INTEGRATED SAFEGUARDS DATA SHEET
CONCEPT STAGE

Report No.: ISDSC5500

Date ISDS Prepared/Updated: 17-Oct-2013

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I. BASIC INFORMATION

A. Basic Project Data

Country:	Lebanon	**Project ID:**	P125184
Project Name:	Lebanon-Water Augmentation Project (P125184)		
Task Team Leader:	Claire Kfouri		
Estimated Appraisal Date:	14-May-2014	**Estimated Board Date:**	10-Dec-2014
Managing Unit:	MNSWA	**Lending Instrument:**	Specific Investment Loan
Sector(s):	General water, sanitation and flood protection sector (100%)		
Theme(s):	Water resource management (80%), Other public sector governance (20%)		
Financing (In USD Million)			
Total Project Cost:	480.00	Total Bank Financing:	125.00
Financing Gap:	0.00		

Financing Source	Amount
Borrower	221.00
International Bank for Reconstruction and Development	125.00
Islamic Development Bank	74.00
SAUDI ARABIA Saudi Fund for Development	60.00
Total	480.00

Environmental Category:	A - Full Assessment
Is this a Repeater project?	No

B. Project Objectives

The project development objective is to increase the volume of water available to the Greater Beirut and Mount Lebanon area.

C. Project Description

Despite its internal rivers and relatively large aquifers, freshwater availability in Lebanon is only

considered high when compared to its larger, arid neighbors. Effectively, despite investments in infrastructure and a vision for institutional change, the Government of Lebanon (GoL) has not been able to deliver to date on its national goal of improved water service and sustainable and integrated water resources management. The ensuing development deficit in the water sector has largely been a result of: (i) delayed implementation and cost of critical storage, distribution and treatment infrastructure; (ii) lags in operation and maintenance of existing infrastructure; (iii) incomplete implementation of Law 221 which precludes water establishments from providing sustainable access to and quality of service; and (iv) the challenges inherent of reforming traditional irrigation practices.

As a result, per capita water availability in Lebanon is already 926 m3/year, and is thus already defined as water scarce. Due to a lack of surface water storage and over 40 percent average losses from the distribution system, areas that are serviced by the public water network receive as little as three hours of water per day for over six months of the year. A large informal private sector supplements the insufficient public water supply through thousands of unlicensed wells, the construction and operation of which is largely unregulated by GoL.

In the GBML area alone, where over 2.3 million people live, the water supply deficit will reach an estimated 350 million cubic meters (MCM) by 2035. Absent: (i) an increase in storage capacity to capture seasonal surface water runoff; (ii) reduction in physical and commercial water losses; (iii) regulation of groundwater use and (iv) the implementation of volumetric metering, chronic water shortages will become endemic across Lebanon by as early as 2020.

Recognizing the need for urgent action, GoL examined the various alternatives for water supply augmentation to GBML in the long term, by developing: (i) a detailed water balance and (ii) a technical, economic, environmental and social evidenced-based review of nine different alternatives for water supply augmentation. Based on thorough review of this work and extensive public consultation, GoL committed to implementing the following infrastructure and reforms to close the anticipated water supply deficit described above and meet the GBML's medium and long term demands for water:

- Damour and Janna dams: which will provide up to 40 MCM/year and 15 MCM/year respectively to the GBML;
- The Greater Beirut Water Supply project (GBWSP), currently under implementation with partial financing from the World Bank (SIL – 200M - P103063) and will provide an additional 50MCM/year to the GBML in the short term by: (i) conveying water from the existing Joun reservoir through two underground tunnel; (ii) rehabilitating and/or replacing over 400 kilometers (km) of distribution network; (iii) installing 200,000 water meters across the GBML area; and (iv) developing the capacity of the Beirut Mount Lebanon Water Establishment (BMLWE) in utility operations.
- Improved groundwater and surface water management: to sustainably mobilize approximately 100 MCM/year to the GBML, detailed plans for which are being proposed as part of the Groundwater Assessment and Database study
- Demand management measures: including the introduction of volumetric tariffs, and consumer awareness raising among other measures included in the NWSS and
- The Bisri Dam which will provide an additional 125 MCM/year of water to the GBML. Water stored at the Bisri dam will be conveyed, treated and distributed through the tunnel, water treatment plant and distribution networks currently under implementation as part of the GBWSP.

The proposed Project components are thus:

Component 1 – Bisri Dam Infrastructure Works and Construction Supervision (Estimated cost US $470 million including expropriation of lands). Under this component, the Islamic Development Bank (IsDB), the Saudi Development Fund (SDF), and the World Bank will jointly finance the construction and construction supervision of a water supply dam and associated infrastructure on the Bisri river. Associated infrastructure is expected to include an access road, small hydropower plant and transmission line and will be finalized as part of the ongoing detailed design. This component will also finance: (i) construction supervision, (ii) environment and social panel of experts, (iii) monitoring and evaluation of project implementation, and (iv) potential community development and benefit sharing programs as appropriate.

Component 2 – Technical Assistance (Estimated cost US$10 million) This component will strengthen and accelerate the implementation of GoL's complementary components of the strategy for increased water security in the GBML area namely: (i) strengthening the Ministry of Energy and Water (MOEW) in the regulation and safety of all Lebanese dams; (ii) piloting various aquifer recharge technologies and/or other groundwater management options as appropriate; (iii) strengthening the capacity of the BMLWE in measures to improve cost recovery, dam operations, wastewater management and optimizing its water supply network and (iv) supporting MOEW in raising awareness and strengthening communications on water demand management measures. Component 2 will also finance the implementation, monitoring and follow up of the environment and social management plan (ESMP) for construction and operation, as well as the resettlement action plan (RAP).

D. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

The proposed dam construction works will be a center core rockfill dam with 73 m in height, 790 m in crest length, 125MCM in reservoir capacity, and 2,235 m3/s in spillway capacity. The potential for hydropower generation (up to 4.5 Megawatts) is currently under review by the design engineers. The proposed Bisri Dam site is about 15 km east of the coastal city of Saida and 35 km south of central Beirut, at an elevation of 395 meters above sea level (masl). The reservoir extends for about 4 km upstream of the dam axis and at maximum water level, 462 masl and the area expected to be inundated is approximately 450 ha.

The upper catchment is characterized by the steep slopes and cliffs, with small traditional villages of red-tiled houses perched on hilltops and cliff edges. The lower catchment downstream of Bisri Village, beyond the ancient landslip, the river again occupies a narrow steep sided valley in which agriculture is largely limited to tree-crops grown on terraced slopes. Despite the presence of extensive agriculture, the Bisri Valley upstream of the dam site is very sparsely populated, with no significant settlements or communities beyond family groups. The majority of land owners are absentee landlords, and most of the families present are tenant farmers or seasonal labor. Throughout the reservoir area there is a total absence of non-agricultural commercial or industrial activities.

The legal basis for the Environmental Impact Assessment (EIA) system is established in the Environment Protection Law No. 444/2002 and Law No. 690/2005 on the reorganization of the Ministry of Environment (MOE) and the EIA decree No. 8633/2012 and its annexes. The EIA decree and its annexes include all the requirements for screening, preparation of the environmental assessment and the supervision of the environmental assessment process including consultation and disclosure. The EIA unit in the Ministry of Environment consists of three full-time staff and 20 part time staff, of whom many are knowledgeable about the national EIA system and the World Bank Safeguards for which they received substantial training. It is expected that the Council of

Development and Reconstruction (CDR) and the MOE will work together in meeting the project's safeguards deliverables especially in meeting in-country and the Bank policies.

The proposed project falls under the World Bank environmental category "A" classification due to the potential adverse environmental and social impacts that could be sensitive, diverse or unprecedented. Impacts associated with category A projects may affect areas broader than the sites or facilities subject to physical works. The following safeguards policies are triggered by the project: Environmental Assessment (OP.BP 4.01); Natural Habitat (OP/BP 4.04); Physical Cultural Resources (OP/BP 4.11); Involuntary Resettlement (OP/BP 4.12), and Safety of Dams. The GoL has prepared a draft ESIA and RAP that are currently under review by the Bank.

A panel of independent internationally-recognized environmental and social experts are in the process of being appointed by GoL and will accompany and supervise project preparation and implementation in line with best practice international standards and Bank safeguards policies. The independent panel of experts on environmental and social aspects will comprise an environment expert, a public health expert and a social expert. As the detailed design of the dam progresses, the RAP and ESIA will continue to be developed in parallel and in full coordination with the detailed design.

E. Borrowers Institutional Capacity for Safeguard Policies

CCDR will be responsible for project preparation and implementation. CDR has extensive experience with managing and implementing projects financed by World Bank Grants and Loans under World Bank Procurement and Safeguard Guidelines (including more recently the Greater Beirut Water Supply Project and the Beirut Urban Transport Development Project for example). CDR is familiar with the requirements of the safeguards policies of the Bank and its capacity on safeguards has been strengthened through implementing previous projects.

With regard to the resettlement and land acquisition, the Government of Lebanon has well established institutional arrangements for valuation of lost assets. The value of compensation to the lost assets is determined by an Expropriation Committee (EC), which is composed of a judge, an engineer and an assessor. The affected persons, including the land owners, tenants (both legal and illegal) and project entity (CDR), are consulted in the valuation process. Any land take (both temporary and permanent) will be carried out in accordance with OP 4.12.

However, an assessment of CDR's safeguards capacity relating specifically to dam construction will need to be carried out as part of the ESIA and RAP preparation. Further, the Bank will undertake an assessment of the proposed dam operator's capacity for safeguards and E&S implementation. Capacity building activities will need to be carried out according as an integrated part of the project preparation and implementation. During preparation and implementation, the Government team will also receive guidance from the Bank's environmental and social specialists.

F. Environmental and Social Safeguards Specialists on the Team

Mutasem El-Fadel (MNSEE)

Chaogang Wang (MNSSU)

Africa Eshogba Olojoba (MNSEE)

II. SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/ BP 4.01	Yes	The environmental assessment policy is triggered as the project could have impacts on the environment due to the construction and operation of the Bisri Dam infrastructure. The Environmental and Social Impact Assessment (ESIA) is on-going. A draft ESIA has been submitted to the Bank and is currently under review. The final ESIA will need to be reviewed, approved and disclosed in-country and at the Infoshop prior to appraisal. An Environmental and Social Advisory Panel is also in the process of being recruited.
Natural Habitats OP/BP 4.04	Yes	The natural habitats policy is triggered due to the project location and potential impact on the biodiversity (species and habitats). A biodiversity survey and management plan will be conducted and will be part of the revised ESIA.
Forests OP/BP 4.36	No	This policy is not triggered as no activities on forests are expected.
Pest Management OP 4.09	No	This policy is not triggered as the use of pesticides is not envisaged in this project.
Physical Cultural Resources OP/ BP 4.11	Yes	This policy is triggered because of the project's potential to affect archeological or cultural or religious sites. Chance find procedures will be prepared and attached as an annex to the ESIA. Lebanon has extensive experience dealing with physical cultural resources. CDR has already involved the Ministry of Antiquities to ensure coordination in this regard.
Indigenous Peoples OP/BP 4.10	No	This policy is not triggered as there are no known indigenous peoples in the project area of influence.
Involuntary Resettlement OP/BP 4.12	Yes	This policy is triggered as construction of the Bisri dam involves resettlement. A first draft resettlement action plan (RAP) has been submitted, the Bank provided comments and the updated RAP is currently under review by the Bank. The revised RAP will be reviewed, approved and disclosed in-country and at the Infoshop prior to appraisal.
Safety of Dams OP/BP 4.37	Yes	This policy is triggered as the project is supporting dam infrastructure higher than 15 meters. The recruitment of a Dam Safety Panel

		of Experts is underway by CDR. The Panel will review the Bisri dam design and dam safety plans. Per OP 4.37 requirements, the developer is expected to integrate the observations and the relevant recommendations of the panel in the construction design, operation and the Project's dam safety plans. Dam safety plans will need to be prepared and reviewed by the Panel prior to project appraisal.
Projects on International Waterways OP/BP 7.50	No	This policy is not triggered as the entire Basin of the Bisri dam is located in Lebanon.
Projects in Disputed Areas OP/BP 7.60	No	This policy is not triggered as there are no known disputes over the project area.

III. SAFEGUARD PREPARATION PLAN

A. Tentative target date for preparing the PAD Stage ISDS: 30-May-2014

B. Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing[1] should be specified in the PAD-stage ISDS:

The required safeguard instruments for the proposed project are: (i) ESIA (with a comprehensive ESMP), (ii) RAP; and (iii) dam safety plans. All of these studies have commenced, and final reports are expected to be completed and disclosed (both in-country and at the World Bank Info Shop) by February, 2014 and before appraisal planned to take place in May/June 2014.

IV. APPROVALS

Task Team Leader:	Name: Claire Kfouri	
Approved By:		
Regional Safeguards Coordinator:	Name: Nina Chee (RSA)	Date: 18-Oct-2013
Sector Manager:	Name: Steven N. Schonberger (SM)	Date: 18-Oct-2013

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[1] Reminder: The Bank's Disclosure Policy requires that safeguard-related documents be disclosed before appraisal (i) at the InfoShop and (ii) in country, at publicly accessible locations and in a form and language that are accessible to potentially affected persons.