

Environmental and Social Data Sheet

Overview

Project Name: Armenia North-South Road Corridor
 Project Number: 20100130
 Country: Armenia

Project Description: the project is part of an overall programme aimed at improving and upgrading the North-South Road Corridor (NSRC) in Armenia. The NSRC runs 556km from the border with Georgia at Bavra via Gyumri, Ashtarak, Yerevan, Goris, and Kapan, to the border with Iran at Meghri (in the South). The project aims to improve some 145km (of which 11km are 2x2, 87km are 2x1 to be widened to 2x2, and the remainder is and will remain 2X1) of the northern part of the corridor between Yerevan and Bavra. Works will be executed in 4 Tranches. The Bank is financing Tranche 3. Another EIB loan may finance Tranche 4, which is still at a very early stage of development. In this case, Tranche 4 will be presented as a separate operation subject to a new environmental and social assessment. .

EIA required: Yes

Project included in Carbon Footprint Exercise¹: 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 NSRC project involves the upgrading and/or widening to 2x2. If the project was located in the EU, Tranches 2, 3 and 4 would be Annex I of the EIA Directive 2011/92/EU. These Tranches were screened in by the Competent Authority in accordance with Armenian Law on Environmental Impact Assessment. Two EIAs were completed and submitted to the Bank for Tranches 2 and 3. Tranche 4 will be appraised later under a separate operation on when the documentation is completed. Tranche 1, as it is an upgrading of an existing 2x2 highway, was screened out, i.e. was not subject to an EIA. This is also in line with the EIA Directive 2011/92/EU. Construction of Tranches 1 and 2 (one contract) commenced in April 2012 and is being financed by the Asian Development Bank. Land Acquisition and Resettlement Plans (LARP) have been prepared for Tranches 2 and 3 in keeping with Asian Development Banks' guidelines. The proposed EIB loan will finance Tranche 3 only.

The main residual negative impact of the project are conversion of land (Tranche 2 consists of 173Ha or 838 plots and Tranche 3, 135.7 Ha, or 1076 plots with implementation of the LARPs scheduled for completion end 2012 and end 2014 respectively), noise and vibration, visual intrusion for certain properties near to the roadway, and severance (people and animals). The EIA has recommended landscaping, and further noise monitoring and drainage/animal crossings. The improved designs will result in a reduction in noise overall but some areas are still in excess of the legal limits.

For Tranche 3 all anticipated impacts on the environment, archaeological and cultural sites and monuments are expected to be temporary with main impacts occurring during the construction period. Positive global impacts may be derived from further excavations of existing archaeological sites and from the new sites discovered during the EIA study period, as well as improved road safety. The major trans-boundary impact is that the upgraded highway will benefit transportation of goods and people.

¹ 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 CO₂e/year absolute (gross) or 20,000 tons CO₂e/year relative (net) – both increases and savings.

With regard to Biodiversity (Habitats Directive (92/43/EEC) and Birds Directive (70/409/EEC), some protected species (red book) of flora and fauna (migratory birds) occur in the project area. These will receive special attention during the implementation of the Environmental Monitoring Plan (EMP). Absolute CO₂ emissions are estimated at 117kt/yr .

Overall, the project is not expected to have a significant impact on the environment.

Conditions prior to first disbursement

- For Tranches 1, 2 and 3 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).
- The environmental and building permits for Tranches 1 and 2 should be submitted to the Bank.
- The Promoter shall provide (i) a copy of the approved Land Acquisition and Resettlement Plan (LARP) for each section (Tranches 2 and 3) (ii) A copy of the independent review confirming implementation of the LARP for each of the two Tranches 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.
- The overall financing package for the project has been secured, including the amount relating to land acquisition for Tranche 3.

Preceding the second disbursement

- The environmental and building permits for Tranche 3 should be submitted to the Bank.

Undertakings

The promoter shall budget and secure adequate resources for the implementation of the LARPs.

The promoter shall include in the semi-annual progress reports under the environmental section, a report on environmental and social monitoring, including adequate reference to Labour standards; occupational Health and safety as well as evidence of the progress in implementing the LARPs.

Environmental and Social Assessment

Environmental Assessment

The project follows the route of the existing M1 road consequently there are no practicable alternatives in terms of general alignment and construction methodology and the no-go option is not considered viable as it would run counter to Government planning of the comprehensive highway network of which the highway is a vital link. Proposed alternatives relate to interchanges, road geometry, alignment and road widening. These alternatives are proposed to mitigate and preserve the importance and significance of the sites archaeological, historical and cultural values.

Three red book (flora) species are in the project area (*Allium oltense* Grossh, *merendera greuteri* Gabrielian and *Alcea Sophora* liin). Special mitigation measures are to be included in the EMP to minimise the negative impact on flora and to avoid any detrimental effects on the plants. The contractor would be required to engage a botanist to locate the red book species

and mitigate any potential damage including replanting in suitable locations if needed. Several fauna are located in the vicinity of the project. Migration routes have been identified and where possible drainage elements used to provide animal migration passages. In addition mitigation measures have been provided for inputs to the EMP.

A number of archaeologically sensitive sites occur along the route. These include several old tombs, complexes and other monuments dating back to the Bronze - Iron Age (IV-1 millennia BC). 10 sites will be directly impacted by the project. Detailed mitigation and protective measures have been planned and will be included in the EMP.

EIB Carbon Footprint Exercise

Absolute emissions are 117,000 tons of CO₂ emissions per average operating year. The project is expected to increase CO₂ emissions due to the increased average speed (8,500 tons per average operating year) and induced traffic (less than 5,000 tons). It is hence estimated that as a whole the project will increase CO₂ emissions by about 13,000 tons per average operating year, representing 13% of baseline emissions. 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

Tranche 3

All affected land is legal and is registered with SCREC. The following legal categories of land are affected:

1. **Private-titled:** 679 plots (541 agricultural; 138 non-agricultural) measuring 625,413 m².
2. **Community land:** 394 plots measuring 731,347m². This land is further subdivided into: i) 389 plots directly administered by Local Self Governing Bodies (LSGBs) and used by community members as pastures, places for public amenities, rural roads or reserved for future use; b) 5 plots formally leased to private APs; and c) 2 plots informally given for free on short-term use to private AHs (informal tenants on the community land).
3. **Government Land:** 3 plots measuring 403m². Two plots are used for bus stations; the third is used by a pumping station.

Building and Structures on the Affected Land

The road alignment of the project will directly affect 27 structures with 2442 m², including 5 residential buildings and 22 commercial and public structures. However, there are potentially 25 plots with a total of 74 structures, which may be acquired by the project.

Tranche 2

The Project affects 838 land plots with:

- 477 AHs on 484 private land plots,
- 16 community-owners on 352 community land plots,
- 2 land plots owned by Republic of Armenia (RoA).

. The Project requires the acquisition of 1,734,144 m² of land. Of these, 746 plots (1,643,777 m²) are devoted to agricultural use while 92 (90,547 m²) are used for non-agricultural use (83 residential and 9 industrial plots).. In all 28 buildings measuring overall 2,699 m² (2 houses and 26 nonresidential buildings) will be affected. The 2 house owners will have to relocate.

A detailed LARP has been done for Tranches 2 and 3. These will be implemented and the funds put in place for land compensation prior to the start-up of the project.

Public Consultation and Stakeholder Engagement, where required

Tranches 2 and 3

The first public consultations were held in May 2010. 78 persons were consulted from a wide cross-section. A second consultation was held in July 2010 with 48 persons attending. The inputs have been incorporated into the design for the project.