Luxembourg, 9 April 2019

Public

Environmental and Social Data Sheet

Overview

Project Name:	ETAPA Cuenca Waste Water Treatment Plant
Project Number:	2018-0507
Country:	Ecuador
Project Description:	Construction of a wastewater treatment plant in Guangarcucho, city of Cuenca, Azuay province (Republic of Ecuador)

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

Environmental and Social Assessment

Environmental Assessment

The project consists of the construction of the new Wastewater Treatment Plant of Guangarcucho (WWTP-G) near the city of Cuenca (Azuay Province in Ecuador) with a capacity of approximately 432,000 person equivalent (PE). The objectives of the new plant are twofold: (i) to treat wastewater at a higher standard than is currently possible in the overloaded existing Wastewater Treatment Plant of Ucubamba (WWTP-U), and (ii) to ensure that the city has sufficient capacity to treat wastewater until 2050 (based on the projected growth).

Compliance of the project with the principles of the EU Directive 2014/52/EU amending the EIA[2] Directive 2011/92/EU, and EIB Environmental and Social Standards was analysed, alongside with compliance with the Ecuadorian legislation. The two main legal documents governing the EIA procedure in Ecuador are the National Constitution (articles 14, 66 and 276) and the Law of Environmental Management (Ley de Gestión Ambiental).

According to national legislation, the project requires a full ESIA. The EISA was carried out in 2016, (including public consultations), and approved by the Competent Authority (Ministry of Environment of Ecuador). The Environmental Permit was granted in March 2018.

If located in the EU, the project would fall under Annex I of the EIA Directive, therefore requiring a full EIA.

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

[2] Environmental and Social Impact Assessment

Luxembourg, 9 April 2019

The protected areas in Ecuador are monitored under the National System of Protected Areas (SNAP), State Forest network (PFE) and Protected woods and vegetation (BVP). The project is not located and it will not affect any of these areas.

The design will treat wastewater following more stringent requirements than Ecuadorian legislation, in line with International Standards in terms of BOD (Biological Oxygen Demand) and TSS (Total Suspended Solids) removal:

Contamination Parameter	Final Design Existing WWTP and New WWTP	Ecuadorian Legislation	UWWTD EU Directive (91/271/EEC)
BOD_5 mg/l	<25	<100	<25
TSS mg/l	<35	<80	<35
Faecal Coliforms	≤ 1,000	-	-

The review and appraisal of the proposed operation have identified a number of potential positive environmental impacts:

- More efficient wastewater treatment;
- The new WWTP will allow a full rehabilitation of the existing the WWTP-U, without jeopardizing the quality in the River Paute;
- Significant reduction of negative impacts on the water quality of the River Paute;
- Reduction of greenhouse gas emissions;

Negative impacts are limited to the construction works and include:

- Temporary increased levels of noise and vibration;
- Risk of river or groundwater pollution through construction materials and products

The ESIA proposes mitigation measures for all the aforementioned impacts, including: (i) Environmental and Social Management Plan and (ii) Stakeholder Engagement Plan. All potential negative impacts of the Project are in general controllable and can well be prevented or reduced as required by the proposed mitigations and through the implementation of the Environmental Management Plan and the Stakeholder Engagement Plan.

Climate Action

For the wastewater treatment plant, there are only two significant risks related to climate change, which are (i) higher flood levels in the river Paute due to the increase of precipitations and (ii) land slides. These risks are mitigated as explained below:

- The Promoter has evaluated the maximum flood river level considering a return period of 100 y. (national legislation states only 50 y. return period), and has elevated the working platforms of the WWTP, by one meter in the Detailed Design. This would mean an additional security against Climate Change.
- The Promoter has engaged a consultant for the geological-geotechnical evaluation of the hills located in the proximity of the WWTP-G. The report confirms that no

measures are needed since the risk of lands slides is very low, and in case these would happen, they would not affect the WWTP.

The Project has a significant contribution to Climate Action Mitigation under application of EIB's relevant Guidelines. The climate action mitigation stems mostly from the wastewater and sludge treatment lines.

EIB Carbon Footprint Exercise

Estimated emissions savings are 35,000 tonnes of CO_2 equivalent per year. The absolute emissions of the Wastewater treatment plant have been calculated using the EIB tool, based on the IPCC methodology. The project will consist of a Waste Water Treatment Plant with aerobic biological treatment, and sludge treatment facilities for anaerobic digestion with energy recovery. The new WWTP will include energy recovery using the biogas, which will reduce the electricity consumption with savings of more than 5 GWh/year.

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

The appraisal of the proposed investment project has identified a number of potential positive social impacts:

- Improved quality of life of local communities across the whole Project Area due to less pollution to Paute River;
- Since the operation of the new WWTP-G will allow the future full rehabilitation of the existing WWTP-U, currently under septic conditions, there will be an improved quality of life of local communities in the area, due to reduced odour emissions;
- Local employment associated to the construction and operation phase.

Negative social impacts are mostly limited to the construction works and include:

- Temporary diversion of traffic and related loss of time.
- Temporary reduced quality of life due to nuisance from the construction site.

The ESIA proposed mitigation measures for all the aforementioned impacts. Special attention shall be paid to the stakeholder engagement, managing construction activities as well as supervision of construction works.

The site of the WWTP-G is inhabited and surrounded by the road Panamericana norte and Highway Panamericana. The ownership of the site belongs to ETAPA since 2016 and the only construction in the site are the offices from Promoter for developing the previous Master Plans. These offices will be used as office for the construction. No displacements will be needed and no indigenous people will be affected by the project.

Public Consultation and Stakeholder Engagement

The ESIA followed the necessary public consultations in 2016 and 2017 as required by national legislation. The Promoter ETAPA EP has in place a system of Environmental and Social Management, and within the system, there is a specific area for Social Management.

Luxembourg, 9 April 2019

The promoter, supported by the consultant recruited for the supervision of the works, is expected to have the capacity to manage environmental and social related risks/ impacts identified in the ESIA and ESMP.

Conclusions and Recommendations

By reducing pollution of the receiving waters, the project will have a positive impact on the environment and contribute to the improvement of living conditions of the inhabitants of Cuenca. The project will also provide long-term socio-economic benefits to the local population in the form of employment opportunities and improved quality of life.

Taking into consideration the undertaking below, the project is acceptable for EIB financing in environmental and social terms.

- The Promoter shall ensure that the Implementation of the Project complies with the Environmental and Social Management Plan included in the Environmental and Social Impact Assessment.

PJ/SQM/ECSO 14.12.18