







THE COUNCIL FOR DEVELOPMENT AND RECONSTRUCTION (CDR)

ENVIRONMENTAL AND SOCIAL SAFEGUARD STUDIES FOR LAKE QARAOUN POLLUTION PREVENTION PROJECT

**LAND ACQUISITION PLAN (LAP)** 

March 11, 2015

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#### Disclaimer

This report has been prepared by ELARD, with all reasonable skill, care and diligence within the terms of the contract with the CDR, incorporating our General Terms and Conditions of Business and taking account of the resources devoted to it by agreement with the CDR. The information contained in this report is, to the best of our knowledge, correct at the time of printing. The interpretations and recommendations are based on our experience, using reasonable professional skill and judgment, and based upon the information that was available to us. CDR is the authority to have the ownership of the document.

#### **ELARD Lebanon**

Amaret Chalhoub - Zalka Highway Fallas Building (Playroom) - 3rd Floor

T:+961 1 896 793 T:+961 1871 361 M: +961 3 910 032



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# LIST OF ACRONYMS

ELARD Earth Link and Advanced Resources Development CDR Council for Development and Reconstruction

CoM Council of Ministers

EC Expropriation Commission
LAP Land Acquisition Plan
PAP Project Affected People
WWTP Wastewater Treatment Plant

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BACKGROUND

#### 1. BACKGROUND

#### 1.1 GENERAL OVERVIEW

Earth Link and Advanced Resources Development s.a.l. (ELARD) has prepared a Land Acquisition Plan (LAP) for component 1 – package 1 of the Lake Qaraoun Pollution Prevention Project that aims at expanding the sewage collection network in Zahle to connect to Zahle Wastewater Treatment Plant (WWTP).

The LAP aims at identifying the significance of the impacts resulting from the Project, consulting with the project affected persons, and assessing the impact of the project on their lands and economic life.

#### 1.2 PROJECT LOCATION

Zahle WWTP is located 4 km south of Zahle Township, on the right bank of the Litani River. The plant is situated on flat area with an approximate elevation of 875 m above sea level. The plant is proposed to serve the city of Zahle and neighboring villages up to the village of Qaa El Rim. The plant is currently under construction with funding from the Italian Protocol. The plant was expected to become operational in October 2015 and is designed to serve about 214,000 persons equivalent in 2015 and 300,000 in 2030. The estimated daily average flow for 2015 is 38,000 m³ and 56,000 m³ 2030. The existing network that will connect to the plant is about 300 km. The project intends to finance the construction of 109 km of new sewerage network, the rehabilitation of part of the old network, and 6,000 house connections. The area that will be covered is Greater Zahlé (including Karak and Ksara), Saadnayel; Quaa El Rim; Taalabaya, Ferzol, and Hezzerta.

The expropriation for the network installation will include plots in Zahle and Hezzerta; the expropriated land will be of 3m width and a total length of approximately 2074 m. The pipe diameter in the expropriated plots is 20 cm. accordingly, permanent expropriation will take place for a total area of 6221.84 m² (5114 m² in Hazzerta and 1108 m² in Zahle). The general location of the expropriated plots in Zahle and Hazzerta are shown in (Figure 1-1) and (Figure 1-2) respectively.



Figure 1-1 General Location of the Expropriation for Pipelines in Zahle



Figure 1-2 General Location of the Expropriation for Pipelines in Hezzerta

BACKGROUND

The total plots area that will be affected by expropriated in addition to the expropriation area per plot in Zahle are presented in Table 1-1.

Table 1-1 Expropriation Summary in Zahle

Plot	Plot Area (m²)	Expropriation Area (m²)
1152	7,676	139.53
1153	1,081	10.08
1154	2,912	57.92
1157	5,063	81.85
1158	1,798	64.80
1160	3,563	91.97
1164	4,478	79.34
1165	4,172	184
1166	3,622	16.00
489	571,297	2184.83
490	49,517	1316.14
507	274,400	887.38
Total	929,579	5113.84

The plots and pipeline detailed maps for the planned expropriation in Zahle are shown in Figure 1-3 and Figure 1-4.



Figure 1-3 Section 1 Expropriation in Zahle

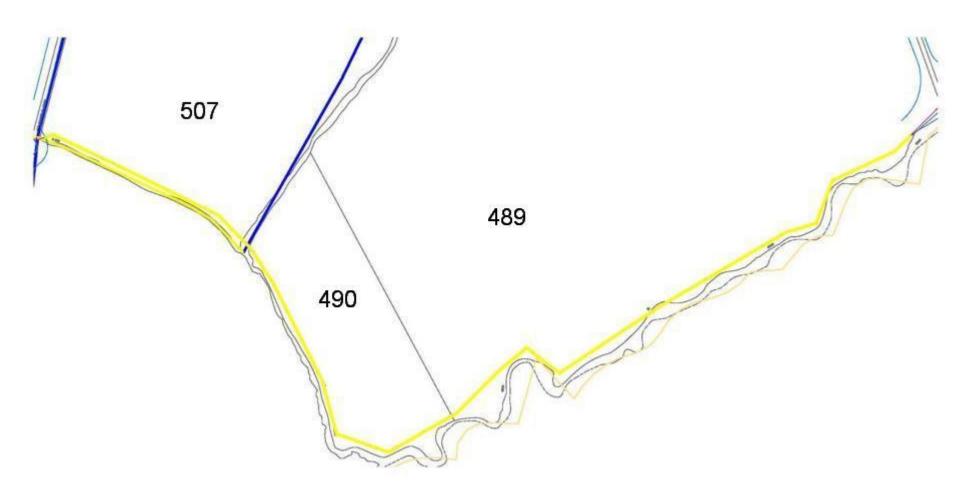


Figure 1-4 Section 2 Expropriation in Zahle

BACKGROUND

The total plots area that will be affected by expropriated in addition to the expropriation area per plot in Hazzerta are presented in Table 1-2.

Table 1-2 Expropriation Summary in Hazzerta

Plot	Plot Area (m²)	Expropriation Area (m²)
987	3,238	90
1076	4945	214
1161	1,316	96
905	6,200	80
345	1,753,314	251
1066	805	50
1065	816	70
932	17,889	62
1099	896	95
1232	1,385	100
Total	1,790,804	1,108

The plots and pipelines detailed maps for the planned expropriation in Hazzerta are shown in Figure 1-5, Figure 1-6, Figure 1-7, Figure 1-8, Figure 1-9, and Figure 1-10.

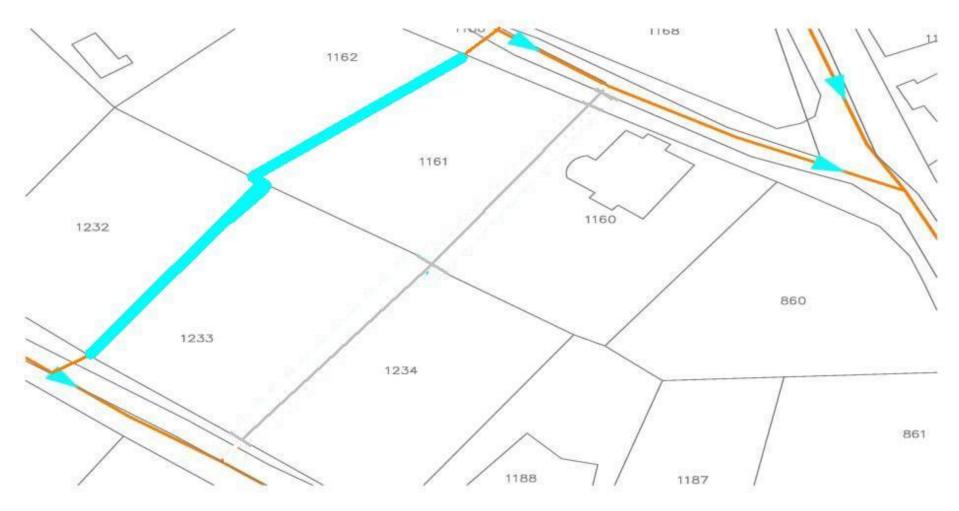


Figure 1-5 Section 1 Expropriation in Hazzerta

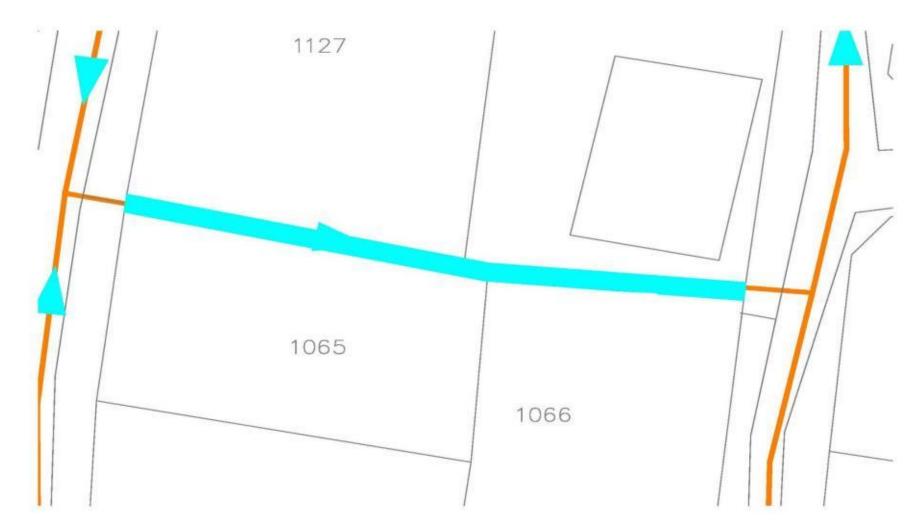


Figure 1-6 Section 2 Expropriation in Hazzerta



Figure 1-7 Section 3 Expropriation in Hazzerta

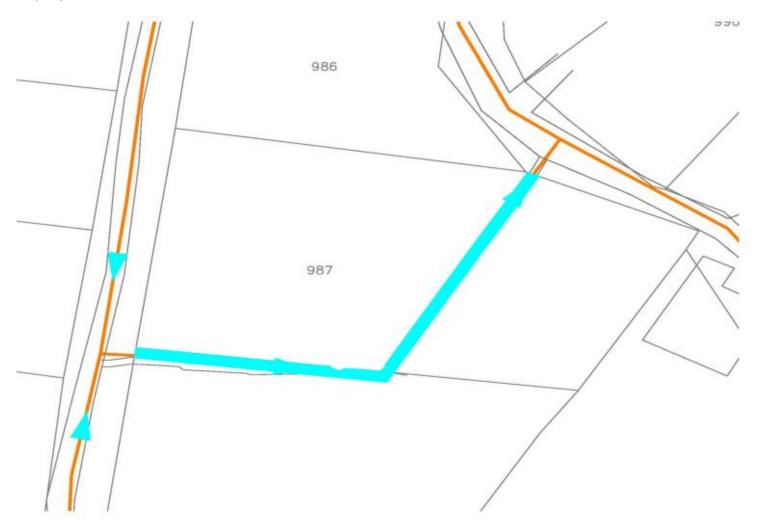


Figure 1-8 Section 4 Expropriation in Hazzerta



Figure 1-9 Section 5 Expropriation in Hazzerta

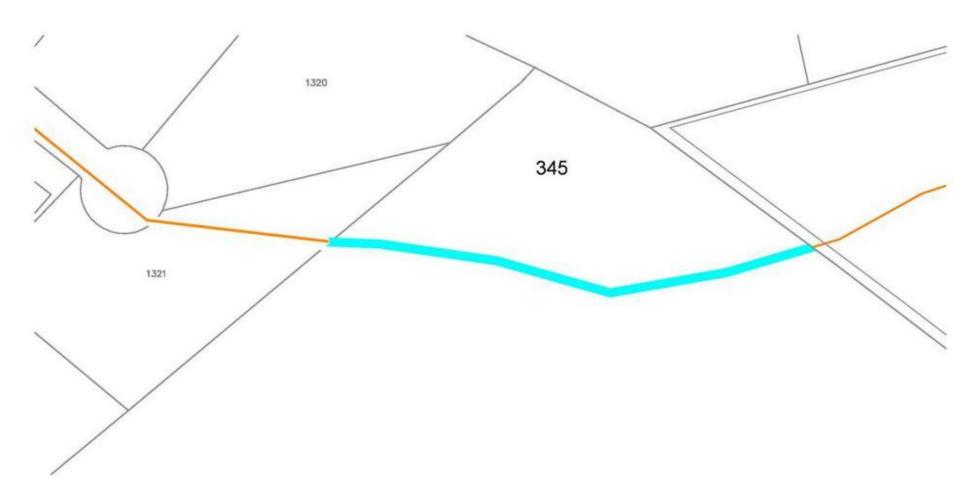


Figure 1-10 Section 6 Expropriation in Hazzerta

#### 2. SIGNIFICANCE OF LAND ACQUISITION IMPACTS

In order to assess the significance of land acquisition impacts on the lands and their owners, several visits to the project area were conducted by the LAP Consultant (ELARD) and land owners were interviewed in Zahle and Hazzerta with the help of the municipalities' representatives and in coordination with the Design Consultant (Rafic El Khoury & Partners). Accordingly, ELARD's team inspected each plot, contacted and met the available owners, discussed the economic value of the lands, took photos of the sites, and specified the type of land use of each plot.

The survey revealed that the project will not result in involuntary physical relocation of people nor will it cause demolition of any existing buildings or structures. The land use in the project area is majorly for agricultural activities which includes open fields that are cropped, planted with trees or not cultivated. Expropriation will mainly lead to the removal of wheat (if construction was before cultivation season) in addition to some trees that include Cherry, Almond, and Walnut trees.

Table 2-1 below shows the total number of affected plots and their total area, the total number of landowners, and the total area required for expropriation in each of Zahle and Hezzerta.

Number of affected Number of Total areas of Total area of Village plots owners affected plots (m<sup>2</sup>) expropriation (m<sup>2</sup>) Zahle 12 25 358,282 5,113.82 Hezzerta 10 12 1,790,804 1,108

Table 2-1 Overall Lands Description

Table 2-2 and Table 2-3 below present the findings of the site visits, the breakdown of the areas of the lands, the area of expropriation and the number of trees that will be removed.

SIGNIFICANCE OF LAND ACQUISITION IMPACTS

Table 2-2 Plots of Expropriation in Zahle

Owner	Plot	Image for the Plot	Land Use	Plot Area (m²)	Expropriation Area (m²)	Removed trees
<ul> <li>Marie Daher Wakim Hojeij</li> <li>Georgette Daher Wakim Hojeij</li> <li>Ivette Daher Wakim Hojeij</li> </ul>	1152		Not Cultivated	7,676	139.53	0
Ali Chehade Chouman	1153		Not Cultivated	1,081	10.08	0

SIGNIFICANCE OF LAND ACQUISITION IMPACTS

Owner	Plot	Image for the Plot	Land Use	Plot Area (m²)	Expropriation Area (m²)	Removed trees
<ul> <li>Antoun Youssef Harrouk</li> <li>Zakiyya Ghattas Bou Mzahem</li> </ul>	1154		Almond trees	2,912	57.92	6
• Khayr Semaan El Najjar	1157		Not Cultivated	5,063	81.85	0

SIGNIFICANCE OF LAND ACQUISITION IMPACTS

Owner	Plot	Image for the Plot	Land Use	Plot Area (m²)	Expropriation Area (m²)	Removed trees
<ul> <li>Chafika     Kassem Al Ayt</li> <li>Mohammad     Nayef Haidar     Ahmad</li> </ul>	1158		Not Cultivated	1,798	64.80	0
• Hanna Georges Lteif	1160		Not Cultivated	3,563	91.97	0

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SIGNIFICANCE OF LAND ACQUISITION IMPACTS

Owner	Plot	Image for the Plot	Land Use	Plot Area (m²)	Expropriation Area (m²)	Removed trees
• Ghassan Nadra Zlaket	1164		Not Cultivated	4,478	79.34	0
<ul> <li>Gaby Antoine Nmeir</li> <li>Khalil Antoine Nmeir</li> <li>Andre Antoine Nmeir</li> <li>Robert Antoine Nmeir</li> <li>Pierre Antoine Nmeir</li> </ul>	1165		Not Cultivated	4,172	184	0

SIGNIFICANCE OF LAND ACQUISITION IMPACTS

Owner	Plot	Image for the Plot	Land Use	Plot Area (m²)	Expropriation Area (m²)	Removed trees
<ul> <li>Abdallah Yared Abdallah Freiji</li> <li>Antoine Youssef Freiji</li> <li>Elias Youssef Freiji</li> <li>Pierre Youssef Freiji</li> <li>Jean Fahed Freiji</li> <li>Nkoula Fahed Freiji</li> </ul>	1166		Walnut trees	3,622	16.00	3
• Elias Joseph Skaf	489		Not Cultivated	571,297	2184.83	0

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SIGNIFICANCE OF LAND ACQUISITION IMPACTS

Owner	Plot	Image for the Plot	Land Use	Plot Area (m²)	Expropriation Area (m²)	Removed trees
<ul> <li>Chantal Suzanne Charlotte Bicarré</li> </ul>	490		Wheat Cultivated	49,517	1316.14	0
• Elias Joseph Elias Skaf	507		Wheat Cultivated	274,400	887.38	0

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SIGNIFICANCE OF LAND ACQUISITION IMPACTS

Table 2-3 Plots of Expropriation in Hezzerta

Owner	Plot	Image of the plot	Land Use	Plot Area (m²)	Expropriation Area (m²)	Removed Trees
Ali Mohammad     Ahmad	987		Cherry Trees	3,238	90	6
Abbas Abed Alkareem Ahmad	1076		Not Cultivated	4945	214	0

SIGNIFICANCE OF LAND ACQUISITION IMPACTS

Owner	Plot	Image of the plot	Land Use	Plot Area (m²)	Expropriation Area (m²)	Removed Trees
Jawad Mohammad Ahmad Moussa	1161		Cherry Trees	1,316	96	6
<ul> <li>Hassan Fares Ahmad</li> <li>Ali Fares Ahmad</li> </ul>	905		Cherry Trees	6,200	80	9

SIGNIFICANCE OF LAND ACQUISITION IMPACTS

Owner	Plot	Image of the plot	Land Use	Plot Area (m²)	Expropriation Area (m²)	Removed Trees
<ul> <li>George Nicolas Khoury</li> <li>Rita Nicolas Khoury</li> </ul>	345		Not Cultivated	1,753,314	251	0
Rima Hassan Ahmad	1066		Cherry Trees	805	50	5

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SIGNIFICANCE OF LAND ACQUISITION IMPACTS

Owner	Plot	Image of the plot	Land Use	Plot Area (m²)	Expropriation Area (m²)	Removed Trees
Houssein Ali Ahmad	1065		Cherry Trees	816	70	15
Kassem Fares     Ahmad	932		Cherry Trees	17,889	62	5

SIGNIFICANCE OF LAND ACQUISITION IMPACTS

Owner	Plot	Image of the plot	Land Use	Plot Area (m²)	Expropriation Area (m²)	Removed Trees
• Fadel Abbas Mousa	1099		Cherry Trees	896	95	2
• Ali Silmi Ali	1232		Cherry Trees	1,385	100	4

COMPENSATION STANDARDS

#### 3. COMPENSATION STANDARDS

On an individual basis and under the Lebanese expropriation Law, compensation is paid in cash, provided it is adequate, and paid in time and in full. Therefore compensation will be calculated based on replacement cost. According to the Lebanese law, the compensation should take into account in addition to the value of the land, any factor that might affect the value of the loss. Therefore, below are the methods and principles of determining the compensation standards:

<u>Agricultural Land:</u> The land is valued at current local market rates, and every factor that affects its value is taken into consideration: size, shape, location (even whether it is on the left or the right hand side of the street); In addition to any relevant item whose value can be determined such as the value of the crops or trees that will be removed taking into account their species and age.

<u>Field Crops:</u> The value of crops in the field will be assessed based on the average price for such produce over the past three years adjusted for inflation. The yield estimate for each crop will be derived from Ministry of Agriculture statistics for the agro-climatic zone and land classification. Wherever possible the construction programme will accommodate cropping seasons and productive lands acquired only after harvesting. Vegetables, ground crops and shrubs will be compensated by area, taking into account the above valuing methodology.

<u>Perennial Crops:</u> For perennial crops such as citrus, olive and other productive trees, compensation will be equivalent to the rate of net annual income for the plot, capitalized over a 20-year period. As such, the resulting value will be given by type of tree or crop.

**Non-productive trees:** The valuation will be based on the market value of the wood, taking into account the species and the size of the tree.

#### 4. CONSULTATIONS WITH PROJECT AFFECTED PEOPLE

As stated in Section 2, several site visits were conducted to the study area in Zahle and Hazzerta in coordination with the municipalities who helped facilitate the communication process with the land owners. The team met with the owners of 6 plots in Zahle and 9 of the land owners in Hazzerta as presented in Table 4-1; the owners of the remaining plots that will be expropriated were absent and couldn't be reached at the time of the survey. The team explained to the owners the project and the need for expropriating part of their lands, discussed the available options, and informed them about the estimated prices per square meter. The owners or their representatives welcomed the project considering it a necessary step for the benefit of public health and agreed on the expropriation process. It is necessary to point out the following:

- We couldn't directly contact the land owners of plot No. 345, but we contacted their Lawyer Mr. Tony Haddad; and
- Mr. Houssein Ali Ahmad the landowner of plot 1065 in Hazzerta informed us that he prefers to sign a form that will allow the CDR to use the land for constructing the sewer pipeline without expropriating it or requiring any compensation except for the cherry trees inside the plot, because if official expropriation took place, the area of his plot will be reduced to less than the area required to get a license for building. Mr. Houssein signed a pledge (Appendix A) by which he allowed the municipality of Hazzerta to use a part of his land to install a section of the sewer pipeline. In the pledge Mr. Houssein ensured that he will not conduct any construction activities in the area dedicated to the wastewater network inside his plot, especially above the pipeline. In addition to that he allowed the operator to use the dedicated land to maintain the network.
- The owner of plot 1234 in Hazzerta refused to let the network pass across his land, as a
  result, the LAP Consultant contacted the Design Consultant and the network was rerouted to plot 1232 after getting the approval of the owner and with the help of
  Hazzerta Municipality.

Table 4-1 Expropriation Consultation Visits

Owner/Representative	Plot Number	Date of Consultation
Zahle		
Hanna Georges Lteif	1160	Feb 13, 2015
Ghassan Nadra Zlaket	1164	Feb 13, 2015
Khalil Antoine Nmeir	1165	Feb 18, 2015
Nadim Hajjar (owner representative)	489	Feb 16, 2015
Nadim Hajjar (owner representative)	490	Feb 17, 2015
Nadim Hajjar (owner representative)	507	Feb 18, 2015
Hazzerta		
Ali Mohammad Ahmad	987	Feb 4, 2015
Jawad Mohammad Ahmad Moussa	1161	Feb 5, 2015
Ali Fares Ahmad	905	Feb 6, 2015

CONSULTATION WITH AFFECTED PEOPLE

Owner/Representative	Plot Number	Date of Consultation
Lawyer Tony Haddad (owner representative)	345	Feb 9, 2015
Rima Hassan Ahmad	1066	Feb 9, 2015
Houssein Ali Ahmad	1065	Feb 9, 2015
Kassem Fares Ahmad	932	Feb 10, 2015
Fadel Abbas Mousa	1099	Feb 10, 2015
Ali Silmi Ali	1232	Feb 10, 2015

INSTITUTIONAL ARRANGEMENTS

## 5. INSTITUTIONAL ARRANGEMENTS

<u>The CDR Expropriation Unit:</u> The Unit staff members work closely with the CDR Projects Department Engineers and the Legal Department from the initiation of the decree process until payment of settlements. The unit shall:

- Start working on the expropriation decrees along with consultants commissioned to prepare the expropriation plans and files.
- Send the decrees to the board of CDR for official approval
- Send the decree to the CoM for approval and issue.
- Continue to verify the expropriation files after approval.
- Forward the Decree along with the expropriation files to the Expropriation Commission.
- Provide advice and information to the owners of properties affected by the Decree so
  that they may present themselves before the commission and provide proof of their
  legal rights (as owner, tenant, etc.).

Compensation is determined by judicial process. When the Expropriating Authority, in this case the CDR, wishes to implement a decree, the dossier is sent to the Expropriation Commission for adjudication of compensation.

The CDR will follow the Expropriation procedures as per the Lebanese law as presented in Figure 5-1. For more details on the compensation process and its several steps please refer to the RPF report

INSTITUTIONAL ARRANGEMENTS

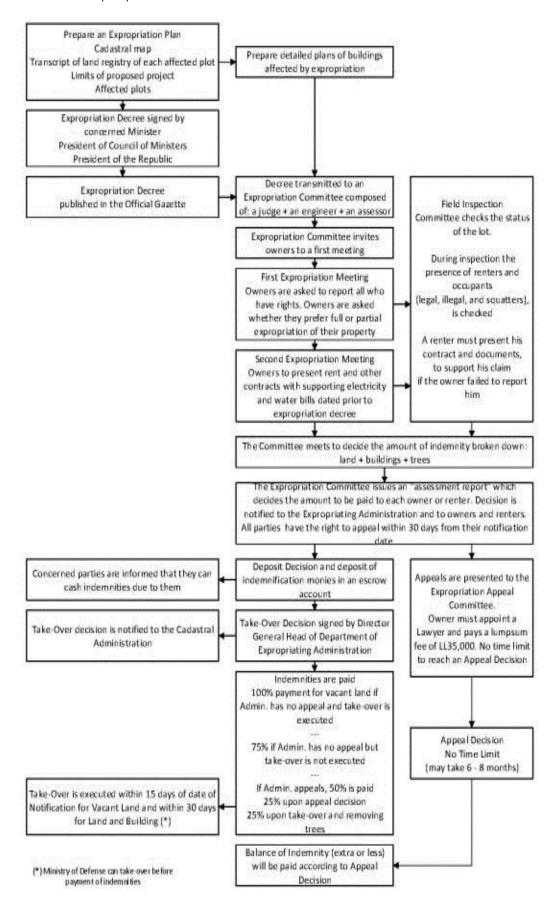


Figure 5-1 Expropriation Procedures

SCHEDULE

## 6. SCHEDULE

The schedule covering all acquisition activities from surveys, to consultation with affected landowners, preparation of expropriation decree, the completion of the procedures of expropriation at court and with relevant authorities including compensation to landowners, and the commissioning of construction activities is presented given in Table 6-1.

Table 6-1 Expropriation Schedule

Task	Responsibility	Date
Land surveys	CDR	Between February and March 2015
Consultation with affected landowners	LAP Consultant	February 2015
Expropriation decree	Council of Ministers	Anticipated between November 2015 and January 2016
Expropriation and compensation procedures	Expropriation Committee	After completion of EC valuation procedures (Anticipated between September and November 2016)
Construction of networks	CDR and Contractor	It's estimated that the construction starts after 18 months from the date of loan agreement signature between CDR and the World Bank. During this period the main activities will be tenders preparation for contractors, approval of the loan by CoM, ratification by the parliament, expropriation finalization.

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TOTAL COST OF LAND ACQUISITION

## 7. TOTAL COST OF LAND ACQUISITION

The compensation rates set below were determined based on the existing prevailing market prices of affected assets and according to the prices of trees used in the resettlement action plan for "Greater Beirut Water Supply Augmentation Project Environmental and Social Impact Assessment" (CDR, 2014), indicative compensation values were calculated and include the costs for acquiring the lands and compensation for all lost assets.

However, in accordance with Lebanese expropriation procedures, the actual compensation rate will be determined by the Expropriation Commission upon the receipt of the approval on Expropriation Decree and based on the market price at the time of actual expropriation. Meanwhile, indicative compensation rates are just for guidance and will not commit the CDR or the PAPs, as the final rates will be established based on the assessment and valuation of the Expropriation Commission. Table 7-1 and

TOTAL COST OF LAND ACQUISITION

Table 7-2 below show the compensation values in Zahle and Hazzerta respectively.

Table 7-1 Compensation Values in Zahle

Plot	Land Use	Expropriation Area (m²)	Price/m <sup>2</sup>	Compensation price (USD)
1152	Not Cultivated	139.53	150	20,929.5
1153	Not Cultivated	10.08	150	1,512
1154	Almond trees	57.92	150	8,688
1157	Not Cultivated	81.85	150	12,277.5
1158	Not Cultivated	64.80	150	9,720
1160	Not Cultivated	91.97	150	13,795.5
1164	Not Cultivated	79.34	150	11,901
1165	Not Cultivated	184	150	27,600
1166	Walnut trees	16.00	150	2,400
489	Not Cultivated	2184.83	80	174,786.4
490	Wheat Cultivated	1316.14	80	10,5291.2
507	Wheat Cultivated	887.38	80	70990.4
	Total	5,113.84		459,891.50

TOTAL COST OF LAND ACQUISITION

Table 7-2 Compensation Values in Hazzerta

Plot	Land Use	Expropriation Area (m²)	Price/m²	Compensation price (USD)
987	Cherry Trees	90	100	9,000
1076	Not Cultivated	214	100	21,400
1161	Cherry Trees	96	100	9,600
905	Cherry Trees	80	100	8,000
345	Not Cultivated	251	100	25,100
1066	Cherry Trees	50	100	5,000
932	Cherry Trees	62	100	6,200
1099	Cherry Trees	95	100	9,500
1232	Cherry Trees	100	100	10,000
	Total	1,038		103,800

There is a total of 61 mature trees that will be removed by expropriation; 6 Almond Trees, 3 Walnut Trees and 52 Cherry Trees. Details of compensation are presented in Table 7-3 below.

Table 7-3 Compensation Values for Trees

Plot	Land Use	Number of Trees	Price of Mature Tree	Compensation Value (USD)
Zahle				
1154	Almond trees	6	267	1,602
1166	Walnut trees	3	267	801
Hezzerta				
987	Cherry Trees	6	267	1,602
1161	Cherry Trees	6	267	1,602
905	Cherry Trees	9	267	2,403
1066	Cherry Trees	5	267	1,335
1065	Cherry Trees	15	267	4,005
932	Cherry Trees	5	267	1,335
1099	Cherry Trees	2	267	534
1232	Cherry Trees	4	267	1,068
1	[otal	61		16,287

In addition to the above, two plots in Zahle plot No. 490 and 507 are cultivated with wheat nevertheless, according to CDR, and the Lebanese Law, field crops are compensated for only during cropping season and as such, construction works should start when field crops season

TOTAL COST OF LAND ACQUISITION

is completely over. The estimated compensation value for wheat crops is presented in Table 7-4.

Table 7-4 Compensation Values for Wheat

Plot	Expropriation Area	Price (USD/m²)	Compensation Value*
490	1316.14	40 cents including	1579.4
507	887.38	inflation values	1064.9
Total	2203.52		2644.3

<sup>(\*)</sup> Compensation value is calculated over 3 years

Therefore, the total indicative Cost of Expropriation is around 582,622.8 USD as presented in Table 7-5 below.

Table 7-5 Total Compensation Values

Asset	Expropriation Area (m²)	Total Compensation price (USD)
Land	6151.84	563,691.5
Trees	61	16,287
Crops	2203.52	2644.3
Total		582,622.8

References

# 8. REFERENCES

Greater Beirut Water Supply Augmentation Project Environmental and Social Impact Assessment, Resettlement Action Plan. CDR. 2014

Law No. 58. (1991). Lebanese Expropriation Law dated 29/05/1991, amended on 8/12/2006.

APPENDIX A

## APPENDIX A SIGNED PLEDGE



Appendix A

