

## Environmental and Social Data Sheet

### Overview

Project Name:	TECHNICAL AND TECHNOLOGICAL INSTITUTES PROGRAMME
Project Number:	2014-0610
Country:	Ecuador
Project Description:	The project concerns the new construction, extension, rehabilitation and equipment of 21 Technical and Technological Institutes (TTIs), classified at the post-secondary level of education.
EIA required:	Multi-scheme operation with sub-projects of small size; EIAs may be required
Project included in Carbon Footprint Exercise <sup>1</sup> :	no

### Environmental and Social Assessment

#### Environmental Assessment

Although not defined in detail, the actual project concerns the new construction, extension, or rehabilitation and seismic strengthening of 21 individual technical technological institutes (TTIs) and related educational buildings (such as workshops and laboratories). Within the EU, such facilities are not specifically mentioned in the EIA Directive 2011/92/EU as amended by Directive 2014/52/EU, though the construction of such buildings is covered by the Annex II of the Directive in relation to urban development and therefore it is for the competent authority to screen the projects and determine whether a full EIA is required or not.

By the technical nature of the civil works required under the sub- projects, no significant or irreversible environmental impacts and risks to the natural environment in its direct footprint and the area of influence is foreseen. The installation of certain types of equipment in workshops and laboratories might generate health, safety, and environmental risks and impacts. However, these impacts are manageable through the implementation of appropriate environmental and social management plans (ESMPs) covering construction and operations phases. On the basis of the preliminary list of TTIs to be constructed under this operation, the project is not expected to affect natural habitats or areas of biodiversity importance.

Since not all locations are currently known, an Environmental and Management Framework (ESMF)<sup>2</sup> has been developed for this Project (April 2016) by the Ministry of Higher Education, Science, Technology and Innovation (SENESCYT). The ESMF covers both civil works related to the buildings and the operation of the associated facilities (i.e. workshops, laboratories, equipment, etc.). Consultations have been carried out in the preparation of the ESMF. An Environmental Form (EF) and related ESMP will be prepared for each TTI.

#### Cultural Heritage

<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.

<sup>2</sup> Marco de Gestión Ambiental y Social

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Ecuador is a rich country in terms of archaeological remains especially from the Pre-Columbian times. The EF and ESMP of the project should describe procedures to be undertaken in case of chance findings during the implementation phase. The ESMF describes the national procedures in place in case of chance findings, which will be part of the bidding documents and works contracts to ensure appropriate handling by contractors.

#### Seismic design

The adequacy of the para-seismic design of the modules has been verified by the lenders: the World Bank and the EIB. It is confirmed that the design methodology integrates the Eurocode 8 principles. The applicable national law is the “Acuerdo Ministerial número 0047 del 10 de enero de 2015, publicado en el Registro Oficial N°413” including the “Norma Ecuatoriana de la Construcción, NEC”.

As a result of the technical reviews of the architectural standards, it has been suggested that the construction method using beams and columns originally planned with reinforced concrete could be replaced by a steel structure to reduce the construction time. This suggestion was accepted by the promoter and the designs were updated accordingly, also ensuring compliance with national and international construction standards. An additional resistance coefficient ( $R=1.5$ ) has been applied, which means that the buildings can be used as a refuge in case of an emergency.

Four technical institutes representing 15% of the investment cost are located in the area affected by the recent earthquake in Ecuador (16 April 2016).<sup>3</sup> Two of those three were already planned in that area but one was accelerated to respond to urgent needs.

#### Heating, ventilation and lightning

Furthermore the new and rehabilitated buildings will be designed in line with actual standard in respect to insulation and technical installations. Most of the buildings will not be heated and none will be cooled. Where feasible the technical institutes will rely on heat pumps and hybrid systems with solar panels, electricity or heating based on biomass.

Out of all the sites earmarked for new construction only one plot of land has been purchased. Except the purchased plot, all sites were owned by local public authorities who donated them to SENESCYT.

### **Social Assessment, where applicable**

The proposed Project is expected to contribute to socio-economic development of Ecuador by improving access to and retention in tertiary education. The programme has been designed in order to promote inclusion of students in disadvantaged areas (including of Afro-descent and indigenous communities), and ensuring equal opportunities for women and disabled people. A scholarship programme financed by the government will be put in place to facilitate access to students from deprived households.

#### Involuntary Resettlement

Land acquisition may be necessary for some of the institutes though this may be very limited as the identified sites are owned by local public authorities and donated to SENESCYT. Plots identified to date are not inhabited, nor serve an economic function. Only in those localities where it is not feasible to obtain land through a donation, the Promoter will resort to the

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<sup>3</sup> The 2016 Ecuador earthquake occurred on April 16 at 18:58:37 ECT with a moment magnitude of 7.8 and a maximum Mercalli intensity of VIII (Severe). The very large thrust earthquake was centered approximately 29 km from the towns of Muisne and Pedernales in a sparsely populated part of the country, and 170 km from the capital Quito, where it was felt strongly. Regions of Manta, Pedernales and Portoviejo accounted for over 75 percent of total casualties. Manta's central commercial shopping district Tarqui was completely destroyed. Widespread damage was caused across Manabí province, with structures hundreds of kilometers from the epicenter collapsing. At least 661 people were killed and 27,732 people injured.

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acquisition through a declaration of public interest. In these cases, potential temporary and permanent impacts on land, assets and livelihoods may take place. A Resettlement Policy Framework (RPF) has been prepared (July 2016) describing the resettlement principles, organisational arrangements, and screening and design criteria to be applied to subprojects requiring land acquisition. It also serves as a guide for the preparation of individual Resettlement Action Plans (RAPs). When such a RAP would be required, the Promoter will need to comply with the principles of the RPF and the lenders standards.

#### Vulnerable Groups and Indigenous Peoples

According to the Social Assessment (SA) of April 2016 seven TTIs will be developed in territories characterised by the presence of indigenous communities and/or people of afro-descent: Ambato, Chimbo, Lago Agrio, Riobamba, Sucua, El Panguí and Atacames.

An Indigenous Peoples Management Framework (IPMF) has been prepared (July 2016)<sup>4</sup> establishing the general measures to be taken to ensure that (i) individual projects are supported by the affected communities, (ii) negative impacts are mitigated or avoided and (iii) actions are culturally appropriate. Detailed Indigenous Peoples Development Plans (IPDPs)<sup>5</sup> are being developed with support from the Agency of Coordination of Ancestral Knowledge (Coordinación de Saberes Ancestrales) of the SENESCYT. These IPDPs indicate the key concerns of the communities, the actions to be undertaken to tackle these concerns and the indicators to monitor improvement. The implementation of the plans will be monitored by SENESCYT semi-annually. IPDPs for Ambato, Chimbo and Lago Agrio have been prepared.

In addition, Social Management Plans (SMP) have been prepared for the regions of Manabí, Pichincha, El Oro and Guayas (projects involving the merger of several TTIs) in order to help in the decision of the location of the TTI and manage impacts on students and staff.

Furthermore, the programme has been planned taking into consideration gender aspects in order to ensure equal opportunities for women and to promote their access to tertiary technological education. A Gender Plan has been developed (July 2016)<sup>6</sup> for the programme in order to understand and improve processes related to access, drop-out and completion of tertiary studies for men and women. This plan will translate into concrete actions to achieve real social inclusion based on the diverse realities and needs differentiated by gender.

Regarding disabled people, buildings have been designed guaranteeing full accessibility to people with mobility impairment.

#### Labour standards

Ecuador has ratified all 8 International Labour Organisation (ILO) fundamental conventions and significant improvements in labour conditions have been implemented through primarily, advances in regulations and legal enforcement. Appropriate labour clauses will be introduced in the tendering documents and later on in contracts with the contractors. Special attention will be given to precluding discrimination against afro-descendants and women, two key concerns of ILO, and to ensuring that national regulations on child labour are rigorously applied to this project (a priority for the national Government and UNICEF).

#### Health and safety standards

As previously indicated, the installation of certain types of equipment in workshops and laboratories might generate health and safety risks and impacts. The individual ESMPs should define adequate management systems and protocols to mitigate these risks and

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<sup>4</sup> Marco de Planificación para Pueblos Indígenas.

<sup>5</sup> Planes de Pueblos Indígenas

<sup>6</sup> Plan de Género.

develop appropriate emergency preparedness plans. Safety trainings for students will be an intrinsic part of the curricula and are expected to contribute to the improvement of hygiene and safety conditions in the industry sector in the future.

### **Public Consultation and Stakeholder Engagement**

The Project foresees a high level of stakeholder engagement and social participation, in compliance with the principles of the Ecuadorian Constitution and best practices from the lenders. The National Government has therefore developed, as part of the ESMF, a social management plan which will ensure that affected communities will be consulted and engaged in the Project. To this end the ESMF requires that the EFs and the IPDPs include stakeholder engagement mechanisms that are adequate to the socio-economic and cultural conditions of the locality. A Grievance Mechanism has been put in place.

Stakeholder activities will include:

- Public consultation and information meetings with the community, aiming at receiving comments and observations to be integrated in the design, EFs and ESMPs of each TTI, as well as clarifying information and answering questions about the subcomponents.
- Publication of information through the SENESCYT website. An email account has been also created to request information or make a formal complaint<sup>7</sup>.
- Printing of informative brochures, to be sent to key stakeholders (e.g. civil society organisations, representatives of indigenous and afro-descent communities) to promote dissemination of information among people without internet access.

#### Stakeholder engagement with Indigenous and afro descent communities

Given that some of the sub-projects are located in communities with a relatively high concentration of indigenous peoples, the concerned TTIs will need to follow a Free Prior Informed Consent (FPIC) process as defined by the ILO Convention 169 and the UN Declaration on the Rights of Indigenous Peoples. Stakeholder engagement activities should be carried out in local indigenous language.

During the consultation of the aforementioned IPDF and IPDPs, the Indigenous and Afro-descent peoples raised concerns regarding four key points:

- Access: a significant number of young people in these communities do not approve the state examinations for admission to higher education so that the indigenous and afro descent communities will scarcely benefit from the project;
- Mobility: there is no adequate public transport from many rural areas where these communities live; and in some areas the indigenous communities would need long commuting hours to access the TTIs (up to 4h per way);
- Language: the lack of bilingual teachers, which limits understanding of certain indigenous minorities that are not fluent Spanish speakers;
- Cultural Relevance: The careers offered by the TTIs do not take into consideration the ancestral knowledge and cultural values of the indigenous and afro descent peoples. Moreover, the curricula do not fully tackle the production activities typically undertaken by these communities.

Measures have been foreseen to address these concerns in the IPDPs, including organisation of complementary courses to support indigenous and afro descent students during the preparation of the national exams; review of the curricula and mobility strategies to ease transport to and from the TTIs.

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<sup>7</sup> Queries and complaints can be sent to: [sugerencias-institutos@senescyt.gob.ec](mailto:sugerencias-institutos@senescyt.gob.ec)

## Conclusions and Recommendations

The Project, through the national and local government has a well-established system for managing and monitoring the environmental and social impacts of the project during construction and operations. This system will be strengthened through the WB Project “Supporting Education Reform in Targeted Circuits”.

The project provides updated and modern education facilities which will allow improved hygiene and safety conditions and better educational standards.

The Promoter will ensure that the project is implemented in compliance with the EIB’s environmental and social standards, ILO labour standards and with the ESMF, SA, Gender, Plan, RPF, IPDF and existing IPDPs and SMPs. The relevant EFs, ESMPs, IPDPs, SMPs and RAPs as required will be developed and submitted to the satisfaction of the Bank in accordance with the disbursement conditions and undertakings that will be included in the finance contract.

With the above-mentioned conditions in place and the adequate capacity of the promoter to implement the Project, the Project is acceptable for financing in environmental and social terms.