

## Environmental and Social Data Sheet

### Overview

Project Name: LEBANESE HIGHWAYS II  
 Project Number: 2009-0635  
 Country: Lebanon  
 Project Description: The project consists of the upgrading and widening to three lanes, plus a service lane, along the dual carriageway section of the A1 highway between Nahr-El-Kaleb/Dbayeh and Tabarja, some 10.3km long, with (2x1) improvements to three access roads. The project also entails the upgrading of two other major interchanges/overpasses in the adjoining neighbourhoods of Beirut viz. the Kouarantina Westbound Exit Ramp (KWER) and the Ministry of Power and Water (MOP&W) overpasses.  
 EIA required: yes  
 Project included in Carbon Footprint Exercise<sup>1</sup>: yes (details for projects included are provided in section: "EIB Carbon Footprint Exercise")

### Summary of Environmental and Social Assessment, including key issues and overall conclusion and recommendation

The A1 project involves the upgrading and widening of an existing 2x2 highway to 2x3 between Dbayeh and Tabarja in Beirut for 10.3km. If the project was located in the EU it would have fallen under Annex II of the EIA Directive 2011/92/EU, as amended. The project was screened in by the Competent Authority in accordance with Lebanese Law on Environmental Impact Assessment. An EIA has been done and a copy submitted to the Bank. To date the environmental and building permits for the project have not been granted as the designs are almost complete. Land acquisition and procurement is expected to be undertaken in 2013 and construction is expected to commence in late 2013 to early 2014.

For the A1, the main residual negative environmental and social impacts are i) conversion of land (approx. 193 plots- 5092m<sup>2</sup>) ii) noise (expected to be reduced with the project), vibration and visual intrusion for certain properties near to the roadway. The EIA has recommended landscaping, the use of low noise asphalt and the construction of acoustic barriers between the highway and service roads to mitigate noise. A number of environmental construction management measures have been specified in the tender documents ranging from quarrying procedures to re-use of excavated gravel and dust mitigation.

With regards to Biodiversity (Habitats Directive (92/43/EEC) and Birds Directive (79/409/EEC)) the EIA states that there are no protected areas that are potentially affected by the A1 highway project. The project passes through an urban area and the flora and fauna primarily occur closer to the coast and behind buildings. With respect to public consultation land expropriation decrees have been passed and consultations held. At consultations in 2009 no major objections were upheld from property owners as the project was still at a preliminary stage. The project is not expected to have a significant impact on the environment.

For the A1 the Promoter has advised that all the residents have land titles (to be confirmed) however as 12 commercial and one residential property extends illegally into the existing road reservation appropriate economic compensation will have to be determined to ensure that they are not worse off with the project. In addition 9 private properties have violated their setback conditions within their boundaries (too close to the road) and some redress is

<sup>1</sup> Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO<sub>2</sub>e/year absolute (gross) or 20,000 tons CO<sub>2</sub>e/year relative (net) – both increases and savings.

needed. The Promoter would be required to develop a Land Acquisition and Resettlement Plan acceptable to the Bank as a condition for first disbursement.

#### **Disbursement conditions**

- The promoter shall confirm that a Road Safety Audit in accordance with the principles of the EU Directive 2008/96/EC has been duly completed for the main A1 corridor.
- Prior to the first disbursement for which funds are to be applied in part for the 1) A1 Highway between Nahr-El-Kaleb/Dbayeh and Tabarja, ii) the El Mawared Interchange/MOP&W Overpass and the Kouarantina Westbound Exit Ramp (KWER) the Promoter shall provide (i) a copy of the approved Land Acquisition and Resettlement Plan (LARP) for each section, compliant with EIB standards (ii) a copy of the Independent Review confirming implementation of the LARP for each section assuring that 100% of the land is made available to the contractor; and (iii) confirmation that the recommendations of the road safety audit in accordance with the principles of the EU Directive 2008/96/EC have been included in the final design or justification where such recommendations have not been adopted.
- Final design and tender documents for the construction and supervision of the A1 road section should include the Environmental Mitigation and Monitoring Plans and receive approval by the Bank. Final Tender documents should also include a clear statement that bidders are responsible for identifying suitable quarries for the purpose of the project.
- The environmental permits should be submitted to the Bank.
- Include written confirmation from the Competent Authority that the provisions of the EU Habitats Directive 92/43/EEC (or equivalent impact on protected areas) have been complied with (Form A or B or equivalent).

#### **Undertakings**

- The Promoter shall budget and secure adequate resources for the implementation of the approved LARPs.
- The Promoter shall provide a copy of semi-annual environmental and social monitoring reports, including adequate reference to Labour standards; Occupational Health and Safety; Community Health and Safety as well as evidence of the progress in implementation of LARPs.

### **Environmental and Social Assessment**

#### **Environmental Assessment**

The Competent authority, the Ministry of the Environment, will approve the EIA and provide the environmental decision for the project. The implementation of the project will entail a major traffic management exercise to keep traffic moving during construction. In this regard five roads will be upgraded to provide alternate routes during construction viz.

Zouk Mosbeh – Kaslik trough (an underpass) (0.3km)

Zouk Mikael – Haret Sakhr (0.5km);

SahelAlma-Ghazir (0.3km) and

Kfarhabab – Adma (1.8km).

Tabarja – Kfaryasine (1.5km)

These roads are all located in urban areas around the highway in greater Beirut. In addition two overpasses will be constructed viz the Kouarantina Westbound Exit Ramp (KWER) and the El Mawared/Ministry of Power and Water (MOP&W). An EIA has been done for these overpasses and a copy submitted to the Bank. The submission of the environmental permit for the overpasses will be a disbursement condition. The main impacts of the (Overpass) project are i) conversion of land ii) surface water runoff: change of river discharge iii) air

quality (high values recorded for the interchanges) iv) noise and vibration iv) visual impacts. Mitigation measures include landscaping, appropriate engineering designs, noise barriers along overpass. An outline of the main elements for an environmental management plan has been provided in the EIA. This would be finalised by the contractor. There are no areas of nature conservation (protected species) in the vicinity of the overpasses. The planting of trees and landscaping are expected to have a positive impact. A road safety audit is to be undertaken on the A1 project corridor.

### EIB Carbon Footprint Exercise

The Project is included on the following basis:

- Estimated annual third party greenhouse emissions (vehicular use, from existing and generated demand) from the use of the Project in a standard year of operation:
  - ✓ Forecast absolute (gross) emissions are 143,000 tonnes of CO<sub>2</sub> equivalent per year; and
  - ✓ Forecast emissions decreases are 10,600 tonnes of CO<sub>2</sub> equivalent per year.
- The Project boundary is equivalent to the A1 corridor over a distance of 10.3 km.
- The baseline is the forecast third party emissions, in the absence of the Project, from the existing network within the Project boundary defined above. The forecasts are based on Services' assumptions on traffic, traffic growth, speed flow, infrastructure capacity and fuel consumption.
- For the annual accounting purposes of the EIB Carbon Footprint, the Project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of Project cost.

### Social Assessment, where applicable

For the A1 Highway a total of 193 plots are to be acquired. The total number of affected buildings is 50 as follows:

	Total	Buildings within private properties		Buildings extending beyond public domain	
		Residential	Commercial	Residential	Commercial
Total number of affected plots	193	N/A	N/A	N/A	N/A
Total number of affected buildings	50	15	22	1	12
Number of buildings violating set back conditions within private properties	9	9		N/A	
Total number of affected families	17	13	N/A	4	N/A

17 families will be affected by the acquisition process. It is not clear how many land plots are to be acquired for the overpasses. This will be determined with the LARP.

### Public Consultation and Stakeholder Engagement, where required

Public consultation was done for the A1 highway in October 2009. The major land owners have been notified of the planned acquisition. No major objections were recorded from shop owners, and the municipalities of Kesrouan, Flouh, and Jounieh. Consultation for the two overpasses/intersections was held in February and March 2009 with the Mayors, residents, shop owners, and concerned people. Few concerns were expressed over the proposed construction. They were made aware of the construction impacts including noise, vibration, emissions, air quality, and traffic congestion. Concerned municipalities agreed to undertake coordination meetings during construction of the overpass. Air quality levels/emissions are not expected to be reduced and remain high with the project however noise is expected to be reduced.

**Other Environmental and Social Aspects**

An EMP is to be done for the A1 and overpass contracts. A baseline survey has been done at all the sites with respect to emission levels/air quality and noise. Emissions in Beirut are high with /without the project. These are to be monitored during construction and operation.

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