

Environmental Risks and Impacts and Proposed Mitigation and Compensation Measures

1.1 Assessment and Management of Environmental and Social Risks and Impacts

1.1.a. E&S Assessment and Management System

The Co-Borrowers will develop a specific Environmental and Social Management System (“ESMS”) for the operational phase of this Project, to include: (i) policies (see section 1.1.b); (ii) internal procedures for the Co-Borrower’s compliance with the Environmental and Social Management Plan (“ESMP”); (iii) procedures for identifying, evaluating and managing the potential environmental, social, occupational health and safety, and labor risks and impacts, associated with each activity of the project and for any contractors and sub-contractors; (iv) organization and assignment of responsibilities for implementation of this ESMS; (v) training; and (vi) periodic audits and inspections with respect to Environmental, Social, and Health and Safety (“ESHS”) requirements, applicable by law (ESAP [Action 1.1](#)).

1.1.b. Policy

The Co-Borrowers will develop an Environmental, Social, and Health and Safety (“ESHS”) overarching policy that indicates who, within the Co-Borrower’s organization, will ensure conformance with the policy and be responsible for its execution, and create a mechanism to communicate the policy to all levels of its organization and measure continuous improvement in its implementation (ESAP [Action 1.2](#)).

1.1.c. Management Programs

According to the Environmental License of the Avenida Escazú Complex, Resolution No. 821-2004-SETENA, there is an Environmental and Social Management Plan (“ESMP”) with mitigation and compensation measures to address each environmental impact, negative and positive, of greater importance. However, the Borrower will provide, additional information for the operational phase, which included the development of the following, site specific, management programs (ESAP [Action 1.3](#)): (i) an Environmental Surveillance Program (see Section 1.1.f), (ii) an Integral Solid Waste Management Program (which will emphasize in measures to reduce, reuse and recycle those inert materials such as metal, paper, plastic, etc., and also provide special measures to the hazardous waste, like oil, grease, paint/solvents, etc., especially from the laboratories and cooking kitchens, in accordance to local environmental and sanitary laws and regulations, especially those from the municipality¹); and (iii) a Health and Safety Management Program (see Section 1.2.b). The management programs will define desired outcomes and actions to address the issues raised in the risks and impacts identification process, as measurable events to the extent possible, with elements such as performance indicators, targets, or acceptance criteria that can be tracked over defined time periods, and with estimates of the resources and responsibilities for implementation.

1.1.d. Organizational Capacity and Competency

The Co-Borrowers have a technical and management team based in the Project area. However, a dedicated environmental and social unit shall be created for the Project, and it will be responsible for planning, implementing and monitoring all the required environment, social and health & safety related actions. Therefore, the Co-Borrowers will structure this unit to ensure adequate human and financial resources, within the ESMS (ESAP [Action 1.1](#)), and appoint and maintain for the Project, throughout operation, a qualified on-site Environmental Manager (Sustainable Manager) and an Occupational

¹ According to the Regulation on the Management of Ordinary Solid Waste (Executive Decree No. 36093 of 2010), the separation and classification of ordinary solid waste has to be in accordance with the provisions of municipal regulations.

Health and Safety (OHS) Manager, to report directly to their correspondent Manager/Director, with independent reporting lines to Corporate Management/General Direction (ESAP [Action 1.4](#)).

1.1.e. Emergency Preparedness and Response

It is understood that these Emergency Preparedness and Response (EPR) Plans for the Project, are currently in place (several emergency preparedness measures were observed during site visit). However, the Co-Borrowers should develop a detailed and site specific EPR Plan or Contingency Plan, with a set of specific pre-established procedures for coordination, alert, mobilization and response to the occurrence or imminence of a particular event, such as: (i) natural hazards as for earthquakes, hurricanes and/or tropical storms, flooding and storm surge, electric storms, etc.; and (ii) technological danger as for fire, oil or fuel spills (mainly in the laboratories), and workers and students/guest accidents². Therefore, the Co-Borrowers will commission an updated, detailed and site specific EPR Plan (Contingency Plan), to minimize risk to employees and students/guests in the case of natural disasters or technological danger, with the contact information of the appropriate and relevant collaborative third parties (ESAP [Action 1.5](#)). This ERP Plan will address the following aspects: (i) specific emergency response procedures; (ii) trained emergency response teams; (iii) emergency contacts and communication systems/protocols; (iv) procedures for interaction with local and regional emergency and health authorities; (v) permanently stationed emergency equipment and facilities (e.g., first aid stations, fire extinguishers/hoses, sprinkler systems); (vi) protocols for fire truck, ambulance, and other emergency vehicle services; (vii) evacuation routes and meeting points; (viii) training exercises like annual drills, simulations or actual events, or more frequently as necessary, in which the Borrower should include nearby residential and commercial properties and other stakeholders, to familiarize them with proper procedures in the event of an emergency.

1.1.f. Monitoring and Review

The Co-Borrowers are responsible to ensure the implementation of the monitoring and control plans described in the Project's original ESMP and complemented through the Environmental Surveillance Program (ESP). The ESMP and/or ESP for this Project, includes a series of monitoring measures, both for the construction and operations phase. However, the Borrower will develop a set of key performance indicators to be monitored to measure the effectiveness of the ESMP and ESP, as well as all the applicable legal and contractual obligations during the operations phases (ESAP [Action 1.6](#)). Finally, an Independent Environmental and Social Consultant (IESC) is required to periodically prepare a consolidated report addressing the compliance status of all environmental, social, health, safety and labor policies (ESAP [Action 1.7](#)).

1.1.g. External Communication and Grievance Mechanisms

As mentioned above, although the Co-Borrowers have consulted regularly with the community within the Project's influence areas, an internal and external communications and grievance mechanism should be in place. As per the IDB Invest's requirements, the Co-Borrowers are required to document both internal and external communications detailing how information is received from their employees/academic personnel/students and/or the public in general, how the issues are assessed, how responses are provided and tracked and any adjustments to the management program. Therefore, the Co-Borrowers should provide the following:

- Provide: (i) copies of the Internal Grievance Mechanism (for direct employees, academic personnel and students) and the External Grievance Mechanism (communities and/or owners within the indirect area of influence, with potential impact or interest) for during operation; and (ii) copies of the evidences of its implementation. This grievance mechanism should include

² As stated in paragraph 2 above natural disasters such as earthquakes, fires, floods and electric storms might pose very limited risks to both projects.

details of how these complaints are recorded, investigated / evaluated and the follow-up and closure / resolution process (ESAP [Action 1.8](#)).

1.2 Labor and Working Conditions

1.2.a. Working Conditions and Management of Worker Relationships

1.2.a.i Human Resources Policies and Procedures

The Co-Borrowers will develop a Human Resource (HR) Policy and associated procedures for the Project. The HR Policy and its procedures will include, inter alia, promotion of gender equality and non-discrimination, equal opportunities, fair treatment, adequate working conditions and terms of employment agreements, notice of dismissal and severance payments, as well as a Code of Conduct (or Ethics Code) for the Co-Borrowers' employees (ESAP [Action 2.1](#)). The Co-Borrowers will ensure that its contractors and sub-contractors also abide by its HR Policy and procedures in accordance to IFC Performance Standard 02 (ESAP [Action 2.2](#)).

1.2.a.i Working Conditions and Terms of Employment

The Co-Borrowers will provide: a) The procedures adopted for contractors/suppliers for the hiring and firing of workers (ESAP [Action 2.2](#)); b) A reasonable working conditions and terms of employment agreement for employees (ESAP [Action 2.3](#)); and, c) A coexistence manual (rulebook) for employees, contractors/suppliers and sub-contractors (ESAP [Action 2.4](#)).

1.2.b. Occupational Health and Safety

The Co-Borrowers will update the EMP to include a Health and Safety Management Plan, that attends: (i) the identification of possible risks to the occupational health and safety of the workers according to the job that they do; (ii) details of the preventative and protective measures implemented, worker trainings, and daily safety briefings mentioned during the site visit and (iii) a copy of the reports developed in the event of an incident or occupational accident. The EMP will also contain a procedure to notify emergency response services and local law enforcement about any major accident or fatality (ESAP [Action 2.5](#)). Also, this mechanism shall provide a procedure to notify, emergency response entities, local law enforcement, and IDB Invest, about any major accident or fatality (ESAP [Action 2.6](#)).

1.2.c. Supply Chain

The Co-Borrowers will develop a procedure for managing and monitoring the performance of its primary suppliers as well as for workers engaged by third parties (ESAP [Action 2.7](#)).

2. Environmental and Social Action Plan (*In tabular format*)

The Environmental and Social Action Plan (ESAP), is summarized in [Annex 01](#).