

1 Overview and Scope of IDB Invest's Environmental and Social Review

This Project represents an initiative of the Government of the Republic of Panama through the Ministry of Education (MEDUCA, for its Spanish acronym), to eradicate 189 *aulas rancho* located mainly in the most secluded and poverty-stricken areas nationwide. The MEDUCA, through a public tender process, awarded 10 construction contracts to the contractor A&A Arroyo y Asociados ("A&A") for the design, demolition, remodeling and construction of 28 rural schools located in vulnerable and difficult to access regions of the Ngäbe-Buglé district (15 of the 28 schools, 54%) and the provinces of Bocas del Toro and Coclé (the remaining 13 schools, 46%). Once A&A has finalized its contract and delivered the new or refurbished schools or learning centers, the preventive and corrective maintenance of these schools will be entrusted to the National Direction of Engineering and Architecture of the MEDUCA, which has the technical—both in trained personnel and in procedures/guidelines/technical guides (it has the School Infrastructure Maintenance Manual)—and financial (mainly through budgetary allocations and the Fund for Equity and Quality of Education – FECE, for its Spanish acronym) capacity for such purpose.

The scope of IDB Invest's environmental and social review included the analysis of the Project's environmental and construction permits, meetings and conference calls with representatives of the sponsor (mainly Grupo HMG Investment Corporation & Affiliates and A&A Arroyo y Asociados). In addition, on January 16-17, 2019, IDB Invest's environmental and social specialists conducted an environmental and social due diligence (ESDD) visit in Panama's Ciriquí Province and Ngäbe-Buglé district, which included the following activities: (i) meeting with A&A's management and planning personnel, as well as those responsible for environmental, safety and security, and health and hygiene issues and construction permits; (ii) a visit to the school grounds where the construction/remodeling will take place, and their surrounding area of influence; and (iii) a meeting with the Ministry of Education (MEDUCA) personnel in charge of the *Aulas Rancho* Eradication Program and the National Direction of Engineering and Architecture. At the end of this ESDD visit, we continued with the review of documents associated with manuals, procedures, and progress reports, among others.

2 Environmental and Social Categorization and Rationale

This is a **Category B** Project, in accordance with IDB Invest's Environmental and Social Sustainability Policy, since it is expected that, in general, its environmental and social (E&S) impacts and risks will be reversible and can be mitigated using measures available with current technologies. During each school's construction, expansion and/or refurbishment phase, the possible environmental and social impacts and risks will be: (i) generation of hazardous and non-hazardous waste; (ii) emission of pollutants into the atmosphere (mainly combustion gases from construction machinery and equipment); (iii) wastewater generation; (iv) noise pollution; (v) earthworks; (vi) removal of secondary vegetation (mainly grasses and weeds); (vii) soil vibrations; (viii) occupational safety and health risks to workers; and (ix) community health, safety, and security concerns related to increased vehicular traffic.

Due to this Project's contractual conditions (see Section **Error! Reference source not found.**), the impacts of each school's operation and maintenance ("O&M") will be the responsibility of the MEDUCA's National Directorate of Engineering and Architecture; therefore, they will not be considered in the ESDD analysis. However, the ESDD verified that this entity has the technical—both in trained personnel and in procedures/guidelines/technical guides (it has the School Infrastructure Maintenance Manual)—and financial (mainly through budgetary allocations and the Fund for Equity and Quality of Education - FECE) capacity for such purpose.

Natural disasters, such as earthquakes, fires, floods and hurricanes, do not pose a significant risk to the schools, neither from damage to physical infrastructure nor from possible loss of classroom time.

Based on the ESDD visit, the execution of this Project is expected to impact the following International Finance Corporation (IFC) Performance Standards (PS)¹:

- PS-1: Evaluation and Management of Environmental and Social Risks and Impacts
- PS-2: Labor and Working conditions
- PS-4: Community Health, Safety and Security
- PS-7: Indigenous Peoples

The application of PS-3, Resource Efficiency and Pollution Prevention, is not foreseen, since the Project's construction stage considers the rational use of water and other resources; likewise, this Project will not produce more than 25 thousand tons of CO₂ per year or significant water consumption and/or generate significant adverse impacts on third parties. The application of PS-5, Land Acquisition and Involuntary Resettlement, is also not envisaged, as each school considered in the Project will be developed within its own lands or those transferred to the MEDUCA. The application of PS-6, Biodiversity Conservation and Sustainable Management of Living Natural Resources, is not foreseen, because the Project will be developed in rural, previously disturbed lands that are already in use, with regenerative vegetation (pastures and weeds) of little ecological value; PS-8, Cultural Heritage, also fails to apply, because, as mentioned, these are owned, previously disturbed lands that are currently in use.

3 Environmental and Social Context

As mentioned, this Project focuses on the State Program initiative "*Erradicación de Escuela Rancho*" (Eradication of Escuelas Rancho) in difficult-to-access areas, headed by the MEDUCA, promoting the construction of new concrete facilities and the replacement and/or refurbishment of existing facilities to ensure safe educational facilities. Consistent with the foregoing and in compliance with Panama's General Environmental Law 41² and its Regulations³, all new construction and/or expansion or refurbishing works require submitting an Environmental Impact Study (EIS) or the adoption of the Guide to Good Environmental Practices (GBPA, for its acronym in Spanish), through which the Ministry of the Environment⁴ (MiAmbiente) would grant the approval resolution, in the case of the EIS. In this sense, the 28 schools that comprise this Project have their approval resolution or have adopted the GBPA for their execution.

The environmental context is limited to the grounds of each school or educational center; i.e., the construction of new works will be concentrated within the previously disturbed and delimited areas of each school, which are fenced off or protected with a perimeter screen. Aside from the existing structures in these school grounds, the rest of the area is covered in grass or couch grass, with a few scattered trees, which, for the most part, would remain, although some would be cut/pruned—having obtained the appropriate municipal permit—in order to build the new works.

The socioeconomic conditions in the vicinity of these schools are mainly those of rural communities dedicated to subsistence agriculture (for own consumption, while surpluses are sold in retail) and/or extensive livestock farming. Sometimes, students travel distances of more than 5 km to attend these schools.

¹ International Financial Corporation (IFC), of the World Bank Group.

² Official Gazette No. 28131-A of October 4, 2016, on Law 41 of July 1, 1998, General Law on the Environment of the Republic of Panama, which includes the reforms approved by Law 18 of 2003, Law 44 of 2006, Law 65 of 2010 and Law 8 of 2015.

³ Executive Decree No. 123 of August 14, 2009, which regulates Chapter II of Title IV of Law 41 of July 1, 1998, General Law on the Environment of the Republic of PANAMA and which repeals Executive Decree 209 of September 5, 2006; Executive Decree No. 155 of August 5, 2011, modifying Executive Decree No. 123 of August 14, 2009;

⁴ Law 8 of March 25, 2015, which creates the Ministry of Environment, modifies provisions of the Aquatic Resources Authority of Panama and issues other provisions.

Finally, all Project contracts that include new construction works consider the improvement of the sanitary systems, eliminating latrines and building bathrooms and septic systems that comply with Panama's hygienic and health regulations.⁵

4 Environmental Risks and Impacts and Proposed Mitigation and Compensation Measures

4.1 Assessment and Management of Environmental and Social Risks and Impacts

4.1.a Environmental and Social Management System

Based on the analysis of the information provided, in order to comply with PS-1, A&A should develop an Environmental and Social Management System (ESMS) specific to the construction stage of this Project, which includes: (i) policies (see Section **Error! Reference source not found.**); (ii) in-house procedures to identify, assess and manage the potential environmental, social, occupational health and safety (OHS) and occupational risks and impacts associated with each Project activity, as well as for its contractors and subcontractors; (iii) internal procedures for compliance with the Environmental and Social Management Plan (ESMP); (iv) organizational capacity and competence, with definition of roles and assignment of responsibilities for the implementation of this SMS; (v) emergency preparedness and response protocols (see Section **Error! Reference source not found.**); (vi) methods or plans for the participation of key stakeholders (see Section **Error! Reference source not found.**); (vii) external communication and grievance reception mechanisms (see Section **Error! Reference source not found.**); (ix) protocols for the dissemination of information to communities, and regarding decision-making and training; (x) protocols for the evaluation and continuous improvement of the SMS; and (xi) periodic audits and inspections with regard to applicable environmental and social requirements under the General Law on the Environment, Law 41⁶ and its Regulations⁷, as well as labor and occupational health and safety (OHS) regulations in Panama ([Action 1.1](#) of the ESAP⁸).

4.1.b Policies

A&A has a policy and guidelines on safety, security, health and hygiene, included in its Safety, Security, Health and Hygiene Plan's Management System. However, to comply with PS-1, A&A will develop an environmental and social policy that indicates: (i) who, within its organization, will ensure compliance with this policy and will be responsible for its execution, (ii) how this policy will be monitored and communicated to all levels of its organization; (iii) the creation of a mechanism to measure continuous improvement, both in the implementation of the environmental and social policy and in matters of safety, security, health and hygiene ([Action 1.2](#) of the ESAP).

4.1.c Identification of Risks and Impacts

Any new construction, expansion and/or refurbishment work, especially the construction of the new classrooms, in addition to verifying compliance with environmental impact regulations, shall identify and assess environmental and social risks and impacts. Based on the foregoing, and in compliance with the General Law on the Environment (Law 41) and its Regulations, the MEDUCA prepared and submitted to the Ministry of Environment⁹ (MiAmbiente), for each school in the Project, an Environmental Impact Study

⁵ Law 66 of November 10, 1947, Sanitary Code of the Republic of Panama and its amendments.

⁶ Official Gazette No. 28131-A of October 4, 2016, on Law 41 of July 1, 1998, General Law on the Environment of the Republic of Panama, which includes the reforms approved by Law 18 of 2003, Law 44 of 2006, Law 65 of 2010 and Law 8 of 2015.

⁷ Executive Decree No. 123 of August 14, 2009, which regulates Chapter II of Title IV of Law 41 of July 1, 1998, General Law on the Environment of the Republic of PANAMA and which repeals Executive Decree 209 of September 5, 2006; Executive Decree No. 155 of August 5, 2011, modifying Executive Decree No. 123 of August 14, 2009;

⁸ Environmental and Social Action Plan (ESAP); see Section **Error! Reference source not found.**

⁹ Law 8 of March 25, 2015, which creates the Ministry of Environment, modifies provisions of the Aquatic Resources Authority of Panama and issues other provisions.

("EIS") or a Statement of Adoption of the Guide to Good Environmental Practices (GEP), as appropriate. In conclusion, for the overall Project, no critical impacts are anticipated in the construction phase and all impacts will be mitigated/compensated within the Environmental and Social Management Plan ("ESMP", see Section **Error! Reference source not found.**). Rather, the execution of the works is considered positive from the point of view of temporary and permanent job creation, the refurbishment of water supply and sanitation infrastructure, and the regional (services) economic revitalization of local communities.

However, given the dynamic execution and operation of the Project, A&A, fulfilling PS-1, will continuously update the environmental, social and OHS risk matrix of the Project Design and Construction stages for each of the schools, in order to obtain, monitor and control the required permits or licenses for each stage (see Section **Error! Reference source not found.**).

4.1.d Management Program

According to the information provided, the Environmental and Social Management Plan ("ESMP") is set out in Chapter 10 of each school's EIS and its approval resolutions. Within this ESMP, there are specific mitigation and control measures for air, noise, soil, water resources, vegetation and fauna, economic, social and OHS protection.

Likewise, to complement the ESMP, A&A developed the following programs/plans: (i) Works Communication Plan; (ii) Plan for the Management of Waste Generated in the Projects (Educational Centers); (iii) Emergency and Contingency Plan for each School or Educational Center (see Section **Error! Reference source not found.**); and (iv) Safety, Security, Health and Hygiene Plan, identical for each School or Educational Center (see Section **Error! Reference source not found.**).

4.1.e Organizational Capacity and Competence

In compliance with labor¹⁰ and OHS¹¹ legislation, A&A has an Occupational Health, Hygiene, Safety and Security Committee in Panama, as well as a person in charge the Project's OHS. However, to comply with PS-1, CH shall designate a person responsible for environmental and social issues within its organizational structure; in addition to defining the functions, responsibilities and faculties of such person for environmental and social matters, in order to implement the SMS. Likewise, an introductory and refresher training program will be required at least once a year for all personnel responsible for the environment and occupational health and safety.

In this sense, the person in charge of environmental and social issues will be responsible for planning, implementing and monitoring all the required environmental and social actions. Therefore, A&A will structure such position so as to guarantee suitable human and financial resources within the SMS and will appoint and maintain an Environment or Sustainability Officer (or a similar position), who, together with the person in charge of OHS, shall report directly to the Manager/Director of each Project on the environmental, social and OHS performance of the construction, expansion and/or refurbishment of each of the schools and their ancillary facilities, but with independent reporting lines to the General Management of A&A ([Action 1.3](#) of the ESAP).

4.1.f Emergency Preparedness and Response

A&A has an Emergency and Contingency Plan for each school, which describes the emergency procedures to address natural hazards (thunderstorms or heavy rains, floods and earthquakes) and anthropogenic threats (serious accidents, fire, explosions, hazardous substance spills). However, during its review it was noted

¹⁰ Cabinet Decree No. 252, Labor Code (December 30, 1971); amended by Law No. 44 of August 12, 1995.

¹¹ Law No. 6 of January 4, 2008, approving the Convention on Safety and Health in Construction, 1988 (No. 167), carried by the General Conference of the International Labour Organization (ILO) on June 20, 1989; Executive Decree No. 2 of February 15, 2008, by which Safety, Health and Hygiene in the Construction Industry is Regulated; Law No. 67 of October 30, 2015, which adopts Measures to Reduce the Incidence of Occupational Accidents in the Construction Industry.

that in order to comply with PS-1, this Emergency and Contingency Plan should be strengthened with: (i) procedures for interacting with local and regional emergency and health authorities; (ii) protocols for firefighters, ambulances and other external emergency vehicle services, understanding the travel times to the emergency site; (iii) evacuation route drawings and meeting points for each School and for each of the facilities/buildings/classrooms comprising the Project; (iv) training exercises such as annual drills, or more frequently if necessary, or actual events in which A&A should include other key stakeholders to familiarize them with the appropriate procedures in the event of an emergency ([Action 1.4](#) of the ESAP).

4.1.g Monitoring and Evaluation

A&A is responsible for ensuring the implementation of the follow-up, monitoring and control plans described in the Project ESMP (see Section **Error! Reference source not found.**). In this sense, A&A will develop a compliance matrix with its set of key performance indicators to measure the effectiveness of the ESMP and compliance with all legal and contractual obligations of the Project, in which the status/validity of all Permits and/or Licenses required for the execution of the Project during its construction phase will be reviewed/updated periodically (at most once a year) ([Action 1.5](#) of the ESAP). This compliance matrix should include: (i) the competent Authority granting the authorization or issuing the permit/license; (ii) issue and effective dates; (iii) the person within A&A who is responsible for follow-up/compliance; and (iv) future communication and compliance procedures.

Finally, in compliance with the requirements of PS-1, an Environmental and Social Independent Consultant (ESIC) will periodically prepare a consolidated report on the compliance status of all policies and environmental, social, and OHS policies applicable to the Project, including the progress of SMS actions against established key performance indicators; as well as the compliance status with IDB Invest's Environmental and Social Sustainability Policy, Panama's environmental, social, and safety, security, health and hygiene legislation, and the IFC's Performance Standards ([Action 1.6](#) of the ESAP).

4.1.h Participation of Social Actors

Informed consultation and participation

The participation of social actors is a permanent process that, for this Project, should include: (i) analysis of social actors and planning of their participation; (ii) dissemination of information; (iii) claims/complaints mechanism; and (iv) provision of periodic reports to the community. For this purpose, A&A developed a specific Works Communication Plan for the Project, in order to establish a space for dialog and collaboration, both between the company's work team and with different groups of key external actors (governmental and private organizations and entities, contractors and suppliers, the media, etc.) and the social leaders of the communities within the area of indirect influence of each school. However, to comply with PS-1 and PS-7, this Work Communication Plan shall be updated and consider the following ([Action 1.7](#) of the ESAP): (i) a mechanism to ensure that the representatives of the community represent the opinions of the affected communities; (ii) details on how information is disseminated to the stakeholders, especially in a culturally appropriate manner; and (iii) details on the process of participation among the stakeholder communities and how to access the complaints mechanism (see Section **Error! Reference source not found.**).

Dissemination of information

In compliance with environmental legislation in Panama, due to the fact that this is a Category I EIS, the MEDUCA, through a registered Environmental Consultant, carried out interviews with key actors and conducted opinion surveys during the preparation stage of the EIS. (Article 3 of Executive Decree No. 155 of 2011¹²). Additionally, in compliance with Art. 6 of Executive Decree No. 155 of 2011¹³, a formal

¹² Which modifies Art. 29 of Executive Decree No. 123 of 2009.

¹³ Which modifies Art. 35 of Executive Decree No. 123 of 2009.

consultation was carried out in which, during the assessment of the EIS, an extract of the EIS was published in two media (in this case, in a newspaper with national circulation and the posting and removal of such extract in the Mayor's Office of each school's District) and a timeframe given to receive the participation of the communities directly affected or benefited from the Project. Finally, each approval Resolution of the EISs mentions that, during the public consultation period, no complaints or formal observations were received from the community.

4.1.i External Communication and Grievance Mechanism

As mentioned above, the specific Project Works Communication Plan has been prepared, which proposes submitting periodic reports to the community(ies) within each school's area of influence. However, in order to fulfill the requirements of PS-1, A&A is required to develop and implement an External Complaints Mechanism focused on key stakeholders, including local authorities and communities within the indirect area of influence of the Project, those affected, or those of some interest for the construction phase of the Project.

This external grievance mechanism should include details about: (i) how information is received from key stakeholders and/or the general public; (ii) how these complaints are evaluated; (iii) how responses are provided and followed up, concluding with the closure of the complaint; and (iv) any adjustments or improvements to the ESMS, in terms of communication and information dissemination ([Action 1.8](#) of the ESAP).

4.2 Labor and Working conditions

4.2.a Human Resources Policies and Procedures

According to the information provided, the Project intends to create approximately over 350 direct and indirect jobs during construction, which has a significant social and economic impact on local communities.

In this sense, in order to comply with PS-2, A&A will develop a human resources policy and its procedures, in accordance with the labor laws in Panama¹⁴ ([Action 2.1](#) of the ESAP). Such policy and its procedures will include, among others, the promotion of gender equality and non-discrimination, equal opportunities, fair treatment, an agreement with appropriate terms and conditions of employment, notice of dismissal and compensation for employees. A&A will also set up a mechanism to ensure that its contractors and their subcontractors also comply with this human resources policy and its procedures.

4.2.b Employment Terms and Labor Conditions

A&A hires its personnel through Individual Work Contracts, for a defined time for specific works or phases, consistent with local labor regulations. However, to comply with the requirements of PS-2, it shall develop the following procedures: (i) employment procedures and evidence of their implementation for own workers and those hired by third parties, in which the conditions for hiring and firing are in accordance with the International Labour Organization's ("ILO") regulations adopted voluntarily by Panama's Ministry of Labor¹¹, including, as a minimum, standards to prevent child and forced labor; and (ii) procedures for managing and monitoring the performance of in-house and third-party workers ([Action 2.2](#) of the ESAP). Likewise, a coexistence manual (regulation) will be prepared for employees, contractors and subcontractors ([Action 2.3](#) of the ESAP) as well as an internal complaints mechanism (See Section 0).

¹⁴ Cabinet Decree No. 252, Labor Code (December 30, 1971) and amendments to Law No. 44 of August 12, 1995.

4.2.c Occupational Health, Safety & Security

According to the analysis of the information and in compliance with the legislation on Worker Safety, Security, Health and Hygiene in Panama¹⁵, A&A has an Occupational Health, Safety, Security and Hygiene Study that was prepared specifically for the Project, considering the conditions, activities and overall environment of each school, in order to set out the guidelines and parameters with which the Health, Safety, Security and Hygiene Plan will be implemented in the Project construction/execution phase, for the purpose of ensuring the wellbeing of each of the workers and any visitor or client who enters the work site, thus being able to control risky situations that endanger their physical integrity.

A&A has also developed a Management System for the Safety, Security, Health and Hygiene Plan, which sets out the basic policies and standards for occupational safety and environmental protection, for all personnel working on the Project, as well as for all persons who access the facilities, whether in-house or third parties, suppliers or contractors. This Management System also contains a procedure and mechanism for notifying emergency response agencies and local authorities of fatalities or major accidents; as well as an analysis of the primary cause of the accident and a procedure to ensure the implementation of corrective actions to prevent future accidents.

4.2.d Internal Grievance Mechanism

In accordance with the requirements of PS-2, A&A is required to document the internal communications of its employees, contractors and subcontractors, detailing: (i) how information is received; (ii) how these complaints are evaluated; and (iii) how responses are provided and followed up, concluding with the closing of the complaint. In this sense, A&A will develop and implement an Internal Grievance Mechanism (for direct employees, contractors and subcontractors) for the construction stage of each school. This grievance mechanism should include details of how these complaints or claims are registered, investigated/evaluated, and the respective follow-up and closure/resolution process ([Action 2.4](#) of the ESAP).

4.3 Community Health, Safety and Security

4.3.a Community Health, Safety and Security Requirements

The Project's new schoolrooms will be designed and built by a competent and recognized contractor, experienced in the construction and operation of this type of works that uses best international practices recommended by the industry, which are expected to comply with the applicable national and international construction and safety guidelines, standards and codes (the contractor will be A&A). It shall also obtain the constructions and operating licenses/permits required for each stage from the competent authorities (Municipality, Fire Brigade, etc.).

However, one aspect that may have a negative impact on the safety of the surrounding communities is the increase in the traffic of cargo vehicles in the surrounding roads during the construction phases. In this sense, consultation with the local traffic authorities is required, in relation to road capacity and traffic, scheduling and road safety measures, such as signaling, speed controls, etc. Therefore, in order to comply with PS-4, A&A will develop a Comprehensive Road Safety Management Plan specific to each school route, which will detail the access and exit routes for the transportation of construction materials, operating schedules and restrictions, and include mitigation measures of possible impacts on the affected communities, especially during the construction phase of the Project ([Action 4.1](#) of the ESAP).

¹⁵ Executive Decree No. 2 - Regulations on Health, Hygiene and Safety in the Construction Industry (February 15, 2008); Resolution No. 45-588 -2011 -J.D. Social Security Fund - General Regulations on the Prevention of Occupational Risks and Occupational Safety and Hygiene (of February 21, 2011); Law No. 66 - Health Code, Chapter II - Industrial Hygiene; Decree No. 68 - Occupational Risks.

4.4 Indigenous Peoples

According to the information provided by the MEDUCA, there are 15 schools (distributed in 5 Contracts) within the Ngäbe-Buglé District, which corresponds to one of the 3 indigenous districts in Panama. Because it is a State Project, where the MEDUCA is the main Promoter and A&A is the Contractor, all management prior to the awarding of the contract with A&A, including the management of the land use and administration permits of the lands where the schools are located, has been through MEDUCA. However, the dissemination and acceptance of the Project—and therefore obtaining the construction permits from the Local Authorities of the Ngäbe-Buglé District (District Authorities)—has been performed by the Contractor A&A (with the support of the MEDUCA).

In this sense, 12 of the 15 schools within the Ngäbe-Buglé District already have their construction permit, which clearly specifies the activities of each Contract and the corresponding payment and tax for such permit. Therefore, to comply with PS-7, A&A shall perform the Project dissemination and acceptance, once the missing construction permit of the 3 schools within the Ngäbe-Buglé District (Contract No. O- 46-2017) is obtained from the Regional Authorities ([Action 7.1](#) of the ESAP). This activity will be reinforced through the Project Communication and Dissemination Plan (see Section **Error! Reference source not found.**), in compliance with PS-1.

4.5 Cultural Heritage

A requirement of the approval Resolutions for each school's EIS is that the Contractor (A&A) will immediately report the discovery of any object of historical or archaeological value to the National Institute of Culture (INAC, for its acronym in Spanish), in order to perform the respective recovery during the construction stage. In this sense, A&A developed a Procedure in the Event of Fortuitous Archaeological Findings, which defines the steps to identify, classify, and, where appropriate, rescue any historical or fortuitous archaeological remains by a qualified specialist, and also instructs immediate notification to the National Directorate of Historical Heritage of the INAC (DNPH-INAC) and the MiAmbiente.