



## Documents & Reports

[Home](#) > [Documents & Reports](#) > [Report Details](#)

### Lebanon - Ba ' albeck Water and Wastewater Project

Document Type: Project Information Document

**Document Date:** 2002/01/17  
**Author or Sender:** n/a  
**Document Type:** Project Information Document  
**Report No:** PID10700  
**Collection Title:** n/a  
**Volume Title:** n/a  
**Volume No:** 1  
**Country, Region or Area:** Lebanon  
**Region:** Middle East and North Africa  
**Sector:** Water Supply & Sanitation  
**Sub-Sector:** Other Water Supply & Sanitation  
**Project Name/ID:** LB-Beka ' A Region Water And Wastewater -- P074042  
**Credit No:** n/a  
**Loan No:** n/a  
**Trust Fund No/Name:** n/a  
**Date Stored:** 2002/01/25

### Document Download

Use the free Adobe Acrobat Reader to view pdf files.



PDF 8 pages - 0.56 MB (approx.)



Text

[How to Order?](#)

► [See documents related to this project](#)

[Documents Home](#) | [Advanced Search](#) | [Browse](#) | [Help](#)



[Contact Us](#) | [Help/FAQ](#) | [Index](#) | [Search](#) | [Home](#)

© 2001 The World Bank Group, All Rights Reserved. [Terms and Conditions](#). [Privacy Policy](#)

Republic of Lebanon

Office of the Minister of State for Administrative Reform

Center for Public Sector Projects and Studies

(C.P.S.P.S.)

الجمهورية اللبنانية  
 مكتب وزير الدولة لشؤون التنمية الإدارية  
 مركز مشاريع ودراسات القطاع العام

Report No. PID10700  
 Project Name LEBANON-BEKA'A REGION WATER AND WASTEWATER  
 Region Middle East and North Africa Region  
 Sector Other Water Supply & Sanitation  
 Project ID LPPE74042  
 Borrower(s) GOVERNMENT OF LEBANON  
 Implementing Agency  
 Address WATER AUTHORITY/CDR/MINISTRY OF  
 WATER AND POWER  
 Address:

Contact Person: Mr. Mahmoud Osman  
 Tel: 961-1-9811361  
 Fax: 961-1-981252  
 Environment Category B  
 Date PID Prepared October 2, 2001  
 Projected Appraisal Date November 26, 2001  
 Projected Board Date May 2, 2002

#### 1. Country and Sector Background

The main sector issues are: (a) - Technical: Despite the availability of water resources in Lebanon, the water supply and wastewater sector is unable to provide satisfactory services to the majority of the population. Almost half of all water produced is un-accounted for because of losses and billing deficiencies, while leaking or overflowing wastewater collection systems cause severe sanitary conditions and contaminate surface and ground-water resources. The service deficiencies are caused both from neglect of infrastructure operation and maintenance and from more fundamental structural problems in the sector. (b) - Institutional: The division of institutional responsibilities between water supply and wastewater adversely affects operational efficiency and prevents joint planning, prioritization of investments and private sector participation in the sector. (c) - Financial: There is a lack of financial resources because of inadequate cost recovery, and of clear and transparent regulatory arrangements for setting tariffs. Significant investments in the sector have taken place in recent years but without concurrent improvements in operation and maintenance capacity or introduction of adequate tariff levels. At the institutional level, the Government strategy involves a number of sector reforms that have been already in place by the Government. A new water sector law was promulgated by Parliament in May 2000. It limits the role of the Ministry of Energy and Water (MOEW) to policy, bulk water supply (both for potable and irrigation use) , strategic planning and regulatory functions, while it consolidates the number of water servicing authorities from the current twenty one (21) to four (4) in order to improve efficiency. An amendment to the water sector law stipulating the re-allocation of the wastewater sector responsibilities to the MOEW and the water servicing authorities has been recently approved (May 2001) by the Council of Ministers and is expected to be ratified by Parliament during the summer of 2001. However, the new sector law does not cater for the need for the newly created regional

!!

water authorities to serve as fully autonomous. Major reforms are still required in order to render the sector more efficient and self-sustaining. These have been already discussed during this mission and aim at: (i) transforming existing institutions to enable them to independently manage sector activities and generate necessary financial resources; (ii) involving the private sector in operation and maintenance through management contracts, which subsequently could evolve into leasing or concession contracts.

#### 2. Objectives

The major development objectives of the proposed Beka'a Region Water Supply and Wastewater Project-BRWSWP (the project) include: a. improving the access of the residents of the region to satisfactory water supply and

wastewater services;b. introducing appropriate sector reforms, particularly: (i) the development and the strengthening of the capacity of the existing Baalbeck Hermel Water and Irrigation Authority (BHWIA) and the Beka'a Regional Water Authority's (BRWA) once it is established; andc. involving the private sector in the operation and maintenance of the water and wastewater facilities and to: (ii) prepare for the involvement of a Management Contractor (MC) into a lease or concession contract to secure the potential long-term financial needs for sector investments.

### 3. Rationale for Bank's Involvement

n The country and, in particular, sector experience gained by the Bank during its long-term involvement under the ERRP.n The assistance provided by the Bank to the Government in its preparation of a sector strategy paper as a base document for sector reforms and its following-up by the drafting of a Water Law. In this context, the Bank is financing technical assistance to the MOEW on institutional aspects.n The Bank experience from other countries, particularly in the region, on areas related to institutional development and the preparation and implementation of management contracts.n Providing long term financing and the potential for resource mobilization from other donors.

### 4. Description

The project would consist of the following four (4) components:

1. Institutional Development
2. Improving and increasing service coverage for water supply
3. Improving and increasing service coverage for wastewater collection
4. Technical assistance, training and consulting services
5. Financing

Total	( US\$m)
BORROWER	38.45
Total Project Cost	56.00

### 6. Implementation

Institutional Arrangements. As mentioned earlier, and based on the Water Law 221, the existing twenty (21) water authorities in Lebanon will be consolidated into 4 regional authorities with one of these covering the Beka'a region. The water authorities to be consolidated in that area

- 2 -

include Baalbeck-Hermel, Zahle, and Chamsine. An amendment to the water law on the integration of wastewater into the regional water authorities has been adopted by the Council of Ministers This is expected to be ratified by Parliament during the summer of 2001. This would enable the transfer of the responsibility for wastewater collection and disposal from the municipalities to respective regional authority. Once appointed, the Board will establish a secretariat to be responsible mainly for investment planning, the execution of new works and for monitoring the performance of a Management Contractor. The Board will appoint a Management Contractor for taking-over and for further developing the functions presently performed by the three water authorities and municipal departments. The MOEW will continue to oversee the sector but will require further strengthening so as to assist the regional authorities in their establishment, to monitor their performance and to act as a regulator awaiting further developments.

Implementation Framework. The above-mentioned sector reforms are expected to be gradually implemented and one of the following institutional scenarios will prevail at project appraisal: Scenario-I: (Current scenario) a. Wastewater remains a municipal function b. No Board is appointed to the Beka'a Regional Water Authority Scenario-II: a. Wastewater is integrated with water b. No Board is appointed to the Beka'a Regional Water Authority Scenario-III: a. Wastewater remains a municipal function b. Board is appointed to the Beka'a Regional Water Authority Scenario-IV: (Best case scenario) a. Wastewater is integrated with water b. Board is appointed to the Beka'a Regional Water Authority An institutional review of the BHWIA is presented in Annex-3. The relevant institutional responsibilities under the

different scenarios are presented in Annex-4 and are summarized below: (a) - Ministry of Energy and Water: The MOEW will undertake all the necessary preparatory work that is necessary for the timely preparation of the project, especially the amendment of the water Law; the appointment of a Board of Directors for the BRWA. It will also make adequate arrangements, together with the CDR for securing the necessary funding for the provision of private house connections. (b) - The Council for Development and Reconstruction: The CDR, being the project's funding and implementing agency for the ERRP, will remain responsible for the operation and maintenance of the built facilities until these are gradually handed-over to the BHWIA. The CDR will secure funding also during the transition phase (from Service to Management Contract) for studies and technical assistance and will finance water connections beyond the ERRP. The latter would be eligible for retroactive financing once the proposed project is effective. (c) - The Baalbeck-Hermel Water and Irrigation Authority (BHWIA): The BHWIA will benefit from technical assistance to be financed under the project in areas such as: financial, administrative and technical management; improved technical capabilities for the supervision of preventive maintenance and reactive repair procedures; efficient operations of the assets and; establishing efficient billing and revenue collection systems. The BHWIA will maintain its financial management and customer relation role while supervising the operation and maintenance activities carried-out by the "Service Contractor" prior to the introduction of the "Management Contractor". (d) - The World Bank: The World Bank will assist in the preparation of RfPs for consulting services for the preparation of tender documentation related to the management contract. Financial Management. (see Annex-5) The financial responsibility for the project implementation will be delegated to the Council of Development and Reconstruction. CDR is a public authority

-3 -

ii

established to be the government arm for planning and implementing projects for economic development and for rehabilitation and reconstruction of public infrastructure. An effective organization and financial structure characterize the control environment at CDR. CDR records are subject to post audit by the government court of accounts while an external independent auditor performs the annual audit of financial statements. CDR is implementing more than six Bank financed projects and its financial management system is satisfactory and meets the Bank minimum requirements. The CDR presently is in the process of upgrading its financial system to become capable of generating timely reports. Loan proceeds will be deposited in a separate Special Account established at a commercial bank and managed by CDR under terms and conditions satisfactory to the Bank. CDR will pay contractors and consultants from the Special Account. The authorized allocation of the SA would correspond to about four months of estimated disbursements under the Bank loan. Upon the project is considered LACI compliant and ready for PMR-based disbursements, the Special Account will be replenished based on PMRs submitted by CDR. Meanwhile and until the project is ready for PMR based disbursement Special Account replenishment will follow Bank procedures and the bank statement of SA activity would support all replenishment applications. Auditing Arrangements. Project accounts, including Special Account and SOEs/PMRs will be subject to external auditing by a qualified independent auditor under terms of reference acceptable to the Bank. audit reports will be submitted to the Bank no later than six months after end of each fiscal year. Implementation Schedule. This is proposed to cover a period of 5 years, or from 2002-2006, and to take into account specific considerations/assumptions as summarized below: a. The strengthening of the BHWIA through the provision of technical assistance in areas such as financial, administrative and technical management. b. The initiation of sector reforms has highest priority with the establishment of a Board of Directors and the

appointment of a management contractor as key elements.c. The Service Contract to be funded by the CDR, will act as a bridging arrangement to the management contract, and should be in place by October 2001 for a duration of 12-18 months.d. The Management Contract, for a duration of 4 to 5 years, is scheduled to be in place in the second half of 2002. The MC will be initially entered with the BHWIA.until the BRWA's Board of Directors is established.e. The construction of additional water distribution mains in the Baalbeck and Nabi Chit areas with the provision of service connections is proposed to start with a first component to be contracted urgently and could be eligible for retroactive financing. This will be followed by subsequent contracting for 3-5 packages to be executed sequentially for completion during 2002 and 2003.f. The contract on wastewater collection system for Baalbeck and surrounding villages could start by early-2002 for completion during 2003 to enable early connections to be made and utilization of available wastewater treatment capacity.This would conclude that investments in civil works under the project would mainly be completed during 2003, or during the first two years of project implementation, in order to optimize utilization of works previously constructed. The sector reforms have long duration and at the end of the management contract, preparatory works are proposed to be made for a continuation under a lease or concession contract. Terms of References are being prepared for: (i) the works; (ii) the installation of water connections; and (iii) the system operations and maintenance through a Service Contract for zones/areas to be determined in the

- 4 -

Baalbeck and Nabi Shit Areas Land Acquisition. No resettlements are envisaged under the proposed project. However, some expropriation is expected to take place for which appropriate procedures will be adhered to. Procurement. The following procurement arrangements, following Bank procedures, are proposed: (a) For management contract: I The management contract would be awarded based on international competition with a list of firms to be nselected based on interest to be expressed through advertisement in the Development Business. (b) For technical assistance and consulting services: I For the service contract the consulting firm, presently involved in construction supervision, could be appointed for the preparation of contract documentation, which subsequently could be extended to include supervision. The same consulting firm has been appointed for the preparation of design and tender documentation for water distribution main and service connections, which also could be extended to include supervision. i The contract with a consulting firm for the preparation of tender documentation for the management contract should be based on international competition. I For the secretariat to be established for investment planning and project management, staff could either be appointed on contract basis after evaluation of potential candidates or through provision of a team by a consulting firm to be subject to local competitive bidding. The same approach could apply for proposed technical assistance to the MOEW. I The contract with a consulting firm for construction supervision for the wastewater collection system for Baalbeck and surrounding villages would be based on local bidding with the preparation of a short list of consulting firms to be based on interest to be expressed through local advertisement. (c) For the execution of civil works and service connections and for supply of equipment: I For water distribution mains and service connections 3-5 contracts would be prepared for an average estimated cost of US\$2-3 million. These contracts, because of the nature of the works, would not attract foreign bidding and are proposed to be subject to local competitive bidding only. I The contract for supply and laying of wastewater collection networks for Baalbeck and surrounding villages should be based on ICB. I Supply of office and operation and maintenance equipment should, subject to the specifics, be based on ICB or international and/or local shopping. Disbursements. Disbursements under the Bank loan would cover:

a) For civil works Bank financing would be limited to 80- with 20- to be paid by the Government.b) For equipment supply Bank financing could cover up to 100%.c) For service connections, also to include the portion within individual properties, Bank financing would be limited to 80- with 20- to be paid by the Government/subscribers.d) For the management contract Bank financing would be limited to 50- of total costs. For the repair and rehabilitation fund Bank financing could cover up to 100% for equipment supply and 80- for civil works.e) For consulting services, training and technical assistance Bank financing could cover 100% of costs. A Special Account (SA) would be opened by the CDR in a commercial bank and would be operated by the CDR. The authorized allocation of the SA would correspond to about 4 months of estimated disbursements under the Bank loan. The SA should be operated in accordance with the Bank's operational policies. The replenishment applications should be supported by the necessary documentation, bank statement of the SA and a reconciliation statement of the SA against Bank records. The Bank could disburse against SOEs for the following types of expenditures: (i) on contracts for works and goods not exceeding US\$500,000 and US\$350,000 respectively; and (ii) on contracts for technical assistance/consulting services not exceeding US\$100,000 in

- 5 -

..

case of consulting firms and US\$50,000 in case of individual consultants.Project Supervision. The project is technically straightforward, while the components referring to sector reforms could prove to be complex in their implementation. The management contract will be among the first of its kind in Lebanon and the development of the Beka'a regional authority will be a forerunner in the context of countrywide institutional restructuring. In that respect, it will serve as a catalyst for similar steps to be taken for other regions. The requirements on Bank supervision will initially be significant, but would be less demanding during the latter years of project execution. The bulk of the works would be carried out by the Bank's resident mission with specific inputs to be provided by the headquarters, particularly, regarding capacity building and institutional development. Total inputs could be estimated at 120 staff-weeks with about 30 staff-weeks annually during the first two years and 20 staff-weeks annually during succeeding three years. Monitoring and evaluation arrangements. Performance criteria will be established for both the service and management contracts and these will form part of the contractual agreements. For the management contract, annual business plans will be prepared including specific targets to be achieved. Likewise, performance criteria will be established for the the implementation of the 5-year investment program, including additional population coverage and extension of water supply and wastewater services. The monitoring will also cover specific environmental requirements regarding compliance with standards set on wastewater effluents and their use for agricultural purposes. Once established, the Board of Directors and its Secretariat will be made responsible for monitoring and evaluating all activities to be performed by the regional authority with the submission of regular progress reports to the MOEW for review and comments.

#### 7. Sustainability

The sustainability of the project will only be ensured provided: n Connections (inside property lines) will be made to water supply distribution mains and to wastewater collection systems. This should be paid for by the subscribers, which possibly could be arranged through installments to be paid with the water bills. Special arrangements will be made for the poor whereby the Government pays the totality or part of the cost;f Installation of water meters will take place as envisaged, which will ensure water conservation and water availability throughout the distribution systems;f The Management Contract will materialize as planned and if relevant performance will be satisfactory; andn The Secretariat will develop, at an early date, sufficient capacity for carrying out its

assignments.

8. Lessons learned from past operations in the country/sector  
The ERRP concentrated on rehabilitation and reconstruction of works, which were executed as emergency measures. This should now be followed by the execution of works to take place concurrently with institutional restructuring and capacity building. Lessons learned under the ERRP, that have been taken into account in the design of this project, could be summarized as follows: Unless institutional restructuring and capacity building will urgently take place, there is a severe risk that assets already rehabilitated or created will deteriorate and adversely affect level and standard of services. Also because of inadequate tariff levels financial viability has not been achieved, and thus sufficient funds have

- 6 -

[[ not been made available to ensure satisfactory operation and maintenance; I Project preparation during the emergency stage followed a "fast track" approach which, in many cases, adversely affected the design and necessitated subsequent revisions to be made. This often lengthened the construction period and eliminated any possible time savings achieved during the planning and design phase; I In case of funding constraints, any reduction in scope of works should be made without jeopardizing the possibility of full utilization of facilities to be commissioned to avoid the need for complementary investments; i Qualifications and experience of current staff are inadequate for present needs, and since capacity building through training and/or technical assistance is unlikely to achieve required level of competence, private sector participation in crucial functions is essential; and I Land expropriation has taken much longer than anticipated, and there is a need for better forward planning and for ensuring the availability of land, being critical for works execution, already at contract award.

9. Program of Targeted Intervention (PTI) Y

10. Environment Aspects (including any public consultation)

Issues Environmental issues: [ I Summarize issues below (distinguish between major issues and less important ones) [ I To be defined (indicate how issues will be identified) [ I None  
Major: The components of the proposed project have been reviewed and environmentally screened. It is proposed to classify the project as Category B, consistent with the provision of the Operational Policy 4.01, Annex C. The environmental screening showed that there are no major adverse environmental impacts. The proposed project is expected to have major beneficial impacts on the environment, as it would provide proper collection of wastewater thus reducing groundwater contamination. The project would also provide controlled water supply connections to the households and will reduce overdraft of the aquifer. It will also improve health conditions of the rural population by providing them with good quality domestic water from storage facilities. These potential benefits should outweigh the magnitude of the adverse environmental impacts arising from the construction of the water distribution and wastewater collection networks. Other: (1) Monitoring and control of the water quality source being used for water supply; (2) Monitoring and control of the operation of the wastewater collection and of the existing treatment facility; (3) Monitoring the disposal of sludge from the treatment plant; and (4) Adopting adequate guidelines for the re-use of treated effluent for irrigation purposes.

11. Contact Point:

Task Manager  
Mohammed Benouahi  
The World Bank  
1818 H Street, NW  
Washington D.C. 20433  
Telephone: 961-1-987 800  
Fax: 961-1-986 800

12. For information on other project related documents contact:  
The InfoShop  
-7-

ii

The World Bank

1818 H Street, NW

Washington, D.C. 20433

Telephone: (202) 458-5454

Fax: (202) 522-1500

Web: [http:// www.worldbank.org/infoshop](http://www.worldbank.org/infoshop)

Note: This is information on an evolving project. Certain components may not be necessarily included in the final project.

This PID was processed by the InfoShop during the week ending October 12, 2001.

- 8 -

ii

الجمهورية اللبنانية  
مكتب وزير الدولة لشؤون التنمية الإدارية  
مركز مشاريع ودراسات القطاع العام

Republic of Lebanon  
Office of the Minister of State for Administrative Reform  
Center for Public Sector Projects and Studies  
(C.P.S.P.S.)