Luxembourg, 17/11/2015

Environmental and Social Data Sheet

Overview

Project Name:	NICARAGUA HYDRO DEVELOPMENT AND TRANSMISSION
Project Number:	2014-0459
Country:	NICARAGUA
Project Description:	The project consists of 480 km of 230 kV east-west transmission lines and five new/extended substations in Nicaragua, which will connect a large hydro power plant (253 MW power, 40 km2 regulating reservoir) to the national and regional network. The present project involves both, public and private sector, whereby the EIB support will go to the public sector investment. The public sector investment concerns the transmission line which is to be implemented by the Nicaraguan government via the state owned transmission company. The hydro power plant (Tumarin) (a private sector investment and not subject of EIB finance) is being built by the private sector constructor.

EIA required:	yes
Project included in Carbon Footprint Exercise[1]:	yes

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

The project, as provides renewable hydroelectricity capacity to replace the existing use of fossil-fuel based capacity, is in line with EU objectives of sustainable development and climate change.
Due to its size and technical characteristics the project, if located within the EU, would fall under Annex I of EU EIA Directive 2011/92/EU, requiring mandatory EIAs for the hydro power plant and transmission lines, too. Therefore, the environmental and social impacts have been evaluated through appropriate ESIA procedures that included public consultation. The ESIA procedures and the issuance of the relevant environmental permits for the hydro power plant and transmission lines have been completed. However, the Finance Contract will contain appropriate conditions that enable to follow up the completion of the permitting process to the satisfaction of the Bank.

The Tumarin hydro power plan is located within a national protected area and will create a large reservoir of 40 km^2 that will, according to the environmental and social impact assessment (ESIA), have significant environmental impact on biodiversity and ecosystems, water (including water flow, ichthyofauna, etc.) and cultural and archaeological patrimony and will require the resettlement of 1,635 persons. The project is well advanced, in final stages of financial closure. The ESIA assessed a large number of impacts, suggested mitigating measures included in a detailed ESMP approved by the Nicaraguan competent authorities and concluded that the power plant can be constructed in an environmentally and socially

[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.

acceptable manner. The World Bank/IFC E&S standards are being applied for the hydro power private investment component of the project. The measures taken to protect the environment and the rights of the project-affected people and to avoid, reduce, mitigate, compensate and remedy the impacts are under implementation and are in line with, and acceptable to, the Bank.

More developments are planned on the same water body (Rio Grande de Matagalpa) as the Nicaraguan authorities are committed to increase the share of renewable energy in electricity supply, making energy supply, cheaper more secure and sustainable, and reducing and preventing greenhouse gas emission. Therefore, a detailed Cumulative Impact Assessment study is under preparation, assessing the likely impacts of the new/planned developments on the characteristics or level of the water body and its quality elements, including physical modifications and ecological effects.

The main component financed by EIB are standard transmission lines, situated mainly on flat, agricultural land and was subject to a separate and approved ESIA procedure concluding that the transmission line can be constructed in an environmentally acceptable manner. The environmental or social concerns are limited to visual impact of the line and land expropriations for the tower sites. The main negative residual impacts have been evaluated to be minimal and will mainly be concentrated during construction period being comparable to any large civil construction site, and these impacts have been mitigated with detailed project control mechanism. An adequate environmental mitigation and compensation programme was put in place as part of the ESMP developed and included in the ESIA, including measures to avoid, reduce and mitigate the impact, as well as monitoring indicators. The transmission line is expected to have positive social impacts, considering the improved integration of the populations living along the corridor. The ESIA process and its results are acceptable to the Bank. However, a Land Acquisition and Resettlement Action Plan (LARP), including a detailed communication and stakeholder engagement plan, satisfactory to the Bank will need to be produced prior to first disbursement. On the basis of the information provided, as well as the E&S conditionality to be included in the Finance Contract, the ESIA process and its results are acceptable to the Bank.

Environmental and social conditions prior to the first disbursement:

- The promoter shall provide a final Environmental and Social Management Plan of the transmission line (including the labour and occupational and communities health standards applicable during construction and operational phases) to the satisfaction of the Bank;
- The promoter shall provide a detailed Land Acquisition and Resettlement Action Plan (LARP) of the transmission line (including a communication and stakeholder engagement plan) to the satisfaction of the Bank;
- The promoter shall report the land acquisition of the line corridor prior to the start of the line works and first disbursement;
- The promoter is required to provide to the Bank (via interconnection agreement or other similar agreement with private investor) rights to monitor, visit and get reports regarding the hydro plant section.

Undertakings:

The construction or clearance works shall not start on any line section where the line route right-of-way acquisitions have not been reported to and accepted by the Bank.

The Cumulative Impact Assessment study prepared by the private investor will be reported to and accepted by the Bank.

Environmental and dam safety panels of the hydro plant need to be maintained during the construction period, and the Bank shall have full access to their reports. E&S performance and implementation of ESMP and RAP of hydro project should remainacceptable to the bank during implementation.

Environmental and Social Assessment

Environmental Assessment

The national legislation regarding environmental assessments is based on law 76/2006 (Sistema de Evaluación Ambiental), under which the competent authority MARENA (Ministerio del Ambiente y los Recursos Naturales) reviews the quality of the ESIAs reports, issues environmental permits and sets out environmental conditions for hydro power plants and transmission projects.

The hydro power plant was classified as a project of national strategic importance (Category I under national legislation) requiring a mandatory ESIA and therefore, a full ESIA was carried out. The ESIA of this component has been prepared by consultants financed by the private promoter in 2009 and approved by MARENA through the issuance of the environmental permit (licencia ambiental) in 2010. The process has included public consultation, held in 2010. The detailed design has identified changes of the project that required further amendments of the environmental permit. Therefore, the environmental permit was revisited twice, the latest in 2014 when additional environmental conditions were introduced. Environmental impacts consist of impacts on biodiversity and ecosystems, water environment (including changes to the water and ecological flows) and cultural and archaeological patrimony. As part of the approved ESMP, 27 sub-programmes have been prepared and are under implementation, among which 10 monitoring and management environmental related sub-programmes (covering the physical environment such as: monitoring of water quality, hydro morphology, erosion and sedimentology and the biological environment: fauna, flora, ichthyofauna, etc.).

The transmission lines are classified as project with significant environmental impacts (Category II under national legislation) requiring a mandatory ESIA and therefore, a full ESIA was carried out. The ESIA was prepared by independent consultants based on the scoping report (términos de referencia) issued by MARENA and was completed in 2014 when was also submitted to the competent authority for its revision and approval. The process included public consultation, held October-November 2014 and the environmental permit was granted in January 2015. The ESIA included the appropriate identification of the impacts, as well as the measures to avoid, reduce, mitigate and compensate the impacts, if the case, grouped into the ESMP which is integral part of the ESIA.

The main negative environmental and social impacts of high voltage transmission line are typically the visual impact of the towers and conductors, collisions of avifauna, expropriation of land and right-of-way for the structures, as well as the disturbances and nuisances during the construction. Appropriate mitigation measures were included in the ESMP that will be further detailed when the detailed design will be completed. The expropriation of the land and right-of-way does normally not require the affected people to move out from their land; however, the construction or clearance works shall not start on any line section where the line route right-of-way acquisitions have not been reported to and accepted by the Bank as part of the implementation of a detailed Land Acquisition and Resettlement Action Plan (LARP).

The project is strengthening renewable hydro generation plants connections to the network and reducing transmission losses. Project is enabling the increasing consumption to be supplied from sustainable sources.

EIB Carbon Footprint Exercise

The project has a large reservoir that is expected to emit methane and CO2 after the impoundment, and thereby create emissions affecting the climate change. The project enables renewable electricity production that replaces electricity presently produced from fossil fuels. The direct effect of the project shows 217 ktons of CO2 equivalent of (reservoir gas) emissions, while the relative baseline emissions (749 ktons/a with reduced fossil fuel consumption according to the Bank's methodology) show overall emission reduction of 532 ktons/year.

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to EIB lending amount signed in that year, as a proportion of the project cost.

Social Assessment

The Tumarin hydro power will, according to the environmental and social impact assessment (ESIA), require the resettlement of 1,635 persons. As part of the approved ESMP, 27 sub-programmes have been prepared and are under implementation, among which 13 social related sub-programmes developed based on an in depth socio economic analysis (e.g. land acquisition plan, resettlement action plan, including both compensation and relocation measures, rehabilitation and reintegration socio-economic plan, life quality monitoring plan, local community health and safety management plan, etc.).

Additional horizontal support and measures to mitigate social impacts grouped in 4 sub-programmes, are already financed as part of the ESMP and include: entrepreneurial training vocational training and workshops to support reintegration in the labour market, if needed, social communication (including door to door communication and awareness raising campaigns to inform the population on the developments in project's implementation and the resettlement actions), and environmental education.

The social impact of the transmission line was analysed as part of the approved ESIA which identifies the impacts on agriculture land and did not identify any resettlement of the affected people into new areas. However, the detailed Land Acquisition and Resettlement Action Plan (LARP) related to right-of-way acquisition and compensation/resettlements, if applicable, has not yet been developed as the detailed designed of the project is not yet available. The project will not lead to negative impacts on local employment, health or social equality. The project is not expected to affect vulnerable groups or sites of cultural heritage. The promoter is public enterprise that applies acceptable labour standards according to the nation Law on Occupational Health and Safety 618/2007 (Ley General de Higiene y Seguridad del Trabajo). The labour and occupational and communities health standards of the contractors are required to be addressed in the final ESMP.

Public Consultation and Stakeholder Engagement

The Tumarin hydro power plant development has a long history with several public consultation meetings with the local affected community and NGOs to finally reach an agreement with the project affected people related to the fair compensation and relocation. As the project is well advance, the compensation process is almost completed and a stakeholder engagement plan is under implementation.

For the transmission line, the public consultation was carried out under the ESIA process. The process included consultation meetings in main population centres along the line route. The public consultation meetings results indicated generally acceptance of the project. Most common questions were related to land acquisition/compensations and local employment.

Other Environmental and Social Aspects

More developments are planned on the same water body (Rio Grande de Matagalpa) as the Nicaraguan authorities are committed to increase the share of renewable energy in electricity supply. Therefore, a detailed Cumulative Impact Assessment study is under preparation, assessing the likely impacts of the new/planned developments on the characteristics or level of the water body and its quality elements, including physical modifications and ecological effects.

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