOs the opportunity to create their own website at no cost. It contributes to the creation of a platform for interaction between various women groups and organizations. Currently, the Cyberzone includes links to several women associations.

#### -International Center

The International Center is intended to act as a linkage between the Lebanese Women's Movement and the Women's Movement worldwide.





## LAND-USE & ENVIRONMENT

**The Land-use sector includes three disciplines:**

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 prepared according under the Land Use Master Plan.

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

In the seventies, 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 the quality of water and pollution of rivers and groundwater;
- Trespasses to agricultural land, coastlines, and important tourist sites.

This situation necessitated immediate solutions to reduce the

negative impacts on the economic and social growth in Lebanon, under stressing factors, mainly the following:

- The decrease in the financial capabilities of the public sector and the priority given to the reduction of public debt.
- The globalization and the new economic laws that the countries should comply with to position themselves in international markets.

The increased interest in environment and heritage, which started during the nineties and the orientation towards the rationalization of the use of natural resources and the deployment of big efforts to focus on heritage. Based on the above, the current phase is characterized by the rationalization of the use of resources, the cut in public expenditures and the enforcement of control mechanisms.

##### 1.A.3) Preparation of a 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 about the future of

the country lands (25 years). In the first place, the purpose of this vision is to constitute the general framework of the urban planning policy on one hand, and the unified geographical reference for the various sectors projects and investments on the other hand.

#### 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 and 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 approval Decree No. 3366 was 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 by this Decree:

1) The identification of the general land-use orientations in tables annexed to the Decree. The General Directorate of Urban Planning has to consider these when studying or modifying the 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 an administrative committee 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. This committee is in charge of the Land Use Master Plan monitoring and evaluation.

1. B.2 Terms of reference for the Lebanese Coastline Master Plan: the Council of Ministers commissioned the CDR to raise funds to prepare the study of the Lebanese Coastline Master Plan. To that end the CDR coordinated with several concerned public administrations - including the Ministry of Environment, Ministry of Agriculture, Ministry of Tourism, Ministry of Public works and Transport (the Directorates of Urban Planning and Transportation), in addition to the General Directorate of Antiquities and the Syndicates of Engineers and Architects of Beirut and Tripoli - and contacted several international institutions that constitute potential donors to solicit grants to prepare the required study.

1. B.3 Local Development Support Project in North Lebanon (ADELNORD): The CDR was commissioned to implement the ADELNORD project in the North of Lebanon, with a US\$ 18 million grant offered by the European Union. In 2010, urgent projects related to agricultural infrastructure 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 review 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 study and supervision of agricultural infrastructure projects were subcontracted. These projects were distributed into 6 groups based on the type and geographical location of the works. In 2012, all activities and works were subcontracted. In 2015 the project was fully completed except for the establishment of a waste treatment plant in Fnaideq which is scheduled for completion in the first half of the year 2016.

1. B. 4) 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 prepare the related draft legal framework, after

setting out the relevant terms of reference in collaboration with the Ministry of Environment (MoE). The team completed this draft law and the CDR referred it to the MoE. 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 concerned parliamentary committees, which approved them laying the ground for their approval in the foreseen parliamentary plenary session.

1.B.5) 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 elaborated 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 terms of reference related to the study of the strategic sustainable development plan for Tyre and Akkar.

1.B.6) 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 Caza 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 elaborate 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. This 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, subcontracted the Tyre SSDP preparation 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, a 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 prepared 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 prepared, 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 get 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 consultants prepared a draft strategic environmental assessment of the Tyre SSDP which was referred to the Ministry of Environment for comments, and whose final version is currently underway.

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.

Shortly after the draft of each report was prepared, 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 get the participants' feedback, and therefore issue the final version in accordance thereto.

The CDR prepared the draft SSDP for Akkar, and a workshop is scheduled for 2016 to discuss its findings, and accordingly issue its final version.

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 prepared and approved by the Ministry of Environment.

1 – B-7) 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 urban development studies and research in the Mediterranean. 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-C) Work Progress during 2015:

In 2015, the CDR continued to carry out the following activities:

- 1) Fundraising for the Lebanese Coastline Master Plan study.
- 2) Implementation of the ADELNORD project on "the Support to Local Development in the North of Lebanon", funded by the EU, namely the project intended to construct a solid waste treatment Plant in Fnaideq.
- 3) Preparation of the Strategic Sustainable Development Plan (SSDP) for Tyre funded by the French Development Agency and carried out in close collaboration with the Tyre Municipalities federation and civil society organizations, namely finalization of the Tyre SSDP Environmental Impact Assessment.
- 4) Preparation of the Strategic Sustainable Strategic Plan



(SSDP) for Akkar with a financial assistance from the European Union, namely discussing the draft Akkar SSDP with local actors to lay the grounds for the issuance of the final version.

5) 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 will be held in 2016, the CDR commissioned a local expert on urban planning and urbanization to prepare 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 prepared the draft Habitat III report which was discussed with the concerned administrations and institutions.

#### 1-D) Projects under preparation:

-Preparation of the Lebanese Coastline Master Plan: The preparation of a master plan for the Lebanese coastline is one of the major land-use projects that the CDR is planning to initiate in collaboration with the Ministry of Environment and the Ministry of Public Works and Transport. Fundraising for this study is underway and positive results are expected to be achieved during 2016.

-Update of the Land Use Master Plan: The Land Use Master Plan should evidently be updated because it was prepared in 2004 and approved pursuant to a decree issued in June 2009. In 2015, the CDR hopes to initiate the preparatory activities to update this 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.

-Continuation of the preparation of Habitat III country report -within the context of Lebanon's participation to the United Nations Conference on Housing and Sustainable Urban Development: The draft Habitat III Country Report was prepared and discussed by concerned administrations and institutions in Lebanon. These administrations and institutions will continue their collaboration and discussion efforts to make recommendations and issue a final draft by mid-2016.

#### 2. Environmental and Tourism Projects

Main achievements until 2015

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.

One of the projects implemented so far is the Environmental Fund for Lebanon (EFL). EFL is implemented by the German Agency for International Cooperation (GIZ) in coordination 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. It also aims at supporting 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 Keserouan, 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 industrial wastewater discharged by private companies, 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 environmental compliance and management of industrial wastewater general policy, which sets the following goals:

- Situation analysis of industrial wastewater treatment;
- Review of environmental laws and regulations that regulate wastewater treatment in general, and industrial wastewater and their discharge in particular;
- Assess the responsibilities and capabilities of stakeholders regarding environmental compliance and 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, executed 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 over the last five years 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) according to the above mentioned terms of reference. In this context, the Diagnostic mission and the draft plan were completed in cooperation with local authorities. 3-Within the framework of the initiative aimed at providing technical support to create 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 concerned parliamentary committee for review and approval.

4-In 2014, the competent parliamentary committee approved the Natural Reserves Law 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 in 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.

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) 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.

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

### Work progress in 2015:

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 aimed 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 the EU, the environmental component namely. These are the highlights of the program:

1-ADELNORD completed the final version of the Sustainable Strategic Development Plan for Akkar in cooperation with a team of subject matter experts in environmental sciences, economics, urban planning and social development, assigned by GFA-ELARD, in cooperation and communication with local authorities.

2-Within the framework of Fire Suppression and Forest Protection and Management, the CDR completed Phase II of this mandate, upon the request of the Minister of Agriculture, in particular the following:

- 1-Implementation of a training program targeting forests guards and local activists;
- 2-Supply of forest management tools and supplies;
- 3-Proposal of a follow up mechanism to implement the two management plans of the Forest of Andkit and Safira.

4-According to 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) include 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 refinement stations. 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.

Furthermore, in 2015, the CDR participated in coordination committees and continued the execution of 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 coordination committee meetings and in 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.

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

Major projects and activities that CDR will pursue in 2016:

- Performing a strategic environmental assessment for the two strategic plans of Akkar and Sour.

- 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.

The Forestation Project in West Bekaa, the creation of local job opportunities and awareness activities; the project aimed at creating an eco-tourism strategy for the fishing industry on the Lebanese coastline; the project aimed at controlling natural resources in Lebanon; the 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 executed in 2016 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 executed in 2016, 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.

### 3- 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), Saida, Tyre and Baalbeck. With a view to improve 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, regu-

lation 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, Saida 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 land castle in Saida; 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 primary studies of the project in particular the studies related to five targeted cities: Tripoli, Byblos, Baalbeck, Saida, 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 Saida, 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 Saida (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 work-



shops 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 Saida (phase 1) were wrapped up.

- In May 2009, the restoration project for Al-Bawaba Square, Hamra Street, and Al-Jaafariyeh 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 renovation of the land castle in Saida 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 Saida 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 Shqeef Citadel in Arnoun were launched.

- In October 2010, a contract was signed for the procurement of of-

fice 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 Shamaa citadel 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 Saida 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 Shamaa Citadel. Only one bidder submitted a proposal. The study was modified following the collapse of a part of the Citadel'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 Saida 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.

- The restoration and renovation of Khan Al Askar are underway.

- 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.

- The restoration and renovation of Al Bawaba Square, Hamra Street and Al Jaafariyeh area are underway.

- The renovation of the Fishermen Port and its seafront in Tyre are un-

derway.

-The team of the Management Unit of the Cultural Heritage project reviewed the study proposed by the Municipality of Byblos to build a parking lot in the city. The administrative file was prepared, as a preparatory step for the release of the call for tenders.

### Work progress in 2014:

-Oversight over the Environmental Impact Plan in the CHUD five targeted cities.  
 -Completion of the restorations and renovations of the Beiteddine Palace (water isolation).  
 -Continuation of restoration of the Shqeef Citadel in Arnaoun.  
 -Preparing to release a call for tenders to outsource the restoration of the Beit Mery archeological site.  
 -Oversight over 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.  
 -Release of a new call for tenders to outsource the restoration and renovation of Shamaa citadel.

#### 1. Saida:

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

#### 2. Tripoli:

-Continuation of the works for the renovation of the surrounding area of Al Burtassi mosque and Abu Ali River banks and construction of an awning above a section of the banks stretched within the old city.  
 -Outsourcing the guardianship and maintenance of Khan El Askar.  
 -Completion of Tripoli Citadel restoration works.  
 -Completion 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.

#### 3. Tyre:

- Continuation of the renovation works at the fishermen port and its seafront in Tyre, and construction of fishermen building according to the modified design.  
 - A contract was signed to award the archeological site renovation works, Phase I.

#### 4 .Baalbeck:

-Continuation of infrastructure renovation at the archeological sites of Baalbeck and Tyre.  
 -A contract was signed to award the site works (Phase II works – Abdel Halim Hajjar and Saleh Haidar Streets) and commencement of site works.  
 -A contract was signed to award the archeological site renovation works, Phase I.

#### 5. Byblos:

- A contract was signed to award the construction of a parking lot in the city.

### Main Contracts signed during 2014:

The CDR signed the following contracts:  
 -Contract related to phase II works at the city of Baalbeck.  
 -Contract related to the creation of a parking lot in the city of Byblos.  
 -Contract related to the archeological projects in Baalbeck and Tyre – Phase II.  
 -Contract related to the oversight over Baalaback site works

– Phase II.

-Contract related to the oversight over the construction works of the parking lot in Byblos.

### Main Projects under Preparation (2015):

The CDR prepared the following studies and projects:

-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 of a documentary about CHUD.  
 -Development of CHUD project's environment impact assessment.  
 -Restoration works at the archeological project in Deir El Kalaa.  
 -Restoration works at Beiteddine Palace – Phase II.  
 -Works for the rehabilitation of Shamaa castle.  
 -Excavation works at the Archeological Museum of Beirut.

#### 1. Baalbeck:

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

#### 2. Saida:

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

#### 3. Tripoli:

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

MIR Mill.

- Making preparations to complete of Abu Ali River sites works.

#### 4. Tyre:

- Making preparations to release of a call of tenders to outsource the completion of the Tyre southern coastal roads site works.

- Making preparations to release of a call for tenders to outsource the restoration of Tyre old souks.

- Commencement of renovation works of Al Bawaba Square and parking lots.

- Outsourcing of the detailed studies and supervision works for the renovation of the Old Souks and the southern coastal road in the city of Tyre.

- Outsourcing of the site works for the renovation of the Old Souks and completion of the southern coastal road in Tyre.

- Outsourcing of the detailed study related to the renovation of Tebnin Citadel and its surrounding area.

### Main projects pipeline (2016-2017)

- Extension of the guardianship and maintenance contract of Khan Al Askar in Tripoli.

- Outsourcing of the works of the project aimed at completing the rehabilitation works of Abu Ali Riverbanks.

- Outsourcing of the execution of 2 local economic development projects in Tripoli.

- Outsourcing of the execution of a local economic development project in Tyre.

- Outsourcing of the rehabilitation and renovation works of Khan Al Qishly in Saida.

- Outsourcing of the rehabilitation and renovation works of the Baalbeck Saray Building.

- Outsourcing of the detailed studies and supervision works of the renovation of Khan Al Saboun and Property No. 131.

- Outsourcing of the Khan Al Saboun renovation works.

- Outsourcing of the detailed studies and supervision works related to the renovation of the eastern facades of the Abu Ali River.

- Outsourcing of the renovation works of the eastern facades of the Abu Ali River.

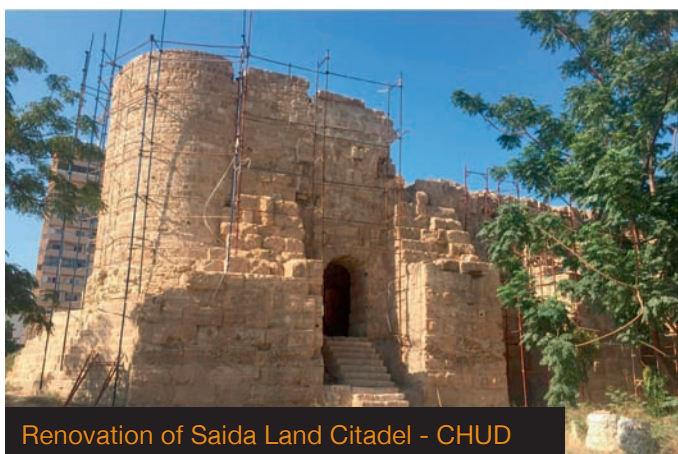
- Outsourcing of the renovation of the facades, roads, and public squares in the northern and eastern souks in the city of Tripoli, Phase II (sections 4, 6 and 8).

- Outsourcing of the renovation of the facades, roads, and public squares in the northern and eastern souks in the city of Tripoli, Phase II (sections 5 and 7).





Luching of Museum of Beirut Project - CHUD



Renovation of Saida Land Citadel - CHUD



Renovation of Saida Land Citadel - CHUD



Renabelation of Vegttables Market - Tripoli - CHUD





Rehabilitation of the entrance to Baalbeck Citadel-CHUD



Rehabilitation of Abd El Halim Hajar Facade -CHUD



Rehabilitation of the port of Tyre -CHUD

## Main contracts signed in 2014:

Project	Estimated Value (USD)	Source of Funding	Scheduled Start	Scheduled Completion
Phase II works – Saleh Haidar Abdel Halim Hajjar in the City of Baalbeck	2,376,400	World Bank	2014/11/10	2015/12/28
Oversight over Phase II works in the City of Baalbeck	90,775	Local	2014/11/10	2015/12/28

## 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	171,818	World Bank	2015/02/10	2016/02/10
Construction of a car parking in Byblos	833,820	World Bank	2015/04/15	2015/10/30
Oversight over Phase III works in Byblos	45,860	Local funding	15/04/2015	30/10/2015
Preparation, development and filming of a documentary about CHUD	153,411		23/07/2015	22/12/2015
Execution of a local economic development project in Baalbeck	100,000	World Bank	01/07/2016	31/12/2016
Excavation works at the Archaeological Museum of Beirut	720,416	Kuwait Fund for Arab Economic Development	16/06/2015	15/03/2016
Outsourcing of the restoration of Shamaa Citadel	EUR 499,900	Italy	18/09/2015	17/06/2016
Environment impact assessment of the Cultural Heritage and Urban Development Project	92,314	World Bank	11/10/2015	31/12/2015
Restoration works at Baalbeck and Tyre historic sites – Phase II	4,487,000	Italy	04/11/2015	03/11/2015
Main projects pipeline (2016-2017)				
Guardianship and maintenance of Khan Al Askar in Tripoli		Local funding	10/02/2016	10/02/2017
Continuation of the rehabilitation works of Abou Ali riverbanks	2,778,430	French Development Agency, World Bank and local funding	14/02/2016	14/02/2017
Execution of local economic project in Tripoli	80,000	World Bank	01/07/2016	31/12/2016
Execution of local economic project in Tyre	50,000	World Bank	01/07/2016	31/12/2016
Renovation and rehabilitation of Khan al Qishly in Saida	EUR 2,250,000	Italy	01/08/2016	31/01/2018



Renovation and rehabilitation of Baalback Saray building	EUR 1,000,000	Italy	01/07/2016	30/06/2017
Formulation of detailed studies and oversight over the renovation of Khan Al Saboun and Property No.131	325,000	French Development Agency	11/12/2016	11/06/2017
Renovation of Khan Al Saboun	1,792,000	French Development Agency	23/11/2017	23/05/2017
Formulation of detailed studies and oversight over the renovation of the two riverbanks of Abu Ali River, Tripoli	150,000	French Development Agency	11/12/2016	14/05/2017
Renovation of facades, roads, and public squares in Tripoli-phase II (parts 4,6, and 8)	6,000,000	French Development Agency	11/01/2017	11/07/2018
Renovation of facades, roads, and public squares in the northern and eastern souks in Tripoli-phase II (parts 5 and 7)	3,000,000	French Development Agency	11/01/2017	11/07/2018
Restoration of the facades of Abu Ali riverbanks	2,000,000	French Development Agency	26/10/2017	25/04/2019
Formulation of detailed studies and oversight over the restoration of the old souks and the southern seafront in Tyre	150,000	French Development Agency	11/12/2016	11/06/2017
Restoration of old souks in Tyre and continuation of the southern coastal road	2,000,000	French Development Agency	23/11/2017	23/05/2019
Rehabilitation and renovation of Beit el Dine Palace	1,350,000	Lebanese Government	01/01/2017	30/06/2018
Restoration works at the Beit Mery Historic Site		Lebanese Government		
Technical support to the donor to continue the works of the Archeology Museum in Saida	4,400,000	Kuwait Fund for Arab Economic Development and Arab Fund for Economic and Social Development		
Site works at the Archeological Museum of Beirut	27,500,000	Kuwait Fund for Arab Economic Development	01/07/2017	30/06/2019
Douma Old Souks site works (restoration of building facades, public squares and infrastructure)	3,000,000	No funding		
Formulation of a detailed study pertaining to the restoration of Tebnin Citadel and its surrounding area	EUR 85,000	French Development Agency	01/01/2017	30/09/2017
Restoration works at the Tebnin Citadel and its surrounding area		No Funding		

## WATER

In the aftermath of the Lebanese civil war, the existing drinking 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 drinking 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 network.
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 drinking 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 ac-

cording 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 drinking 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 (drinking 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 Ministry of Energy and Water commissioned a private 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 (1992-2015)

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 drinking water supply installations belonging to 19 drinking 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 drinking 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 drinking 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 drinking water treatment plants

- Rehabilitation and construction of drinking water supply and distribution networks in the Greater Beirut area.

Expansion of Dbayeh drinking water treatment plant (First phase): the capacity of Dbayeh drinking 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 Baalback Hermel Governorates:

- Baalback-Nabi Sheet drinking water supply and Baalback wastewater network: the US\$ 32 million contract was funded by the World Bank. Under this project, the rehabilitation of drinking 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 Baalback.

- Baalbeck-Nabi Sheet House connections and additional distribution lines: the value of this contract amounts to around US\$ 1.25 million, funded by the World Bank.

- Construction of wastewater and additional drinking water distribution pipes in Baalback and Amshki: these works are considered as complementary to the above mentioned project for drinking water distribution and wastewater pipeline network construction for Baalback-Nabi Sheet region. The works resulted also in the construction of pipeline network to distribute drinking 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 additional drinking water distribution pipes in 17 villages in Baalback district: these works complement the above mentioned project on drinking water distribution and wastewater pipeline network construction for Baalback-Nabi Sheet region; consisting of a distribution network for drinking 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.

- Bekaa governorate villages (north-west Bekaa) water supply systems Lot 3 of Phase 1: this project included the drilling and equipping of wells 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 drinking 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 this project, house connections are being set up for all villages that benefited from the Yammouneh-Ouyoun Orghosh projects, which were achieved as shown above; the project amounted to approximately 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 drinking water to Shmistar region and its surroundings.

- Execution of water supply networks and water reservoirs for some regions in Bekaa gover-



norate: 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 Baalback caza: with a total budget of US\$ 1.4 million locally funded.

-Supply of drinking water to villages in Baalback district (north east part) – lots 1 and 2: this project was split into three sections to supply drinking 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 additional 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) from 2005 to 2015.

-Execution of additional 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 West Bekaa and Zahlé cazas.

-Execution of complementary water works on the Rashaya –West Bekaa roads – Part II – Section I – Group I: Works included the installation of drinking water transmission and distribution lines on roads in Rashaya and West Bekaa Cazas, 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 drinking water transmission and distribution lines on roads in Rashaya and West Bekaa Cazas, 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.

#### 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 Sa-beh spring and the execution of wells, reservoirs, pumping stations and drinking 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, re-

habilitation of water reservoirs, drinking 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 drinking water. The works included the spring catchment, construction of local and regional reservoirs, pumping stations and transmission lines, with a total budget of US\$ 7.6 million locally funded.

#### 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 drinking 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 in-

creased 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 drinking 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 million locally funded.

-Execution of water supply pipe lines for water treatment station in Kousba, Koura caza: with a total budget of US\$387.000 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 in-

creasing the capacity of Bahsas water treatment plant from its capacity of 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 an approximate budget of US\$1.7 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 caza. 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 caza: the contract amounted to US\$ 3 million financed by the Kuwait Fund.

-Completion of water supply projects in Batroun caza 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 US\$ 13,6 million project was financed by the Abu Dhabi Development Fund.

-Completion Bargash-Hrar-Kaf el Tineh and Kabeit water supply project in North Lebanon: the project consisted of water works to complement the existing networks in these villages, with a total budget of US\$ 7.6 million funded by the Saudi Arabia 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 drinking water distribution networks servicing Keserwan coastal region.

-Rehabilitation of drinking water wastewater networks in Chouf and Metn cazas: 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 drinking water distribution networks, in addition to wastewater networks.

-Rehabilitation of infrastructure in displaced villages: this included the rehabilitation of the existing drinking water networks and the installation of new networks in the displaced villages of Baabda, Aley and Chouf cazas. 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 12000m<sup>3</sup> 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 drinking 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 new water facilities for (ex) Ain El Delbe Water Authority – with an approximate budget of US\$ 4 million funded by the Kuwait Fund for Arab Economic Development.

South and Nabatiyeh 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 drinking water per day and supply the drinking 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 elec-

tric power, and performing operation and maintenance activities through local funding.

- Drilling and equipping 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\$ 4.6 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 Nabatiyeh region: This project aimed at increasing the capacity of drinking 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 Nabatiyeh region: with an approximate budget of US\$ 2 million funded by the European Union.

- Execution of drinking water networks in Hbarieh region in Hasbaya: with an approximate budget of US\$ 14.9 million funded by the French Agency AFD.

- 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 installa-

tion of drinking water networks in Nabatiyeh 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 through 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 Nabatiyeh caza: 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 drinking water supply capacity, with an approximate budget of US\$ 1 million funded by the European Union.

- Execution of water and wastewater networks in the Cazas of Sour and Nabatiyeh: The project included the installation of drinking water and wastewater networks in some villages in the Cazas of Sour and Nabatiyeh, 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 Cazas 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\$ 51 million funded by the Islamic Development Bank (IDB).

- Replacement of the drinking water supply networks and



house connections in Chebaa, Hbarieh, Kafarchouba, Ain Qania, Chwaya, Kfarhamam, Kfayr and Khalwat Kfayr – Section II with an approximate budget of US\$ 14.3 million funded locally (Decree No. 6841/2011).

### Work progress in major ongoing projects

North and Akkar Governorates:

-Rehabilitation and expansion of water networks in Chekka and Anfe: the purpose of this project is to supply drinking water to Chekka and Anfe areas till Hreish by drilling artesian wells in Jaradeh area, rehabilitation and expansion of drinking water networks, new house connections and construction of water reservoirs. The cost of the project is US\$ 9.6 million and is funded by the Arab Fund for Economic and Social Development. 85% of the work has been completed to date.

-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\$ 18,8 million, and is funded by the Arab Fund for Economic and Social Development. 60% of the work has been completed to date.

-Installation of drinking water networks and pumping stations & wells in Koura and Batroun cazas, namely: Edde, Dhour Edde, Basbina, Abrine, Hamat, Kfarhalda, Assia, Darbashtar, Majdel, Kaftoun, Dhour el Hawa and Ram. The cost is US\$7,7 million and funded by the French Development Agency and the CDR budget. 95% of the work has been completed to date.

-Completion of water systems in Minnieh-Danniyeh: this project aims at complementing the water systems works that the CDR executed between 1998 and 2002. Parts of this project are still un-

exploited. These works are estimated at US\$ 10 million, funded by the Arab Fund for Economic and Social Development and the CDR budget. 17% of the work has been completed to date.

-Rehabilitation and renovation of water systems in Becharre: This project includes the supply of drinking 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\$ 12 million, and is funded by the Arab Fund for Economic and Social Development and the CDR budget. 20% of the work has been completed to date.

-Drinking water and wastewater project in the region of Ehden: The project aims to execute drinking water supply systems and wastewater systems in the region of Ehden, with a total cost of US\$ 14.9 million, funded by the Abu Dhabi Fund and the CDR's budget - Horizon 2000 plan. 85% of the work has been completed to date.

-Expansion of the water and wastewater network in Midan-Ehden: The project aims to install additional drinking water and wastewater networks in Midan - Ehden to expand the current network, with a total budget of US\$ 1.3 million, locally funded. 33% of the work has been completed to date.

Mount Lebanon Governorate

-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 drinking 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.

-Construction of Qaysamani Dam in Baabda caza: the project aims at supplying drinking water to Baabda and Aley cazas. The dam has a capacity of around 1 million cubic meter and supplies around 12000 cubic meter of water daily to both cazas. The cost of the project is estimated at US\$ 21 million and 43% of the work has been completed to date.

-Upgrading the drinking water systems in Jbeil caza: this project is the phase 1 of the planned project. This phase is estimated at EUR 40 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. 15% of the work has been completed to date.

-Construction of Manzoul hill lake in Metn caza: The purpose of the Manzoul lake & Dam in upper Metn, is to increase the supply of drinking 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 wa-

ter treatment plant, two transmission lines of a diameter of 1400 mm each and 9 km long to supply 3 regional water reservoirs in Baabda caza 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. 5% of the work has been completed to date.

-Diversion and Rehabilitation of the water line between Nabee El Safa and Beiteddine (Mir Bashir Aqueduct): The purpose of this project is to execute 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\$ 3.6 million locally funded (Council of Ministers Decision #No. 99 dated 22/05/2014). 5% of the work has been completed to date.

South Lebanon and Nabatiyeh Governorates

-Execution of additional water networks in Jabal Amel – Bint Jbeil Caza: This project complements the Jabal Amel drinking water project, it includes the installation of main and secondary water networks in the villages of the Caza of Bint Jbeil, with a total cost of around US\$ 18.5 million locally funded, (Council of Ministers Decision No.99 dated 22/05/2014). 5% of the work has been completed to date.

Bekaa and Baalback-Hermel Governorates

-Completion of rehabilitation of water systems in the villages of East Zahle Caza (Part II – Section II – Groups, 1,2 and 3): The

purpose of the works is to construct local reservoirs and install drinking water distribution networks in: A'iha, Ain Harsha, Bakka, Deir el Achayer, Kawkaba, Majdel Balhis, rashaya, Tannoura, Massa, Riit, Kousaya, Kfarzabad, Faour, Majdel Anjar, Souairi, Manara and Ain Kfarzabad. The cost of the project is estimated at US \$ 24.35 million locally funded (Decrees 11064 and 10633). 55% of the work has been completed to date.

-Execution of additional water and wastewater networks in the city of Baalback and the neighboring villages – Group I: Works include the installation of additional drinking water supply networks and wastewater networks in the city of Baalback and some neighboring villages, with a total budget of US\$ 3.6 million locally funded. 5% 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 drinking 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). 5% of the work has been completed so far.

### Major contracts signed in 2015

-Annex to the contract pertaining to the completion of works to supply Kaf el Tineh-Akkar with drinking water, estimated at around US\$ 800 thousand, and funded by the Saudi Fund and the Lebanese Government.

-Two Annexes to the contract pertaining to Execution of additional water networks in Jabal Amel – Bint Jbeil Caza, estimated at US\$ 5.9 million, funded by the Lebanese Government.

-Annex to the contract pertaining to Drinking water and wastewater project in the region of Ehden, with a total budget of US\$1.3 million funded by the Lebanese government.

-Annex to the contract pertaining to drinking water project in South Akkar - Jord: The cost of this project is estimated at US\$ 1.1 million, and is funded by the Arab Fund for Economic and Social Development.

-Diversion and Rehabilitation of the water line between Nabee El Safa and Beiteddine (Mir Bashir Aqueduct): with a total budget of US\$ 3.6 million funded by the Lebanese Government.

-Greater Beirut water supply project (Awali-Beirut conveyor, and transmission lines): with a total budget of US\$ 197 million funded by the World Bank.

-Execution of various water works in Bkifa - Beit Lahia - Aiha - Haoush: with a total budget of US \$ 2.5 million, funded by the Lebanese Government.

-Execution of additional water works in Jabal Amel – Caza of Bint Jbeil: with a total budget of US\$ 21.5 million, funded by the Lebanese Government.

-Two annexes to the contract pertaining to the execution of works for the supply of drinking water in the villages of Hasbaya, Hbarieh, Kfarchouba, Ain Qania, and Chouaya in the Arkoub region: with an approximate budget of US\$ 2 million, funded by the Lebanese Government.

-Execution of additional water and wastewater networks in the city of Baalback and the neighboring villages – Group I: with a total budget of US\$ 3.6 million, funded by the Lebanese Government.

-Annex to the contract pertaining to Rehabilitation and expansion of water networks in Chekka and Anfe: with a total budget of US\$ 860 thousand, funded by the Arab Fund and the Lebanese Government.

### Major projects under preparation (2016-2018)

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 2017.

-Greater Beirut water supply augmentation project (Bisri Dam) - Phase II: the purpose of this project is to supply 500,000 m<sup>3</sup> 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 secured from the Islamic Development Bank and the World Bank. Works are scheduled for the first half of 2017.

Bekaa and Baalback-Hermel Governorates

-Rehabilitation of water systems in West Bekaa and villages in East Zahle caza: the project is funded by a US\$ 32.9 million grant from the State of Kuwait. This project is complementary to the former works carried out by the Kuwait Fund (installation of drinking 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 scheduled for end of 2016.

-Rehabilitation and improvement of drinking water systems in Zahle and surroundings: The project consists of three parts: Part I includes US\$ 5 million drinking water networks in Haoush el Omara and Ksara, funded, implemented and managed by USAID. Part II includes the drinking water networks in the city of Zahle which are fed from the drinking water treatment plant; the cost of this part is estimated at US\$ 5 million, and is implemented and managed by the Ministry of Energy and Water. Part III includes drinking water systems in East Zahle, Dhour Zahle, Touaite, Mouaalaka, Karak, Madina Sinaiya, Qaa El Reem and Hezerta. Part III is estimated at US\$ 29.7 million and is funded by the Kuwait Fund for Arab Economic Development, the budget of the Ministry of Energy and Water, the Lebanese Government and managed by the CDR. Works are scheduled for summer 2016.

-Installation of a transmission line from Mount Arab reservoir to some villages in the Rashaya Caza: This project includes the installation of drinking 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 scheduled for the summer of 2016.

-Supply of drinking water to Hermel caza: This project includes the installation of drinking water transmission pipes, construction of water reservoirs, installation of distribution networks and installation of pumping stations. The cost of this project is estimated at around US \$ 20 million funded by Treasury Loan No. 99 of 22/05/2014. Works are sched-

uled for the fall of 2016.

North and Akkar Governorates

-Project to supply drinking water to Akkar coastal area – Lot I and II: the project includes the construction of reservoirs, installation of drinking water transmission pipes, and installation of distribution networks and pumping stations servicing all the villages of the Akkar coastal area. The costs are estimated at US\$ 53.6 million, funded by the Islamic Bank for Development. Works are expected to commence in the second half of 2016.

-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.

-Completion of water network projects in Qalamoun, Koura and Fouar within North of Lebanon Water Establishment: the costs are estimated at around US\$ 4.4 million funded by an Italian Government grant. Works are expected to commence in the first half of 2016.

-Execution of the water project in Qalamoun and Ras Masqa and completion of Koura projects. The costs of the works are estimated at US\$ 14.5 million, funded by the Arab Fund for Economic and Social Development. Works are expected to commence in the second half of 2016.

-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 commence in the second half of 2016.

-Construction of a dam and lake in Wadi el Chech Valley- in the region of Cedars-Becharre: this project aims at constructing a dam and a lake in Wadi el Chech Valley, in the neighborhood of the Cedars region, in addition to a drinking water treatment plant, a pumping station, two water reservoirs and 4 km transmission lines. The capacity of the lake is estimated at 1 million cubic meter that will supply drinking water to the area of Jebet Becharre which includes: Becharre, Mar laichaa, Hadchit, Bekaa Kafra, Bkarkasha, Bazoun and Hassoun. The cost of the project is estimated at US\$ 20 million, and is expected to be funded by the Kuwait Fund. Works are scheduled for the second half of 2016.

#### Mount Lebanon Governorate

-The catchment of the Barouk spring in Chouf Caza: this project aims at increasing the drinking 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 commence in late 2016.

#### South Lebanon and Nabatiyeh 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 drinking 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. Works are expected to commence in the second half of 2016.

-Complementary works for the water systems project in Hbarieh – Hasbaya: the project is intended to install drinking water supply networks and transmission lines to complement the drinking water systems in Hbarieh in the Caza of Hasbaya, with a total budget of US\$ 8 million locally funded (Council of Ministers Decision No.99 dated 22/05/2014). Works are expected to commence during the first half of 2016.

-Execution of additional drinking water works in the area covered by Jabal Amel Water Department (Phase 3): The project includes the installation of additional drinking water supply networks and transmission lines within the framework of the drinking 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 commence in the first half of 2017.

-Execution of additional water works in Kfarrouman in Nabatiyeh – The project includes the execution of additional water networks in Kfarrouman in Nabatiyeh, with an approximate budget of US\$ 2.5 million, funded by the Abu Dhabi Fund. Works are scheduled for the first half of 2016.

## Major contracts signed during 2015

Project name	Contract amount (US\$)	Funded by	Execution starting date	Expected achievement date
Annex to the contract pertaining to the completion of works to supply kaf el Tineh - Akkar with drinking water	815,619	Saudi Fund and the Lebanese Government	Octobre 2014	August 2016
Two Annexes to the contract pertaining to the execution of additional water networks in Jabal Amel – Bint Jbeil caza	5,922,704	Lebanese Government	Octobre 2009	December 2015
Two annexes to the contract pertaining to the execution of works for the supply of drinking water in the villages of Hasbaya, Hbarieh, Kfar-chouba, Ain Qania, and Chouaya in the Arkoub region	1,937,707	Lebanese Government	November 2015	February 2016
Execution of additional water and wastewater networks in the city of Baalback and the neighboring villages – group 1	3,635,918	Lebanese Government	Octobre 2015	November 2017
Annex to the contract pertaining to the drinking water and wastewater project in the region of Ehden	1,318,909	Lebanese Government	August 2015	August 2016
Annex to the contract pertaining to drinking water project in South Akkar – Jord	1,101,766	Arab Fund for Economic and Social Development	September 2012	August 2016
Diversion and rehabilitation of the water line between Nabee El Safa and Beiteddine (Mir Bashir aqueduct)	3,628,460	Lebanese Government	July 2015	July 2016
Greater Beirut water supply project (awali – Beirut conveyor, and transmission lines):	196,989,701	World Bank	November 2015	September 2019
Execution of various water works in Bkifa - Beit Lahia - Aiha – Haoush	2,429,935	Lebanese Government	September 2015	September 2016
Annex to the contract pertaining to the rehabilitation and expansion of water networks in Chekka and Anfe	862,878	Arab Fund and Lebanese Government	October 2015	March 2017
Execution of additional Water Works in Jabal Amel – Caza of Bint Jbeil	18,734,823	Lebanese Government	June 2015	December 2016

## Major projects under preparation (2016-2018)

Project name	Contract amount (\$US)	Funded by	Execution starting date	Expected achievement date
Greater Beirut water supply augmentation project –Phase II (Construction of Bisri Dam (& Lake	617,000,000	World Bank/Islamic Bank/Lebanese Government	May 2017	May 2022
Complementary works for the water systems project in Hbarieh-Hasbaya	8,000,000	Local – (Council of Ministers Decision No.99 of 22/05/2014	March 2016	June 2017
Rehabilitation and improvement of drinking water systems in Zahle and surroundings	29,700,000	Kuwait Fund for Arab Economic Development	August 2016	August 2018
Project to supply drinking water to Akkar plain – Lot 1 & 2	53,668,000	Islamic Bank for Development	June 2016	December 2019
Completion of drinking water projects in Akkar	20,000,000	Saudi Fund for Development	September 2016	December 2018
Renovation of water systems in Minyeh - Danniyeh	7,425,000	Grant from the Italian Government	September 2016	September 2018
Completion of water networks in Qalamoun, Koura and Fouar regions within North of Lebanon Water Establishment	4,400,000	Grant from the Italian Government	April 2016	April 2018
Project for the catchment of Barouk spring in Chouf caza	1,000,000	Arab Fund for Economic and Social Development	July 2016	July 2017
Execution of additional drinking water works in areas covered by Jabal Amel Water (Department (phase 3	73,000,000	CDR's Budget (Horizon 2000) Proposed to Islamic Bank	April 2017	March 2021
Expansion of Dbayeh drinking water treatment plant	5,100,000	CDR's Budget (Horizon 2000)	December 2017	December 2018
Constuction of a dam and lake in Wadi el Chech Valley	20,000,000	Kuwait Fund	July 2016	July 2018
Installation of a transmission pipeline from Mount Arab reservoir to some villages in the caza	6,500,000	Treasury loan No.99 of 22/05/2014	June 2016	May 2017
Execution of complementary water works within the range of the South of Lebanon Water Establishment	5,880,000	Arab Fund for Economic and Social Development CDR budget (Horizon 2000)	October 2016	October 2017
Supply of drinking water to Hermel caza	20,000,000	Treasury loan No.99 of 22/05/2014	November 2016	November 2017
Execution of additional water works in Kfarrouman – in Nabatiyeh	2,450,000	Abu Dhabi Fund	May 2016	May 2017
completionExecution of the water project in Qalamoun and Ras Masqa areas and completion of Koura projects	14.500,000	Arab Fund for Economic and Social Development	April 2016	April 2017
Rehabilitation of water systems in West Bekaa and villages in East Zahle caza	32,900,000	State of Kuwait	December 2016	December 2019





Al Awali Tunnel



Location of Bisri Dam



Location of Bisri Dam

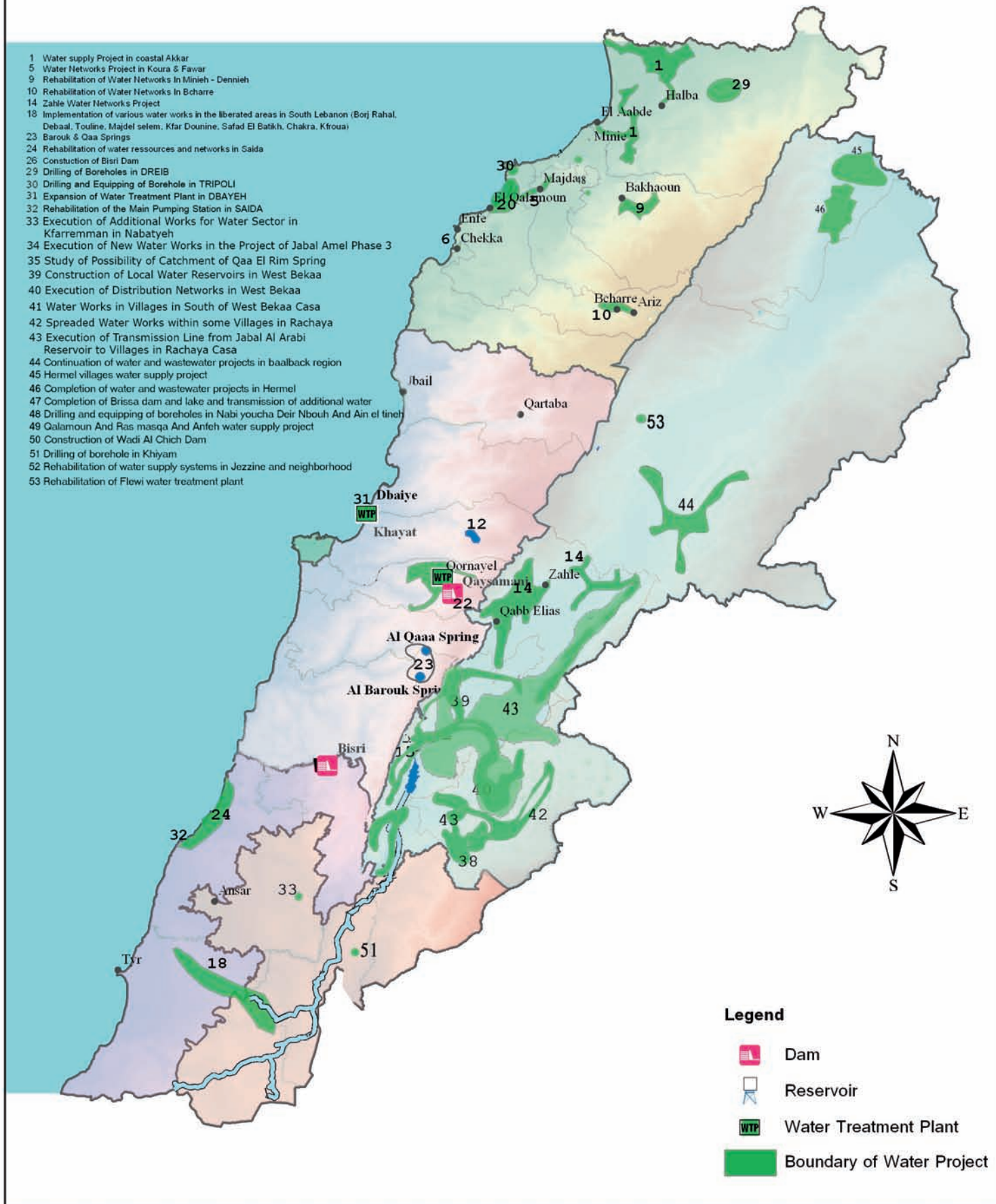


Qaysamane Dam Project



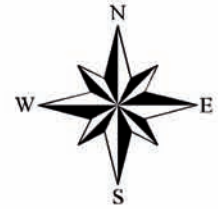
# Water supply Projects Under Preparation

- 1 Water supply Project in coastal Akkar
- 5 Water Networks Project in Koura & Fawar
- 9 Rehabilitation of Water Networks In Minieh - Dennieh
- 10 Rehabilitation of Water Networks In Bcharre
- 14 Zahle Water Networks Project
- 18 Implementation of various water works in the liberated areas in South Lebanon (Borj Rahal, Debaal, Toulne, Majdel selem, Kfar Dounine, Safad El Batikh, Chakra, Kfroua)
- 23 Barouk & Qaa Springs
- 24 Rehabilitation of water ressources and networks in Saïda
- 26 Constuction of Bisri Dam
- 29 Drilling of Boreholes in DREIB
- 30 Drilling and Equipping of Borehole in TRIPOLI
- 31 Expansion of Water Treatment Plant in DBAYEH
- 32 Rehabilitation of the Main Pumping Station in SAIDA
- 33 Execution of Additional Works for Water Sector in Kfarremman in Nabatyeh
- 34 Execution of New Water Works in the Project of Jabal Amel Phase 3
- 35 Study of Possibility of Catchment of Qaa El Rim Spring
- 39 Construction of Local Water Reservoirs in West Bekaa
- 40 Execution of Distribution Networks in West Bekaa
- 41 Water Works in Villages in South of West Bekaa Casa
- 42 Spreaded Water Works within some Villages in Rachaya
- 43 Execution of Transmission Line from Jabal Al Arabi Reservoir to Villages in Rachaya Casa
- 44 Continuation of water and wastewater projects in baalback region
- 45 Hermel villages water supply project
- 46 Completion of water and wastewater projects in Hermel
- 47 Completion of Brissa dam and lake and transmission of additional water
- 48 Drilling and equipping of boreholes in Nabi youcha Deir Nbouh And Ain el tineh
- 49 Qalamoun And Ras masqa And Anfeh water supply project
- 50 Construction of Wadi Al Chich Dam
- 51 Drilling of borehole in Khiyam
- 52 Rehabilitation of water supply systems in Jezzine and neighborhood
- 53 Rehabilitation of Flewi water treatment plant









# Water Supply Completed & Ongoing Projects



- 40 Qoubaiyat
- 41 Akroum - Kfartoun
- 42 Ain Yaacoub
- 43 Beit Mellat
- 44 Tripoli Network & Water Treatment Plant
- 45 Batroune
- 46 Nahr Ibrahim Jbeil
- 47 Meten
- 48 Raayan - Aley
- 49 Iqlim El Kharoub Central Region
- 50 Saïda System
- 51 Jezzine
- 52 Sour
- 53 Sour Rural Region
- 54 Baalbeck - Nabi Chit
- 55 Chemistar
- 56 House Connections Yammouneh
- 57 Yammouneh
- 58 Ouyon Orgoche
- 59 Nabi Youshaa & Deir Amar Well Equipments
- 60 Rehabilitation of Water Networks in Nabatiyeh
- 61 Secondary and Tertiary Networks in Beddawi
- 62 Water supply Project in Becharre
- 63 Purchase and installation of a vertical pump at Ras Al Ain pumping station, Part of Pumpin Stations Rehabilitation Project In Sour
- 64 Rehabilitation of Water Systems in CHEKKA and ANFEH in the coastal area of BATROUN and KOURA.
- 65 Complete Supply of Water for the area of BARGHASH, HRAR, KAF El Tine and QUABIIT
- 66 Execution of Water Supply Networks and Boreholes and Pumping Stations in the Cazas of KOURA and BATROUN.
- 67 Installation of Additional Water Supply Networks in AIN ED DELBE Water Establishment (previously).
- 68 Rehabilitation of Water Systems in WEST BEKAA and the Villages of EAST ZAHLE and RACHAYA - Lots 2 & 3.
- 69 Complete Supply of the Villages from HRAR and QUABIIT water Reservoirs in SOUTH AKKAR.
- 70 Project for Upgrading of Potable Water System in Jbeil Caza.
- 71 Construction of AL MANZOUZ Dam
- 72 Greater Beirut water supply project
- 73 Construction of Bisri dam
- 74 Diversion and rehabilitation of water pipeline from NabeeEsSafa and Beteddine
- 75 Complementary works for the water supply project in Hebbarye
- 76 Drilling of two boreholes and water supply works in BintJbeil
- 77 Additional water works in the caza of BintJbeil
- 78 Various water works in some villages in the caza of Rachaya
- 79 Conveyor 800



## Legend

-  Dam, Completed
-  Water Treatment Plant, Completed
-  Boundary of Water Project, Completed
-  Boundary of Water Project, Ongoing

- 1 Water supply project in Akkar El Aatiqa villages
- 2 Water supply project in El Bergosh - Hrar & Kaf El Tineh & Kabiit
- 3 Brisa dam construction (North)
- 4 Completion of water supply project in the villages of El Minnieh - Dinnieh caza
- 5 Implementation of various water works in Zaghrta
- 6 Secondary and tertiary networks in Tripoli + Add nb 1
- 7 Extension of Bahsas water treatment plant + Add nb 1
- 8 Implementation of water works in Koura & Tripoli
- 9 Construction of a new drinking water distribution network & sewerage system for Ehdn
- 10 Completion of water supply project works in Batroun
- 11 Equipping of Jaran & Aabdy water plants with electric generators
- 12 Rehabilitation of Mounseh well pumping station (Caza of Akkar)
- 13 Keserwan coastal area water supply project + Add nb 1 & 2
- 14 Construction of main waterline in Bhanes - Nabaa El Assal - Section 1
- 15 Construction of Raayan Spring - Aley water conveyor
- 16 Implementation of various water works in the region of Barouk
- 17 Drilling and equipping wells for drinking water project in a number of Southern Lebanese damaged areas
- 18 Construction of a water reservoir, water distribution networks and drilling of two new boreholes in Nabatieh, Lot 1
- 19 Construction of Nabah El Tasseh spring - Nabatieh water conveyor
- 20 Implementation of water supply and wastewater works in the caza of Sour
- 21 Drilling and equipping wells for drinking water project in a number of southern Lebanese damaged areas
- 22 Construction of a water reservoir, water distribution networks and drilling of two new boreholes in Nabatieh, Lot 2
- 23 Rehabilitation project of Taybeh water treatment plant : works + Add nb.1
- 24 Execution of potable water works in the region of Jabal Amel
- 25 Construction of water supply networks in Hebbaryieh
- 26 Rehabilitation of West Bekaa water systems & villages of east zahle Lot 1
- 27 Execution of potable water transmission lines, networks and reservoirs in the region of Bekaa
- 28 House connections construction in Baalbeck city and the villages of (Khoder, Nabi shit & Khoraybi)
- 29 Construction of service connections and additional distribution network for 17 cities in Baalbeck + Add.nb 1
- 30 House connections water supply project in Baalbeck and Aamshki
- 31 North Baalbeck region water supply project - Lot III - Phase 1 + Add nb.1
- 32 North Baalbeck - Potable water supply project - Lot 1 & 2
- 33 Drilling and equipping of water wells in Bekaa, South, Doueir & Qlaile
- 34 New water supply distribution service connections in Yammouneh and Ouyon Orgoch regions
- 35 Drilling and equipping of water wells in Bekaa, South, Doueir & Qlaile
- 36 Execution of potable water transmission lines, networks and reservoirs in the region of Bekaa
- 37 Implementation of the works of irrigation canals within the project of potable water supply the area of Hermel
- 38 QAISSAMANI Dam Project.



## WASTE WATER

Until early nineties, the wastewater facilities were limited to old networks disproportionately distributed 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 spending in the sector, in other terms the lack of investments required to improve and develop the wastewater facilities up to an appropriate service and environmental levels.
- 2) The absence of a 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, since 1992, intervened through the following waste water development strategy:

- 1) The execution of urgent repairs and renovations of the existing wastewater networks and pumping stations, and tackling the new challenges faced.
- 2) Completion of the unfinished projects that were interrupted by force-majeure, and expanding/rehabilitating networks according to needs.
- 3) Launching 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 pollution problem and the wastewater disposal 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.

At the institutional level, the promulgation of 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, organizational decrees were issued in order to achieve many goals, mainly rehabilitating and improving the level of service rendered by the water and wastewater utilities, extending their coverage, and assure the maintaining their administrative functionality and financial sustainability.

### Achievements between 1992 and 2015

The aggregate value of projects implemented to date in the wastewater sector totaled US\$ 675\* million; the main projects are the following:

- 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 equipment 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 Cazas of Baabda and Aley, the west-southern part of Greater Beirut and the northern parts of the Caza 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 Caza of Metn to the Caza 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 were completed in 2000 (with an approximate budget of US\$ 48 million), to serve 1.5 million residents living in the Beirut River catchment area.



\*the amount includes a number of active contracts, exclusive of the costs of land acquisitions.

The southern section includes the Carlton-Al Ghadir collector line which is under execution with a total budget of US\$ 14 million and designed to serve the south western part of Beirut city and part of its southern suburbs, and a part of the Caza of Baabda, while the Damour-Al Ghadir line, with an approximate budget of US\$ 9.5 million funded by the Islamic Bank, is designed to serve a major part of the Caza of Aley and part of the Caza of Chouf (more than 100,000 residents). It includes 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 separated 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 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, as well as phase 2 of wastewater collection networks in the coastal area of Sidon, with an approximate budget of US\$ 22 million, funded by Japan Bank for International Co-

operation (JIBC). This is a preparatory step to connect these networks with the lines extending to the completed treatment plant.

- Completion of the works in Tripoli wastewater treatment plant, with a total budget of EUR 92 million, and completion of works in the connected sea outfall with a total budget of EUR 6 million. Both projects were funded by the European Investment Bank (EIB). The project serves Tripoli coastal area, Al Qalamun, some sections of the Cazas 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 EUR 12 million funded by a grant from the German Government. The donor implemented 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 by a loan from the European Bank for Investment and the Lebanese Government.

- 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 Bank for Investment.

- Completion of the works stipulated in the Lebanese-French

Protocol Agreement on Waste Water Treatment with a total budget of EUR 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 El Nabi Younes), Nabatiyeh (Sharqiyeh), Chekka, Batroun (sea outfall under construction) and Jbeil. The first plant is designed to serve the coastal villages and cities of Iqlim el Kharoub; the second plant serves Nabatiyeh and a number of neighboring villages and towns, and the third and fourth plants serve the coastal towns and villages of the Caza of Batroun, whereas the fifth serves the coastal area of the Caza of Jbeil.

- Completion of the wastewater networks in the villages of the Chouf Es Souayjani Municipalities federation, with a total budget of US\$ 5.75 million, locally funded.

- Construction of a wastewater treatment plant in Baalbeck (laa) with a total budget of US\$ 6.35 million funded by the 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 net-



works in main cities: The works started in 1997 upon a Council of Ministers resolution. The works included periodical maintenance, repair of wastewater and rainwater lines in main cities, in addition to limiting the overflows and preventing breakdowns in the existing networks. The works also included the cleaning of wastewater and rainwater lines, 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, Sour, Nabatieh and their suburbs. This project was implemented in coordination with the Ministry of Interior and Municipalities.

### Progress of the ongoing projects:

1.Coastal Pollution Control Program: Lebanon 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 in cities and towns with populations exceeding 100,000 residents. Accordingly, preparations were made to execute several wastewater collection and treatment systems in the coastal areas of Lebanon. To date, the aforementioned treatment plants and affiliated collection networks were completed. The following projects are underway:

-Southern section of the main wastewater collector extending over Greater Beirut coast: Carlton-Al Ghadir section: This project covers the construction of two wastewater pumping stations and the installation of 9 kilometers of wastewater sewer

lines serving 750,000 residents, with an approximate budget of US\$ 15 million. The Islamic Development Bank (IDB) funded the Carlton-Al Ghadir collector.

All the wastewater lines and the saint Simon lifting station were completed. Currently, works are underway to complete the Carlton pumping station and connect it to electricity and put it in service.

The installation of main wastewater lines and sewer networks in a number of mountainous villages of Aley and Baabda located within the water basin of the Ghadir waste water treatment plant, with an approximate budget of US\$ 16 million, funded by the Government of Germany. 60% 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 has started by implementing phase-1 installation of main wastewater lines and sewer networks in the suburbs and a number of villages in the Caza of Metn located within the Beirut River Water Basin (Dora), with a total budget of US\$ 22 million, funded by the European Investment Bank. 80% of the work has been completed to date.

-The complementary wastewater networks connected to the wastewater treatment plant of the coastal area of Sour with a total budget of US\$ 15.4 million funded by the European Investment Bank (EIB); 95% of the work has been completed to date. Also, the installation of additional sewer networks that complement the project is underway, with a total budget of US\$ 9.25 million funded by the Lebanese Government; 50% of the work has been completed to date.

-Execution of the sea outfall connected to the wastewater treatment plant in the coastal area of Sour, with a total budget of US\$

16 million funded by the European Investment Bank (EIB); 35% of the work has been completed to date.

-The installation of wastewater networks and pumping/lifting stations in villages and towns in the coastal area of Chekka, with a total budget of US\$ 19 million, funded by the French Development Agency and the Lebanese Government; 95% of the work has been completed to date.

-The installation of wastewater networks and pumping/lifting stations in villages and towns in Batroun region, with a total budget of US\$ 17.50 million, funded by the French Development Agency and the Lebanese Government. 95% of the work has been completed to date.

-The installation of wastewater networks and pumping stations for villages and towns in Koura coastal and mid region – Phase I, with a total budget of US\$ 13 million, funded the French Development Agency and the Lebanese Government. 95% of the work has been completed to date.

-The installation of house connections related to the sewer networks in el Koura (Phase I), with a total budget of US\$ 3 million, locally funded. 60% of the work has been completed to date.

-Moreover, the Council for Development and Reconstruction launched the potable water and wastewater networks project in Jbeil coastal area, with a total budget of EUR 38 million project funded by the Government of Italy for, with EUR 19 million allocated to wastewater. 30% of the work has been completed to date.

-The installation of sewer networks and pumping/lifting stations in the coastal villages and towns of the Caza of Chouf related to the existing wastewater treatment plant in Ras Anabi



Youness, with a total budget of US\$ 16.50 million funded by the Arab Fund for Economic and Social Development and the Lebanese Government. 90% 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 defined water gravity basins and priority areas for the construction of new wastewater treatment plants to protect water resources from pollution. Later on, 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 sources and springs (Laboueh, Qaraoun Lake, Anjar, 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 2000; the wastewater collection and treatment works in the from 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 associated lines, with a total budget of US\$ 29 million funded by the Lebanese-Italian Financial Protocol, is completed and is expected to become operational soon.

In Mount Lebanon Region, the CDR completed the rehabilitation and put in service 3 sewer treatment plants in Chouf caza

(Jdeidet el Chouf, Ainbal & Gharrifeh) with local funds amounting to US\$ 1.75 million. The CDR also installed and put in service sewers lines and a treatment plant in Kafar Qatra with local funds amounting to US\$ 1.40 million.

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

The CDR recently implemented a pilot project in Becharre through 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\$ 20 million funded by the Arab Fund for Economic and Social Development (70% complete); the construction of a wastewater networks in the villages of the Union of Municipalities of Chouf-Souaijani is also underway, with a total budget of US\$ 11.50 million locally funded. 75% of the work is completed; similarly, the execution of sewer networks started in the region of Higher Chouf, with a local funding of US\$ 7.25 million.

## Main contracts signed during 2015

- Construction of a wastewater treatment plant in Khinshara in the Caza of Metn, including operation, maintenance and supervision for a period of one year, with a total budget of US\$ 8.10 million funded by the Abu Dhabi Fund and the Lebanese Government.

•Execution of the waste water sea outfall in the Fisherman Port

next to Al Manara in Beirut, with a total budget of US\$ 1.4 million funded by the Municipality of Beirut.

•Addendum to the contract related to the execution of main waste water lines in a number of coastal areas in the Cazas of Aley and Baabda located within the catchment of Al Ghadir River, with a total budget of US\$ 1.60 million funded by the German Development Agency (GIZ).

•Execution of additional wastewater networks in the coastal region connected to Sour secondary treatment plant, with a total budget of US\$ 9.25 million locally funded.

•Addendum to the contract related to the construction of wastewater networks and pumping stations in the villages and towns in coastal Chouf to be connected to Ras Nabi Younes Treatment Plant, with a total budget of US\$ 1.10 million funded by the Arab Fund for Economic and Social Development and the Lebanese Government.

•Execution of waste waterhouse connections in Zawtar, Kfar Sir and Yohmor, with a total budget of US\$ 0.60 million locally funded.

•Completion of wastewater networks in the regions of Higher Chouf, with a total budget of US\$ 7.25 million locally funded.

•Addendum to the contract pertaining to the construction and installation of wastewater networks in the villages of Chouf Es Souayjani Municipalities federation, with a total budget of US\$ 2.70 million locally funded.

•Operation and maintenance for a period of two years of the wa-



ter and waste water systems in the regions of Baalbeck - Al Nabi Sheet system, and the villages located in the North of Baalbeck with a total budget of US\$ 3.3 million locally funded.

### **Main Projects under Preparation (2016-2018)**

#### **1-Coastal Pollution Control Program:**

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

The CDR secured also a EUR 70 million financial assistance from the European Investment Bank to construct two wastewater treatment stations on the Kesrwan coastal zone, and another EUR 70 million financial assistance from the French Development Agency to install the associated networks. Work is underway to update the studies and develop the tender documents pertaining to this project.

Similarly, the CDR is also preparing to launch the project for wastewater pre-treatment plant in Dora (northern Beirut) and its associated remaining networks after securing a EUR 60 million financial assistance from the European Investment Bank. The execution of the waste water networks component for this project is underway.

Also, the feasibility study for the upgrading of Al Ghadir wastewater pre-treatment plant (South of Beirut city) was recently updated. The CDR secured necessary funds to cover the costs of Phase I works which includes the construction of the complementary wastewater networks, and the upgrade of the existing pre-treatment plant with a total budget of US\$ 173 million through negotiations held with the European Investment Bank and the Islamic Development Bank.

On the other hand, the CDR obtained a US\$ 100 million additional funding for the continuation of water and wastewater projects in a number of coastal and inland Lebanese regions, including the Akkar coastal area, where the cost of the project and the of wastewater collection and treatment is estimated at around US\$ 40 million. Preparations are underway to release the first associated call for tenders, and to continue the construction and installation of waste water networks in the Chouf coastal area connected to Ras Nabi Younes treatment Plant.

The CDR recently initialed a US\$ 65 million loan, with the Kuwait Fund, to fund the execution of Sarafand system in the Caza of Saida for the collection and treatment of waste water in the coastal areas extending from Zahrani to Qasmieh River.

Also the CDR obtained a US\$ 5 million grant from the Kuwait Fund to complete the waste water network in El Mina in Tripoli and connect it to the coastal line extending to the existing treatment plant, and a US\$ 7 million grant to complement the waste water network in Dekerman area in Saida and connect it to the coastal line extending to the existing pre-treatment plant.

The CDR is also working on acquiring the required funds for the upgrade of the existing Saida

Waste Water pre-treatment Plant.

**II-Water Resources Protection Program:** The Ministry of Energy and Water and the CDR have identified around 20 inland wastewater projects to protect water sources (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 is directed towards 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) to finance water and waste water projects in a number of Lebanese areas. Chebaa, Becharre, Safa and Barouk areas also benefit from this loan. The CDR recently obtained an additional loan of US\$ 100 million to fill the financial gap and continue the implementation of these projects.

The CDR also obtained a EUR 27 million loan from the German Agency KfW to implement a project estimated at US\$ 38 million to protect the Jeita spring from pollution. The related studies are underway. The project is divided into three phases aiming at collecting and treating wastewater generated from towns and villages situated within the catchment area of Daraya, Kleiat, Bekaata, Bkaatouta, Kfardebien and neighboring cities in the Caza of Kessrouan.

Moreover, the CDR is conducting the necessary studies prior

to launching 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 is also preparing to launch the bidding for 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 from the Italian Protocol.

The CDR also received a US\$ 46 million loan from the Kuwait

Fund for Arab Economic Development to implement wastewater collection and treatment systems in the villages in Marjeyoun and Bint Jbeil in Nabatiyeh governorate. In addition, the CDR received a EUR 15 million grant from the European Union to complement 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, and complement the waste water network and connect it to the existing plants in Ablah and Forzol in the Caza of Zahle.

In accordance with the Council of Ministers' Decision No. 99 dated 22/05/2014, The CDR is preparing for the execution of the following projects:

Project	Estimate Value (in million US\$)	Caza
Wastewater project in Chahar el Gharbi	5	Aley
Execution of wastewater networks in Sour	39	Sour
Wastewater in Jezzine and neighboring area	5	Jezzine
Completing the wastewater and drinking water project in some villages of the Caza of Baalbeck	10	Baalbeck
Waste water project in Laboueh	15	Hermel
wastewater in Rashaya	5	Rashaya

#### Schedule of main contracts signed in the wastewater sector during 2015

Project	Estimated value (US\$ million)	Source of Funding	Commencement Date	Scheduled Completion Date
Addendum to the contract related to the execution of main waste water lines in coastal regions in the Cazas of Aley and Baabda, located within the Al Ghadir River Catchment area	1.60	German Development Agency (KFW)	February 2015	September 2016
Execution of additional wastewater networks in the coastal region of Sour caza	9.25	Lebanese Government	September 2015	August 2017
Addendum to the contract related to the construction of wastewater networks and pumping stations in the villages and towns of coastal Chouf	1.1	Arab Fund for Economic and Social Development and Lebanese Government	July 2015	July 2016
Construction of a wastewater treatment plant in Khinshara in the Caza of Metn, including operation, maintenance and supervision for a period of one year	8.10	Abu Dhabi Fund and Lebanese Government	May 2015	April 2017
Operation and maintenance of water and waste water systems in the regions of Baalbeck, Al Nabi Sheeth system, and the villages located in the North of Baalbeck city.	3.25	Locally funded	March 2015	March 2017
Execution of the waste water sea outfall in the Fisherman Port next to Al Manara - Beirut	1.425	Municipality of Beirut	August 2015	July 2016



Completion of wastewater networks in the regions of Higher Chouf	7.225	Locally funded	November 2015	December 2017
Execution of wastewater House connections in the villages / towns of Zawtar, Kfar Sir and Yohmor	0.60	Lebanese Government	January 2015	July 2015
Execution of wastewater networks in the villages of the Chouf Es Souayjani Municipalities federation	2.70	Locally Funded	November 2015	January 2017

### Schedule of main projects under preparation in the wastewater sector during 2016-2018

Project	Estimated value (US\$ million)	Source of Funding	Commencement Date	Scheduled Completion Date
<b>Coastal pollution Control Program</b>				
Construction of sewer networks and a treatment plant with sea outfall in Akkar coastal area	62	Arab Fund + Local Funding	December 2016	November 2019
Construction of sewer networks and two wastewater treatment plants in Keserwan coastal region	175	European Investment Bank + French Development Agency + EU + NIF	December 2016	December 2021
Construction of additional sewer networks and a preliminary treatment plant in Beirut River catchment area	45	European Investment Bank	May 2017	May 2020
execution of additional sewer networks in Ghadir River catchment area	86	European Investment Bank	December 2017	December 2021
Construction of sewer networks and a treatment plant with its sea outfall in the region of Sarafand in saida Caza	67	Kuwait Fund	December 2017	December 2020
Expansion and development of waste water treatment plant Ghadir-South of Beirut	97	AFESD	December 2017	December 2021
execution of additional sewer networks in Sour coastal area – Phase II	29.50	Locally funded	May 2017	December 2019
<b>Water Resources Protection Program</b>				
Construction of sewer networks and a treatment plant for Mechmech –Akkar	31	Italian Protocol	February 2017	December 2019
Construction of sewer networks and treatment plant for Bakhoun Dannieh	19	Italian Protocol	December 2018	December 2020
Construction of a sewage treatment plant for Bcharre	8	AFESD + Local funding	December 2015	September 2016
Construction of sewer networks and treatment plant for Hrajel-Keserwan	24	Italian Protocol	February 2017	December 2019
Construction of sewer networks and treatment plant for Jeita-Keserwan (Sections 1, 2 and 3)	38	German Agency KFW + local funding	December 2016	June 2019
Construction of sewer networks in Chahhar - Caza of Aley	5	Local Funding	December 2016	December 2017
construction of sewer networks in Jezzine	5	Local Funding	December 2016	December 2017
Construction of sewer networks and treatment plant for Bint Jbeil	11	Italian Protocol	December 2018	December 2021
Construction of sewer networks and treatment plant for Hasbaya	8	Italian Protocol	December 2018	December 2021

Construction of sewer networks and treatment plant for Arqoub region	30	Arab Fund + Local Funding	July 2017	December 2019
Construction of sewer networks and treatment plant for Jbaa - Nabatiyeh	7	Italian Protocol	July 2018	December 2020
Construction of sewer networks and treatment plant for Hermel area	20	Italian Protocol	July 2018	December 2021
Construction of sewer networks and treatment plant for Laboueh	15	Local funding	July 2017	December 2019
Construction of a treatment plant and sewer networks in central and northern Bekaa in the Litani basin	30	AFESD + Local Funding	December 2016	December 2019
Construction of a treatment plant and sewer networks in Anjar, and Majdal Anjar area ( Phase- I)	26	Italian Protocol	December 2016	December 2019
Construction of a treatment plant and sewer networks in Anjar, and Majdal Anjar area (, Phase- II)	26	World Bank	December 2016	December 2020
Wastewater collection and treatment in municipalities of Marjeyoun and BintJbeil Cazas in Nabatiyeh	58	Kuwait Fund	December 2016	December 2019
Execution of sewer networks in Rashaya	5	Local funding	January 2017	December 2017
Execution of wastewater networks related the two treatment plants in Ablah and Forzol	5	European Union	July 2017	July 2018



Waste water treatment plant - Barouk



Waste water treatment plant - Nabaa Al Safa

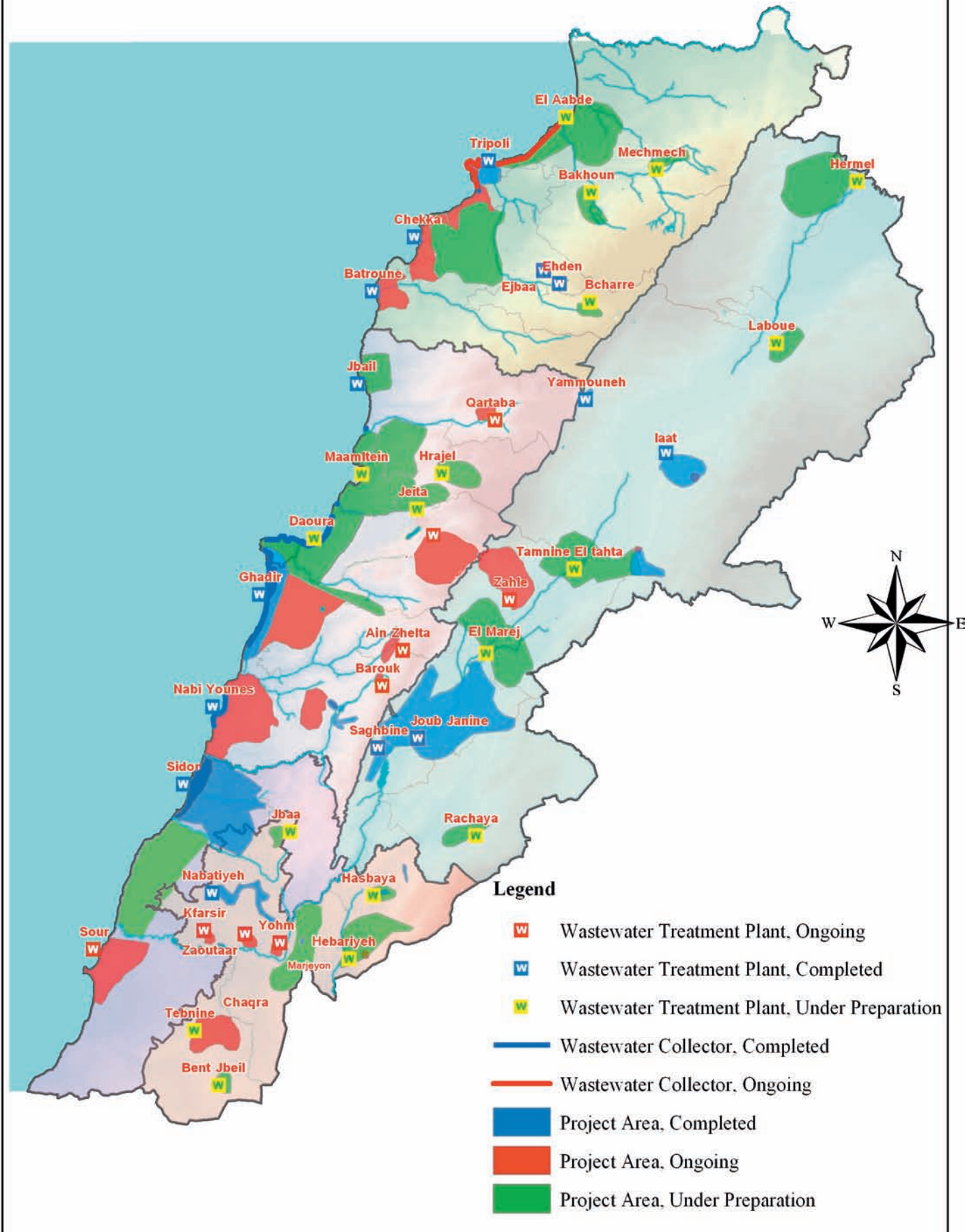


Waste water treatment plant - Nabaa Al Safa



Waste water treatment plant - Nabaa Al Safa

# Wastewater Completed, Ongoing & Under Preparation Projects





## HOUSEHOLD SOLID WASTE

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 to be 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 waste-to-energy technologies in large cities;
- 2-Adopt the 2006 master plan and study the possibility of adoption of waste-to-energy 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;

10-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 under-way.

- 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 (1992-2014) period**

The Lebanese governments had not adopted 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 Amroussieh 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 1200°C, 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 op-

erating 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 Khoury 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 dump site: 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 a number of solid waste management and treatment plants and procurement 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 equip-

ping 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).

### Progress during 2015:

Tenders to outsource 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 mu-





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 17/07/2015) 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.

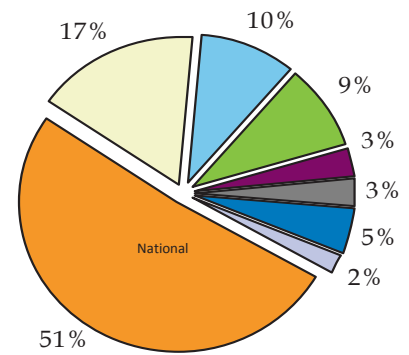
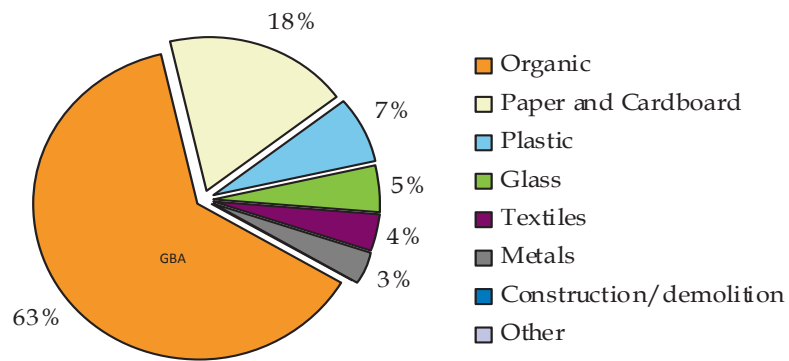
Construction of several solid waste management and treatment plants and procurement of their necessary equipment, under the execution of the Office of State for Administrative reform (OMSAR) and with the financial assistance of the European Union: on 27/08/2015, the Council of Ministers approved the 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.

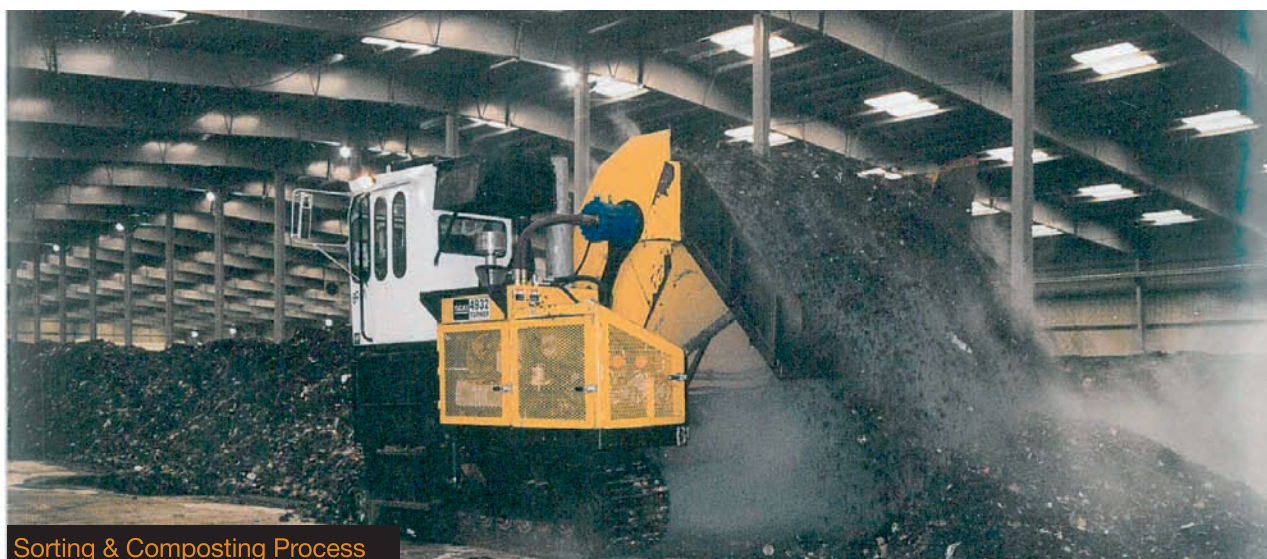
Expropriation and rehabilitation of the Ras el Ain waste dumpsite in Sour: On 22/05/2014, the Council of Ministers issued decision No. 99 regarding the approval of a list of projects suggested by the Ministry of Finance among which the expropriation of the Sour – Ras el Ain garbage mountain (US\$ 2 million). 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. The study and the expropriation file are expected to be finalized during the second half of 2016.



Zahle Landfill Rehabilitation



Zahle Landfill Rehabilitation



Sorting & Composting Process

## AGRICULTURE AND IRRIGATION

•Current situation of the agricultural sector

Agriculture in Lebanon relies on individual initiatives, under a liberal and open economic system. This sector has witnessed major changes during the past three decades, namely:

- An increase of 36% in the number of farm holders working in agriculture to 195 thousand agricultural investors;
- An increase of 155% of the size of irrigated to 142 thousand hectares out of 277 thousand hectares of cultivated lands;
- Fragmentation of agricultural lands, whereby the size of 75% of agricultural areas do not exceed 1 hectare and represent only 20% of the total cultivated area.

The agricultural sector, though contributing only to 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.

85% of available water supplies are consumed by the agricultural sector. This high water demand puts additional stress on irrigated farming, leading to an increase in the number of abandoned lands due to the lack of water or to a decline in investment opportunities and agricultural profits for smallholders.

The Lebanese agricultural production is 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, namely water, overcome the obstacles limiting its competitiveness, and preserve the environment.

### •Main Challenges

There are two types of agriculture in Lebanon: commercial agriculture, generally efficient, modern, depending on adequate financial resources for investment and exploiting every potential profit. This type of agriculture is practiced 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. The second type is an agriculture mainly devoted to the preservation of cultural and family heritage. It is practiced in smallholdings with no investment or profit opportunities, and considered as extra income and as subsistence agriculture. 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, and which target farms able to respond effectively.

As for agricultural markets, they are unstable and have an adverse effect on farmers' income due to the weakness and lack of transparency of marketing operations. This is also due to the marketing policies of operators in the agribusiness which are not usually in the farmer's interest. 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 using 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.

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

The burden of the Israeli July 2006 war fell 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 resulted in heavy losses that exhausted agricultural laborers and exacerbated the Lebanese farmers' frustration. To face all these challenges, it was



imperative to assess damages, put a quick contingency plan in place and secure the necessary funding for it, simultaneously with the initial plan designed for this sector.

#### •A Vision for the Future

To address the growing water needs in the future, an integrated development strategy will have to be implemented to use the available water resources more efficiently and sustainability by rehabilitating the existing water facilities, finding additional water sources including the construction of 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 around 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 agricultural products that have an added value and are processed 2) ensuring continuous market supply of quality products in sufficient quantities and on time, and 3) considering the development of investable farming units.

Due to the fact that 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, farmers in particular, 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 to 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 upgrading of laws that regulate the exploitation of agricultural lands, the laws on 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 of increasing importance in 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.

#### 2- Main achievements until 2015

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 are likely to contribute to the devel-

opment 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 provided 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 sought a grant from the European Union 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 led to the creation of the agricultural strategy and a five-year agenda for the Ministry of Agriculture (2005-2009).

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), WestBekaa (2000 ha), Yam-mounneh (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. A part of the advisory functions 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.

In addition to the above, 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 allocated funds from its annual budget to the project on the Rehabilitation of Livestock Production for smallholders in the Bekaa.

The CDR also participated, through coordination 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 allocated 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 neces-

sary 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.

In 2012, the construction of an irrigation line in Khiam was completed, in addition to the construction of a rainwater drainage network in Nabatiyeh, rehabilitation of a water pond 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 socioeconomic 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, to be used in irrigation and in drinking water supply— Phase I:

- The CDR signed a consultancy contract with theLahmeyerInt. GmbH/JBJ Gauff/ingenieur/ D.A.H “Shair& Partners” Group, whereby the completion of the executive studies of all contracts is awarded to the Group. The consultant 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 consulting group in terms of 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 execution of the contract related to the provision of institutional support and technical assistance to the Litani River Authority to provide oversight of the project that has commenced in 2007.

- Moreover, the CDR has initiated

the implementation of the “Local Development Project in Northern Lebanon” ADELNORD, on the date of signature of its financing agreement on July, 6 2009. This project is funded by a European Union grant.

•As an initial phase, the CDR sought the assistance of a delegation of technical experts from the European Union (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 October, 18 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 supervisor 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 has 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 irriga-

tion 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.

During 2012, feasibility studies and detailed plans were completed and delivered 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 European Union 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 2014, the CDR started supervising the execution works in different areas covered by the project. The CDR also initiated infrastructure works 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.

Furthermore, within the framework of 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 9 clusters, and led to the identification of nine socio-economic development projects that respond to the needs of these rural areas. Based on this, contracts were signed between the CDR and each cluster represented by official local actors to implement these nine projects.



In 2014, the CDR continued to implement the nine socio-economic development projects under the supervision of ESFD in nine clusters distributed on the project targeted areas and summarized as follow:

Cluster	Proposed Project
Fnaideq	- Creation of waste treatment plant
Machta Hassan	- Equipping of medical center
Hrar	- Rehabilitation of irrigation canals
	- Equipping of vocational training center
	- Socio-cultural municipal complex
Beit Youness	- Rehabilitation of irrigation canals
	- Purchase of waste containers and waste collection vehicles
Old Akkar	- Installation of an integrated system for waste water treatment
Wadi Khaled	- Equipping and improvement of the services of Makassed Health Center
	- Equipping Schools and improvement of vocational and school education
Kfarbanine- Din-niyeh	- Rehabilitation of drinking water and irrigation network
	- Equipping of a health center
	- Construction of a school playground
	- Development of capabilities and skills of civil societies in the region
South Hermel	- Digging wells, rehabilitation of networks and drinking water storage
	- Support agricultural cooperatives
North Hermel	- Digging wells, rehabilitation of networks and drinking water storage

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 plan studies.

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) according to the above mentioned terms of reference. In this context, the Diagnostic mission and the draft plan were completed in cooperation with local authorities.

And as part of the technical assistance provided for the establishment of a national park in the mountainous areas of Akkar, 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 pre-

sented 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 was ratified by the concerned parliamentary committees. Moreover, in 2014 the CDR completed the preparation of the draft decree on natural reserves which have been presented 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 initiated the 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 European Union.

The CDR also allocated US\$ 8.4 million of the OPEC loan to the "Green Plan" with a view to finance the Hilly Areas sustainable Agricultural Development Project "Hasad" aiming at constructing hills 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 determined for the implementation of this project.
- Agreement was reached to identify the location of 20 hill lakes expected to be implemented within the project and is distributed as follow: Bouday, Younin, Amiri al Moudwi, Bar-ka, Al Zarazir, Ain Al Biniyeh,

Nahle (Bekaa), Ayta Al Shaeb, Aytaroun, BaytLif, Chibaa, Kfar-chouba, MajdelSalem (Nabatiyeh), Ehmej, Baadran, Kfarmata, Kornayel, Mechmech (Mount Lebanon), Karam Al Moher (North), and Mounjez (Akkar).

- Execution and supervision works were awarded for 8 hilllakes: Bouday, Ain Al Biniyeh, Nahle (Bekaa), Ayta Al Shaeb, Aytaroun, BaytLif, Chibaa (Nabatiyeh), and Ehmej (Mount Lebanon).

It is worth noting that 160 contracts were signed in the agriculture sector between 1992 and the end of 2015, of which 134 were completed and 26 are current active projects, with a total value of US\$ 45, 96 million.

### 3- Work Progress in 2015

Regarding the Canal 800 Project – Phase I, aimed at transporting water from Litani River to southern Lebanon to be used in irrigation and in drinking water supply, Kharafi/Veziroglu/Guris has initiated the implementation plans, which are supervised by Lahmeyer Int. GmbH/JBJ Gauff/ingenieur/D.A.H "Shair& Partners".

Several agricultural and irrigation projects are currently underway at municipal level through the initiative of the "Social Development Fund", funded by a European Union grant and contributions from concerned municipalities in particular in the South and Akkar.

Regarding the Hilly areas Sustainable Agricultural Development Project "HASAD", the CDR continued to provide the necessary funds to complete the 8 hill lakes in the following regions: Bouday, Ain Al Biniyeh, Nahle (Bekaa), Ayta Al Shaeb, Aytaroun, BaytLif, Chibaa (Nabatiyeh), and Ehmej (Mount Lebanon) as well as continuing the works in collaboration with the "Green Plan".

In the framework of the "Technical Assistance to the Local Development Support Project in North Lebanon" ADELNORD, funded by the European Commission and implemented by the CDR in coordination with the technical assistance staff (GFA-ELARD) and the field supervisor, as well as the Economic and Social Fund for Development (ESFD). The CDR continued during 2015 to receive the works of the infrastructure component composed of 6 groups of projects i.e rehabilitation of agricultural roads, restoration of irrigation canals and construction of water collection lakes.

As for the local development component of ADELNORD, in 2015, the nine development and social projects were delivered to the ESFD, in nine clusters of villages across the projected target area.

Concerning the environmental component of ADELNORD Project, the following was achieved in 2014:

1)The final version of the "Development of a Sustainable Strategic Plan for Akkar, Hermel and Danniyeh" was completed in coordination with a team of experts specialized in environment sciences, economics, and urban planning and social development, assigned by the technical assistance (GFA-ELARD) established for this purpose in coordination and consultation with local authorities.

2)Within the framework of Fire Suppression and Forest Protection and Management, the CDR continued to follow up on Phase II of this mission, upon the request of the Minister of Agricul-



ture, in particular the following:

1. Implementing a training program targeting forests guards and local activists;
2. Supplying of forest management tools and supplies;
3. Proposing a follow up mechanism to implement the two management plans of the Forest of Andkit and Safira.

The French Development Agency (AFD) showed an interest in the National Afforestation Program “40 Million Tree”, a program prepared and implemented by the MoA in collaboration with different local bodies and donors, and constituting a cornerstone of the MoA's current work plan.

To that end, AFD dedicated a special delegation that elaborated 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 have to be subcontracted by the CDR in close collaboration with the Ministry of Agriculture and with the financial assistance of AFD.

Based on the above, the CDR in collaboration with the stakeholders in the Ministry of Agriculture and AFD prepared the

above-mentioned studies tender document within the framework of contributing to the National Afforestation Program “40 Million Tree” funded by the AFD, with a budget of 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 Environnemental et Social (EIES)), with a budget not exceeding EUR 150,000.
- Phase 2: preparation of the Detailed studies (Avant Project Detaille (APD)) and the tender document (Dossiers de Consultation des Entreprises (DCE)), with a budget not exceeding EUR 150,000, on an optional basis for CDR. Phase 2 will kick off in the light of the findings of Phase 1.

A call for tenders to carry out this mission was released.

On a different note, the CDR prepared the draft for the Sustainable Socio-economic Development of Lebanese Coastal Communities, in close collaboration with the Ministry of Agriculture and the Italian Development Cooperation, with a view to develop the agricultural sector and the Fisheries industry in five Lebanese Coastal cities.

The CDR, through its participation in coordination committees, is following up on 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. National Food Security Program committee in cooperation with the Food and Agriculture Organization of the United Nations (FAO).

6. The steering committee of the Hilly Areas Sustainable Agricultural Development Project “HASAD”.

7. The steering committee of 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 of Promoting the Production and Marketing of Lebanese Agricultural Production.

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.

#### 4- Main projects under preparation for 2016:

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 the eight lakes previously subcontracted; the CDR will also continue to secure funding from the OPEC loan to construct the remaining planned lakes, in close collaboration with the “Green Plan – المشروع الأخضر”.

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:

- Supervise the delivery of prior-



ity local development projects in the different village clusters under the supervision to the Economic and Social Fund for Development (ESFD).

- Coordinate with the Ministry of Environment with regard to the approval and enforcement of the draft implementing decree on natural reserves.

- Coordinate with MoA with regard to the endorsement 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.

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

- The CDR will continue the implementation of the project subcontracted to Kharafi/Veziroglu/Guris in 2012.

- The CDR will continue overseeing the implementation of the project through the advisory contract with the merger group LahmeyerInt.GmbH/JBJ Gauff/ingenieur/D.A.H “Shair& Partners.

- In 2016, the CDR will seek to subcontract the Supervisory Control and Data Acquisition (SCADA), with the technical assistance of the consultant and in agreement with the Arab Fund.

- The CDR will also seek to secure the necessary loan (approximately US\$ 18,000,000) to implement Phase II of the project, scheduled from 2016 to 2020, inclusive of studies, 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 13,000 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).

Concerning the locally funded project for the restoration of the lake of Mechmech in Akkar, the CDR completed the tender document awaiting initiation of bidding process.

Within the framework of contributing to the National Afforestation Program “40 Million Tree”, the CDR will subcontract the mission of preparing Phase 1 of the studies (APS,APD/DCE, and EIES) funded by AFD with a total budget of EUR 300,000, in coordination with the Ministry of Agriculture stakeholders.

The CDR will work towards developing a final 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, in order to subcontract works in the near future.

The CDR will continue to provide oversight over the work of the coordination committees in partnership 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 2016

Project	Estimated value (US\$)	Source of Funding	Expected date to resume work	Scheduled completion
Restoration of the lake of Mechmech	300, 000	CDR	June 2016	September 2016
Water transfer from Litani River to the South of Lebanon for drinking water and irrigation–(Subcontracting of the Supervisory Control and Data Acquisition Contract SCADA) – under Phase I	2,242,000	- AFESD - KFAED	February 2016	February 2018
Water transfer from Litani River to the South of Lebanon for drinking water and irrigation (Canal 800) – Phase II: Studies, supervision and works	18,000,000	- KFAED - CDR	June 2016	July 2021



Aakar Agricultural Road



Aakar Agricultural Channel



# Agriculture & Irrigation

## Completed, Ongoing & Under Preparation 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 – 2015)

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 of the Lebanese Radio (الإذاعة اللبنانية), the building of the Ministry of 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 2015, regarding contracts signed before 2015. 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

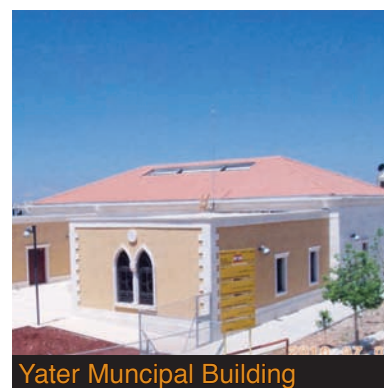
Institute (IRI) in Hadath. In the studies pipeline also: the renovation and rehabilitation of the governmental Saray in Baabda; the maintenance and rehabilitation of the facility of the National Institute for Administration; the outsourcing of studies to build prisons across all Lebanese territories, Sarays in Halba, Baalback, Sour, and a justice palace in Nabatiyeh.



Abbasseye Municipal Building



Ansar Municipal Building



Yater Municipal Building

## 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	Sept 2016	March 2017
Study for site works execution at Halba Saray	6,800,000	Lebanese Government	April 2017	September 2018
Study for site works execution at Baalback Saray	172,260	Lebanese Government	Sept 2016	January 2017
Execution of site works at Baalback Saray	6,800,000	Lebanese Government	February 2017	August 2018
Study for site works execution at Nabatiyeh Justice Palace	174,000	Lebanese Government	January 2016	October 2016
Execution of site works at Nabatiyeh Justice Palace	6,800,000	Lebanese Government	January 2017	January 2019
Updating the study pertaining to the execution of site works at Sour Saray	90,000	Lebanese Government	June 2015	December 2016
Execution of site works at Sour Saray	6,800,000	Lebanese Government	January 2016	June 2019
Construction of a building complex in shhim	5,000,000	Lebanese Government	December 2016	June 2019
Establishing a unified customs building on a land annexed to Beirut port	20,000,000	Lebanese Government	January 2017	July 2018
Renovation of customs building in Aarida	7,000,000	Lebanese Government	March 2017	September 2018
Renovation of customs building in Bqayaa	2,000,000	Lebanese Government	March 2017	March 2018
Renovation of customs building in Kaa	7,000,000	Lebanese Government	December 2017	July 2018
Rehabilitation of customs buildings in Aaboudiye	7,000,000	Lebanese Government	June 2017	August 2019
Rehabilitation of customs buildings in Sour	1,000,000	Ministry of Public Works Budget pursuant to Decree 2002/7606	January 2017	July 2018
Construction of the Ministry of Foreign Affairs in "Solidere"	8,000,000	Lebanese Government	January 2017	August 2018
Construction of Ministry of Finance building in Baabda	30,000,000	Lebanese Government	January 2017	August 2018
Project to renovate the CDR building	800,000	CDR Budget	December 2016	October 2017
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	February 2017	February 2018
Construction of a prototype jail in Majdalia	60,000,000	Lebanese Government	October 2016	October 2019



Government Building Complex - Chehim



Renovation of Roumieh Prison

## FUNDING

The funds awarded to the Lebanese Reconstruction Program are made under loan agreements approved by the government and ratified by the Parliament, and grant agreements enforced by governmental decrees. The total value of foreign funds (grants and loans available to-date) received between 1992 and end of 2015 reached US\$ 11,240 million, calculated at the exchange rates recorded at the end of 2015; the following table details out the total foreign funds received:

	Grants	Loans	Total
Amount in million USD[1]	3,300	7,940	11,240
% of total	30%	70%	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 other ministries and government administrations that contribute to the implementation of other parts of this program.

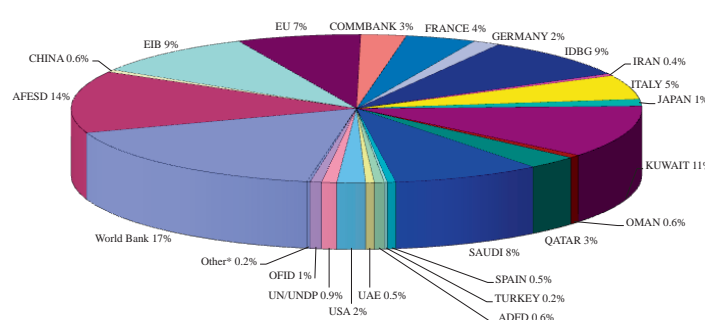
Sources of awarded foreign funds: Around 47 funding sources have contributed to the Reconstruction Program, of which 23 main foreign sources contributed to more than US\$ 10 million each, as detailed out in Chart 1.

It is noteworthy that 11 main foreign funding sources have contributed to more than %90 of the total foreign funds, i.e: the International Bank for Reconstruction and Development (IBRD) (%16.90), the Arab Fund for Economic and Social Development (AFSED) (%13.54), Kuwait Government and the Kuwait Fund for

Arab Economic Development (KFAED) (%11.41), the European Investment Bank (EIB) (%9.48), the Islamic Development Bank (IDB) (%8.91) the Kingdom of Saudi Arabia and the Saudi Fund for Development (%8.38), the European Union (EU) (%7.02), Italy (%5.32), France (%3.98), Qatar (%2.91), commercial banks (%2.58). The total value of the funds received reached US\$ 11,240 million, an increase of US\$ 741 million compared to the total value of funds received by the end of 2014.

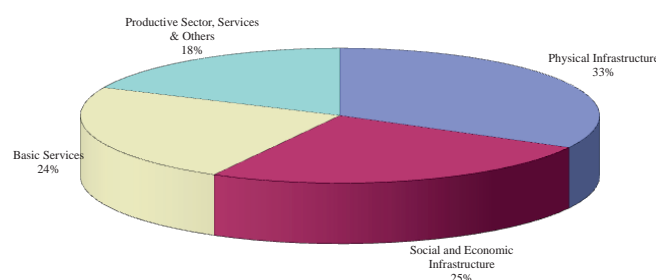
Distribution of awarded foreign funds by sector: Chart 2 details out the distribution of the total foreign funding received to date by the main sectors. The share of foreign funds obtained by basic infrastructure sectors reached %33, mainly targeting electricity, telecommunications, and air, land, and sea transportation. The share of social sectors amounted to %25, targeting education, public health, housing compensations, youth affairs and sports, land arrangement and environment. Whereas, the share of basic services sectors stood at %24 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 %18 of the foreign funds received.

Chart 1  
Percentage Share of Loans & Grants  
Ratified Signed & Approved Foreign Financing  
Distribution by Fund



\* Other Funds financing less than USD 5 Millions in Loan & Grants are the following : AGFUND, ARAB LEAGUE, ARGENTINA, BELGIUM, GREECE, IRELAND, KOREA, METAP, NETHERLANDS, SWEDEN, GEF, HRC and Private Donors.

Chart 2  
Percentage Share of Loans & Grants  
Ratified Signed & Approved Foreign Financing  
Distribution by Sector



### New Funds

The foreign funds obtained during 2015 reflects the efforts made by the CDR to translate foreign funds promises into awarded funds, which would only require completion of certain legal and administrative procedures to become effective. The total value of foreign funds secured in 2015 reached around US\$ 796 million: US\$ 623 in the form of loans and of US\$ 173 million in the form of grants. Below are summarized the main loan and grant agreements signed and ratified in 2015:

#### The World Bank (WB)

1. Lebanon Water Supply Augmentation Project (Construction of Bisri Dam): In 2015/01/21, a funding agreement was signed to finance the construction of Bisri Dam.



The World Bank approved to grant Lebanon a US\$ 474 million loan to the project, of which US\$ 155 million is allocated for real property acquisitions and the remainder for construction works. The agreement was ratified on 2015/11/24 and announced to be effective on 2015/12/15.

2. Anti-pollution Project in the area surrounding Litani River Basin (Karaoun Lake) in the Bekaa:

In 2015, preparations were made for an agreement to fund a project aimed at protecting the Qaraoun Lake from pollution, of a value of US\$ 55 million; the draft agreement was negotiated with the World Bank in May 2015. It will be signed after the approval of the Council of Ministers.

The European Investment Bank (EIB)

In 2015, two agreements were signed with the EIB:

1. The loan agreement of the Lebanese Highway Rehabilitation Project– Phase 2, according to the Decree No. 2303 dated 24 November 2015. The loan agreement finances the works and the oversight services related to the expansion and renovation of Nahr El Kalb – Tabarja Highway A1, construction of motorways, construction of a new interchange, construction of viaducts and bridges. The project is implemented by the CDR and financed by the EIB in the form of EUR 75 million soft loans repayable over a period of 20 years starting at the withdrawal date.

2. The loan agreement aimed at financing private sector projects in the field of energy efficiency and renewable energy, according to the Decree No. 2302 dated 24 November 2015. The agreement provides financial assistance to the private sector in the field of energy efficiency and renewable energy, in line with the Central Bank of Lebanon's policy aimed at supporting the energy sector and through financial intermediation of commercial

banks. The agreement is implemented by the Central Bank of Lebanon and financed by the EIB in the form of EUR 50 million soft loans repayable over a period of 15 years starting at the withdrawal date.

In addition, in December 2014, the EIB agreed to co-finance with the Islamic Development Bank the expansion of Al Ghadir Waste Water Treatment Station and the renovation of the connected networks of the station (part of Beirut and western southern suburbs). The EIB approved a EUR 68.5 million draft soft loan, on the condition that one of the waste water treatment stations in Tripoli or in Sour becomes operational.

The Islamic Development Bank (IDB)

In 2015, a number of financing agreements were prepared and approved by the Islamic Development Bank (IDB). Key areas of progress include:

1. Jabal Amel Water Project (Phase III)

On 2015/03/08, the Islamic Development Bank (IDB) approved to provide a US\$60.97 million financial assistance of to the Jabal Amel Water Project. The project aims at supplying drinking water to a number of towns and villages in Jabal Amel, through the installation of pumping stations and water networks.

The Council of Ministers approved the funding agreement and mandated the CDR's president to sign on behalf of the Lebanese government. The agreement was signed during the visit of IDB's chairman to Lebanon on 2016/03/24.

2. Financing of the project on the Reconstruction of Bir el Heith – Qartaba road (Phase III)

On 2015/12/06 the IDB approved to finance the project aimed at re-constructing the Bir el Heit – Qartaba road (Phase III), with a total budget of US\$ 20.7 million. The project is intended to complete the road leading

to Qartaba. The agreement is expected to be presented to the Council of Ministers during 2016.

3. Construction of North Expressway – (Eastern Ring of Tripoli) – Phase I

On 2014/11/30, the Islamic Development Bank (IDB) approved to finance (US\$ 69.5 million) the Road Network Improvement Project in Lebanon pertaining to the construction of the north expressway (Eastern Ring of Tripoli) – Phase I, within the Framework Agreement for the Reconstruction of Lebanon. The IDB prepared the two draft istisna'a and wakala agreements to finance the project. The Council of Ministers approved the financing agreements on 2016/1/14 and mandated the CDR's president to sign on behalf of the Lebanese Government. The agreements were signed during the visit of the IDB's chairman to Lebanon on 2016/03/24.

4. The Greater Beirut Water Project (Bisri Dam)

On 2014/10/19, the Islamic Development Bank (IDB) agreed to finance the Greater Beirut Water Supply Project (Bisri Dam) (US\$128 million). The Council of Ministers approved the financing agreement on 2016/1/14 and mandated the CDR's president to sign on behalf of the Lebanese Government. The agreement was signed during the visit of the IDB's chairman to Lebanon on 2016/03/24.

-3 Completion and Development of Al Ghadir Water Treatment Plant for the Collection and Treatment of Waste Water

On 2014/6/22, the Islamic Development Bank (IDB) agreed to finance the Al Ghadir Waste Water Collection and Treatment Plant Project. The project will



be co-funded by the European Investment Bank and the Islamic Development Bank. The contribution of IDB to this project is US\$ 87.5 million. The IDB prepared the two draft istisna'a and wakala agreements to finance the project. The Council of Ministers approved the financing agreements on 2016/1/14 and mandated the CDR's president to sign on behalf of the Lebanese Government. The agreements were signed during the visit of the IDB's chairman to Lebanon on 2016/03/24.

The Arab Fund for Economic and Social Development (AFESD) On 2015/06/16, an additional KD 32 million (around US\$109\$ million) loan was signed with the Arab Fund for Economic and Social Development (AFESD), to finance the Litani River Project: Four loan agreements awarded by the AFESD were ratified by the parliament, of a total value of KD 131 million (around US\$445\$ million) distributed as follows: Renovation of damaged electrical facilities (loan no. 506); Housing Project (loan no. 585); Completion of wastewater facilities (loan no. 600); Additional loan for the Litani project (loan no. 621). These loans were announced effective except for the Housing loan which requires the signing of a management agreement between the CDR and the Central Bank of Lebanon, and a re-lending agreement between the Central Bank of Lebanon and the Housing Bank.

The CDR has requested the AFESD to develop a program to finance the construction of Zaharani 2 Electricity Plant and submit it to the coordination group of the Arab and Islamic funding sources. The coordination group is awaiting the CDR to launch the

studies pertaining to this project. The Kuwait Fund for Arab Economic Development (KFAED)

A loan agreement to finance the renovation of the production facilities in Zouk and Jiyeh Power Plants was ratified at a parliamentary legislative session end of 2015. This agreement has not gone into effect yet, pending the amendment of the agreement aimed at financing the Zouk Thermal Plant as requested by the Ministry of Energy.

In addition, a KD 5.5 million agreement was ratified on 2015/01/15 to finance the Tripoli Slaughterhouse Project. Two agreements were also signed with the KFAED, one in the form of additional loan for the Litani Project of a value of KD 21 million (around US\$71\$ million) on 2015/06/16, and one to finance the Karak-Ablah-Riyak Road project of value of KD 7 million (around US\$ 24 million) on 2015/03/30. Both agreements were ratified and entered into force.

The CDR signed with the KFAED a US\$ 27 million grant agreement to support the areas affected by the Syrian refugees' displacement in host regions on 2015/01/15. On 2016/01/12 a second grant agreement was signed with KFAED in the same context, of a value of US\$ 30 million.

The Agence Française de Développement (AFD)

On 2015/06/29, the CDR signed a EUR 30 million agreement with the AFD to support the private sector in the field of alternative energy projects.

The AFD finances the preliminary studies of two new projects:

- A loan agreement to finance the wastewater project in Wadi Qadisha of a value ranging

between EUR 25 and 30 million. •A loan agreement to contribute to the financing of the National Reforestation Plan of a value ranging between EUR 15 and 20 million, coupled with a EUR 300.000 grant.

European Union Commission (EUC)  
Financial assistance agreements signed during 2015:

In 2015, four agreements of a total value of EUR 75 million were signed in the context of the Single Support Framework – SSF 2016-2014, distributed as follows:

1.National Stability Support (EUR 15 million):  
ENI/057-025/2014  
ENI/808-037/2014

The agreement was signed on 2015/06/24  
Around EUR 1,9 million of the project budget (%12.9) has been disbursed.

2.Protection and Sustainable Development of Maritime Resources in Lebanon (EUR 19 million)  
ENI/044-025/2014

The agreement was signed on 2015/06/24. The beneficiary is the Ministry of Environment.

3.Upgrading Solid Waste Management Capacities in Lebanon – SWAM II (EUR 21 million)

The agreement was signed on 2015/09/10. The beneficiary is the Ministry of State for Administrative Reform (concerned municipalities).

SWAM II is a completion of the solid waste project in the Lebanese regions (SWAM I).

4.Provision of wastewater treatment services to the poorest and most vulnerable population in Lebanon (EUR 15 million)  
ENI/543-037/2014

The project is intended to increase the levels of wastewater collection and

treatment by enhancing the treatment capacity in the existing wastewater treatment stations, through the installation of wastewater networks linked to these stations in the regions of Koura-Qalamoun in the North of Lebanon and Fourzol and Ablah in the Bekaa.

The agreement was signed on 2015/12/28. The CDR is the implementing body.

Funding Agreements under preparation:

«Technical Assistance for the Government of Lebanon»: A EUR 5.5 million grant agreement to provide technical support to a number of public administrations and the CDR. The agreement is expected to be signed during 2016.

United Nations Development Program in Lebanon (UNDP)

In 2015, the CDR signed a number of project files, funded by grants awarded by the United Nations agencies and other donors and implemented by the UNDP, of a total value of EUR 21 million (partly funded by the Government of Lebanon (US1.2\$ million) and by other donors (US19.8\$ million).

Break down of the UNDP main sectors of intervention:

-Capacity development of the Railway and Public Transportation Authority, funded by the Ministry of Public Works, (US\$ 1.288.932\_.

-Support to economic recovery community security and social cohesion in Lebanese communities affected by the Syrian crisis, funded by a number of donors (US16.568.842\$).

-Preparation of HCFC Phase-out Management Plan (HPMP) for Lebanon for post 2015 targets, funded by the Montreal Protocol (US\$ 150.000.00)

-Support to Host Communities in North Lebanon in the WASH

Sector funded by The Swiss Development Cooperation (US826.901.87\$) and the German Government (US\$ 2.148.717).

-People's Republic of China:

On 2015/09/10, a CNY 20 million grant agreement (around US\$ 8 million) was signed with the People's Republic of China to fund the economic cooperation projects in Lebanon.

Also, a CNY 50 million zero interest loan agreement was signed to provide financial assistance to projects that will be identified at a later stage by the Chinese and the Lebanese governments.



Loans - Ratified Signed and Approved - Distribution matrix by Sector and Funding Source (2015 /12/31 Until 1992 In Millions of USD - Starting)																		
*Sector/Funding Source	World Bank (IDA, IBRD, LSCTF)	AFESD	CHINA	EIB	COMMBANK	FRANCE AFD, French) (Protocols, CRIF	GERMANY	IDBG (ICD, ITFC, IDB)	IRAN	ITALY	JAPAN (JICA/JBIC)	KFAED	SFD	ADFD	USA	IFAD	OFID	Total
Physical Infrastructure																		
Electricity	104.73	425.14		128.72	288.23	59.62	40.31	131.47	19.66	258.04		143.76						1,599.67
(Fixed lines (Telecom	12.70					1.25		7.82				37.30						59.08
(Public & Private Land Trans (Roads	175.88	187.71		170.83		0.00		181.02				168.16	138.48	10.00			35.00	1,067.07
Air Transportation				84.47		21.71						51.23						157.40
Maritime Transportation				107.91	0.35	2.60												110.86
Multisectorial Infrastructures		74.79	12.07	76.46				95.94										259.27
Sub Total	293.31	687.64	12.07	568.39	288.58	85.18	40.31	416.24	19.66	258.04	0.00	400.45	138.48	10.00	0.00	0.00	35.00	3,253.36
Social and Economic Infrastructure																		
Public education	84.01	21.73		6.21		0.46		32.98				75.45	16.08					236.92
Vocational & Tech. Education	59.54	49.42				3.32		30.46									4.00	146.75
Culture & Higher Education		99.78				27.67		202.40		11.17			29.46					370.47
Housing	13.27	138.55												25.00				176.82
Health	33.25			1.00		4.79		122.34					47.13				14.93	223.45
Social & Economic Development	20.00																	20.00
Sub Total	210.07	309.48	0.00	7.22	0.00	36.24	0.00	388.18	0.00	11.17	0.00	75.45	92.67	25.00	0.00	0.00	18.93	1,174.41
Basic Services																		
Solid waste	31.92																	31.92
Water Supply	797.88	63.15		78.37		68.53	6.55	67.71	10.72	12.18	88.18	138.37	34.45	10.00			5.00	1,381.10
Waste Water	10.33	143.00		245.68		161.36	33.02	97.32	5.36	111.68	53.33	44.48		17.50				923.06
Sub Total	840.13	206.15	0.00	324.04	0.00	229.89	39.57	165.03	16.09	123.87	141.51	182.85	34.45	27.50	0.00	0.00	5.00	2,336.08
Productive Sector, Services & Others																		
Agriculture	21.51		5.55			1.67									6.00	22.88	13.40	71.01
Irrigation	56.29	207.58										135.09				4.00		402.95
Industry				39.73	0.89	0.95						18.12						59.69
Tourism	31.50			37.12		15.90												84.52
Private Sector Services	45.00			84.30														129.30
Management and Implementation	105.26	29.65									14.67							149.58
Public information						27.73												27.73
Fuel								25.00										25.00
Administration	126.17	20.86	0.48										6.32					153.83
miscellaneous	26.93	9.88				22.94			13.41									73.16
Sub Total	412.66	267.98	6.04	161.15	0.89	69.19	0.00	25.00	13.41	0.00	14.67	153.21	6.32	0.00	6.00	26.88	13.40	1,176.79
Total	1,756.17	1,471.25	18.11	1,060.80	289.47	420.50	79.88	994.46	49.15	393.08	156.18	811.97	271.92	62.50	6.00	26.88	72.33	7,940.64
Other Funding Sources contributing with less than 10 Millions in Grants are : AGFUND, ARABLEAGUE, ARGENTINA, BELGIUM, GREECE, IRELAND, KOREA, METAP, NETHERLAND, SWEDEN, GEF, OFID, HRC and Private Donors *																		

\*Other Funding Sources contributing with less than 10 Millions in Grants are : AGFUND, ARABLEAGUE, ARGENTINA, BELGIUM, GREECE, IRELAND, KOREA, METAP, NETHERLAND, SWEDEN, GEF, OFID, HRC and Private Donors \*

Grants - Ratified Signed and Approved - Distribution by Sector and Funding Source  
In Millions of USD - Starting 1992 Until 31/12/2015)

*Sector/Funding Source	World Bank ,IDA, IBRD) (LSC)TF	AFESD	CHINA	EIB	EU	FRANCE ,AFD, CRIF) French (Protocols	GER- MANY KFW,) (GIZ	IDBG	ITALY	JAPAN JBIC/)) (JICA	KUWAIT (KFAED,) (KUWAIT	OMAN	QATAR	SAUDI KSA,) (SFD	SPAIN	TUR- KEY	UAE	USA (USA, USAID)	UN/UNDP	*Other	Total
Physical Infrastructure																					
Electricity	7.54	0.33			3.95	7.87					25.27				6.62				0.05		51.63
(Fixed lines (Telecom			6.02		0.87														0.04		6.94
(Public & Private Land Trans (Roads				1.03		0.64			8.37	1.07	40.62			109.71				30.00		1.49	192.95
Air Transportation						0.54					2.31								2.35		5.19
Maritime Transportation					3.28	0.37															3.65
Multisectorial Infrastructures	10.00	30.81	22.94		28.09		4.37	0.25	5.07		16.47			60.00						0.66	178.65
Sub Total	17.54	31.14	28.96	1.03	36.19	9.42	4.37	0.25	13.44	1.07	84.66	0.00	0.00	169.71	6.62	0.00	0.00	30.00	2.44	2.15	439.00
Social and Economic Infrastructure																					
Public education	32.00	0.99			13.16			1.91	1.37	0.52	21.21			29.03					0.96	6.40	107.54
Vocational & Tech. Education			1.21		0.09	0.38	17.32		0.54	0.93	4.00	10.00							0.03		34.49
Culture & Higher Education	0.03	0.60	1.21		3.28	2.66			1.74		0.06	1.79	25.00	6.58					2.43		45.37
Youth & Sports					0.76				0.04		21.98			10.44							33.22
Land use & Environment			0.50		30.76	0.11	10.83		12.23			7.00					50.00	0.13	13.37	1.86	126.78
Housing					1.39						135.00	40.00	211.14	325.00					5.31		717.84
Health	15.80		4.23		1.09	0.96			22.43		53.80			44.13		20.00			1.95	5.38	169.77
Social & Economic Development	10.70	10.37	1.89		84.85		5.46		107.53		11.59				46.35			87.00	4.37	0.61	370.74
Sub Total	58.53	11.96	9.03	0.00	135.40	4.10	33.61	1.91	145.87	1.45	247.64	58.79	236.14	415.17	46.35	20.00	50.00	87.13	28.43	14.26	1,605.76
Basic Services																					
Solid waste					40.71				2.73	0.23	8.03			22.24						0.17	74.11
Water Supply	15.00			7.10	6.43		23.59		12.88	0.96	49.15			16.53				20.00		0.24	151.86
Waste Water				3.36	62.21	0.23	24.12	0.17	0.17	0.75	18.65								0.01		109.65
Sub Total	15.00	0.00	0.00	10.46	109.35	0.23	47.70	0.17	15.78	1.94	75.82	0.00	0.00	38.77	0.00	0.00	0.00	20.00	0.01	0.41	335.63
Productive Sector, Services & Others																					
Agriculture					34.77	3.20	0.07		9.17	0.28	3.16							15.00	19.53		85.18
Irrigation		1.00				0.19			1.31	0.45	0.60								1.85		5.40
Industry					12.04	0.86	0.28												1.08		14.26
Tourism		1.15				0.62			2.95	0.30	41.73								0.37	2.39	49.52
Private Sector Services	15.00				109.88	0.15			0.12										0.38		125.54
Management and Implementation	1.39	4.73			253.53	6.58	7.28	5.03	9.90	1.36	0.99	13.50							13.44	1.41	319.14
Public information		0.17	0.18																		0.35
Fuel						0.27															0.27
Administration	35.68	0.30	3.03		87.59				6.28	0.56	15.73		91.00	35.76			5.00	23.00	0.84		304.77
Miscellaneous					3.09	0.76								10.80							14.66
Sub Total	52.07	7.35	3.21	0.00	500.90	12.64	7.62	5.03	29.74	2.96	62.21	13.50	91.00	46.56	0.00	0.00	5.00	38.00	37.50	3.80	919.09
Total	143.14	50.45	41.20	11.49	781.84	26.40	93.30	7.35	204.83	7.41	470.33	72.29	327.14	670.21	52.98	20.00	55.00	175.13	68.38	20.62	3,299.48

. Other Funding Sources contributing with less than 10 Millions in Grants are : AGFUND, ARABLEAGUE, ARGENTINA, BELGIUM, GREECE, IRELAND, KOREA, METAP, NETHERLAND, SWEDEN, GEF, OFID, HRC and Private Donors \*

Loans and Grants - Ratified Signed and Approved - Distribution by Sector and Funding Source  
(In Millions of USD - Starting 1992 Until 31/12/2015)

*Sector/Funding Source	World Bnak IDA.) (IBRD)	AFESD	CHINA	EIB	EU	COM-MER-CIAL BANKS	FRANCE AFD.) French Pro-col, (CRIF	GER-MANY KFW.) (GIZ	IDBG ID.) IDA.) (IFC	IRAN	ITALY	JAPAN JICA) (JBC	KUWAIT KFAED.) KU- (WAIT	OMAN	QATAR	SAUDI KSA.) (SFD	SPAIN	TUR-KEY	ADFD	UAE	USA USAID.) (USA	UN/ UNDP/ IFAD	OFID	*Others	Total
Physical Infrastructure																									
Electricity	112.27	425.47		128.72	3.95	288.23	67.49	40.31	131.47	19.66	258.04		169.03				6.62					0.05			1,651.30
(Fixed lines (Telecom	12.70		6.02		0.87		1.25		7.82				37.30									0.04			66.02
Public & Private Land Trans (Roads	175.88	187.71		171.86			0.64		181.02		8.37	1.07	208.78			248.19			10.00		30.00		35.00	1.49	1,260.02
Air Transportation				84.47			22.25						53.54									2.35			162.60
Maritime Transportation				107.91	3.28	0.35	2.96																		114.51
Multisectorial Infrastructures	10.00	105.61	35.01	76.46	28.09			4.37	96.19		5.07		16.47			60.00								0.66	437.92
Sub Total	310.85	718.78	41.04	569.43	36.19	288.58	94.59	44.68	416.49	19.66	271.48	1.07	485.11	0.00	0.00	308.19	6.62	0.00	10.00	0.00	30.00	2.44	35.00	2.15	3,692.36
Social and Economic Infrastructure																									
Public education	116.01	22.72			19.37		0.46		34.88		1.37	0.52	96.66			45.11						0.96		6.40	344.46
Vocational & Tech. Educa-tion	59.54	49.42	1.21		0.09		3.70	17.32	30.46		0.54	0.93	4.00	10.00								0.03	4.00		181.23
Culture & Higher Education	0.03	100.37	1.21		3.28		30.33		202.40		12.91		0.06	1.79	25.00	36.04						2.43			415.84
Youth & Sports					0.76						0.04		21.98			10.44									33.22
Land use & Environment	26.93		0.50		30.76		23.04	10.82			12.23			7.00						50.00	0.13	13.37		1.86	176.65
Housing	13.27	138.55			1.39								135.00	40.00	211.14	325.00			25.00			5.31			894.67
Health	49.05		4.23		2.10		5.75		122.34		22.43		53.80			91.26		20.00				1.95	15.12	5.19	393.22
Social & Economic Devel-opment	30.70	10.37	1.89		84.85			5.46			107.53		11.59				46.35				87.00	4.37		0.61	390.74
Sub Total	295.54	321.43	9.03	0.00	142.61	0.00	63.28	33.60	390.08	0.00	157.04	1.45	323.09	58.79	236.14	507.84	46.35	20.00	25.00	50.00	87.13	28.43	19.12	14.07	2,830.03
Basic Services																									
Solid waste	31.92				40.71						2.73	0.23	8.03			22.24								0.17	106.03
Water Supply	812.88	63.15		85.47	6.43		68.53	30.14	67.71	10.72	25.06	89.13	187.52			50.97		10.00			20.00		5.00	0.24	1,532.96
Waste Water	10.33	143.00		249.03	62.21		161.60	57.13	97.49	5.36	111.85	54.08	63.13						17.50			0.01			1,032.72
Sub Total	855.13	206.15	0.00	334.50	109.35	0.00	230.12	87.27	165.20	16.09	139.64	143.45	258.67	0.00	0.00	73.21	0.00	0.00	27.50	0.00	20.00	0.01	5.00	0.41	2,671.71
Productive Sector, Services & Others																									
Agriculture	21.51		5.55		34.77		4.87	0.07			9.17	0.28	3.16								21.00	42.41	13.40		156.19
Irrigation	56.29	208.58					0.19				1.31	0.45	135.69									5.85			408.36
Industry				39.73	12.04	0.89	1.81	0.28					18.12									1.08			73.95
Tourism	31.50	1.15		37.12			16.52				2.95	0.30	41.73									0.37	2.39		134.05
Private Sector Services	60.00			84.30	109.88		0.15				0.12										0.38				254.84
Management and Imple-mentation	106.64	34.38			253.53		6.58	7.28	5.03		9.90	16.03	0.99	13.50							13.44		1.41		468.72
Public information		0.17	0.18				27.73																		28.09
Fuel							0.27		25.00																25.27
Administration	161.85	21.16	3.51		87.59						6.28	0.56	15.73		91.00	42.08				5.00	23.00	0.84			458.61
Miscellaneous		9.88			3.09		0.76			13.41						10.80									37.95
Sub Total	437.79	275.33	9.25	161.15	500.90	0.89	58.89	7.62	30.03	13.41	29.74	17.62	215.42	13.50	91.00	52.88	0.00	0.00	0.00	5.00	44.00	64.38	13.40	3.80	2,046.01
Total	1,899.31	1,521.70	59.31	1,065.08	789.05	289.47	446.89	173.17	1,001.81	49.15	597.91	163.59	1,282.30	72.29	327.14	942.13	52.98	20.00	62.50	55.00	181.13	95.26	72.52	20.43	11,240.12

.Other Funding Sources contributing with less than 10 Millions in Grants are : AGFUND, ARABLEAGUE, ARGENTINA, BELGIUM, GREECE, IRELAND, KOREA, METAP, NETHERLAND, SWEDEN, GEF, OFID, HRC and Private Donors \*



FUND	Acronym
Abu-Dhabi Fund for Development	ADFD
Agence Française de Développement	AFD
Arab Fund for Economic & Social Development	AFESD
The Arab Gulf Program for United Nations Development Organizations	AGFUND
League of Arab States	ARAB LEAGUE
Argentina	ARGENTINA
Le Gouvernement Du Royaume de Belgique	BELGIUM
People's Republic of China	CHINA
Various Commercial Banks	Comm. Banks
Conseil Regional d'Ile de France	CRIF
European Investment Bank	EIB
European Union	EU
Republic of France, (AFD), French Protocols, CRIF	FRANCE
Global Environment Fund	GEF
Republic of Germany	GERMANY
Deutsche Gesellschaft für Technische Zusammenarbeit	GTZ
High Relief Commission (Lebanon)	HRC
International Bank for Reconstruction & Development (The World Bank)	IBRD
Islamic Corporation for the Development of the Private Sector (IDBG member)	ICD
Islamic Development Bank (IDBG member)	IDB
Islamic Development Bank Group	IDBG
International Fund for Agricultural Development	IFAD
Islamic Republic of Iran	IRAN
The Republic of Ireland	IRELAND
Republic of Italy	ITALY
International Islamic Trade Finance Corporation (IDBG member)	ITFC
Japan	JAPAN
Japan International Cooperation Agency (previously known as JBIC)	JICA
Kuwait Fund for Arab Economic Development	KFAED
Kreditanstalt für Wiederaufbau	KFW
State of Kuwait	KUWAIT
Mediterranean Environmental technical Assistance Program	METAP
The Netherlands	NETHERLANDS
OPEC Fund for International Development	OFID
Sultanate of Oman	OMAN
State of Qatar	QATAR
Kingdom of Saudi Arabia	SAUDI
Saudi Fund for Development	SFD
Kingdom of Spain	SPAIN
Swedish International Development Cooperation Agency (ASDI)	SWEDEN
Republic of Turkey	TURKEY
The United Arab Emirates	UAE
United Nations Secretariat (including country pledges) + Agencies	UN/UNDP
United States of America	USA
US Agency for International Development	USAID
Hellenic Republic of Greece	GREECE

