

ENVIRONMENTAL AND SOCIAL STRATEGY (ESS)

AEGEA CORPORATE LOAN November 2014

I. PROJECT SUMMARY

Country:	Brazil
Sector:	Water and Sanitation
Project name:	AEGEA Corporate Loan
Project Number:	BR-L1425
Borrower:	AEGEA Saneamento e Participações S.A.

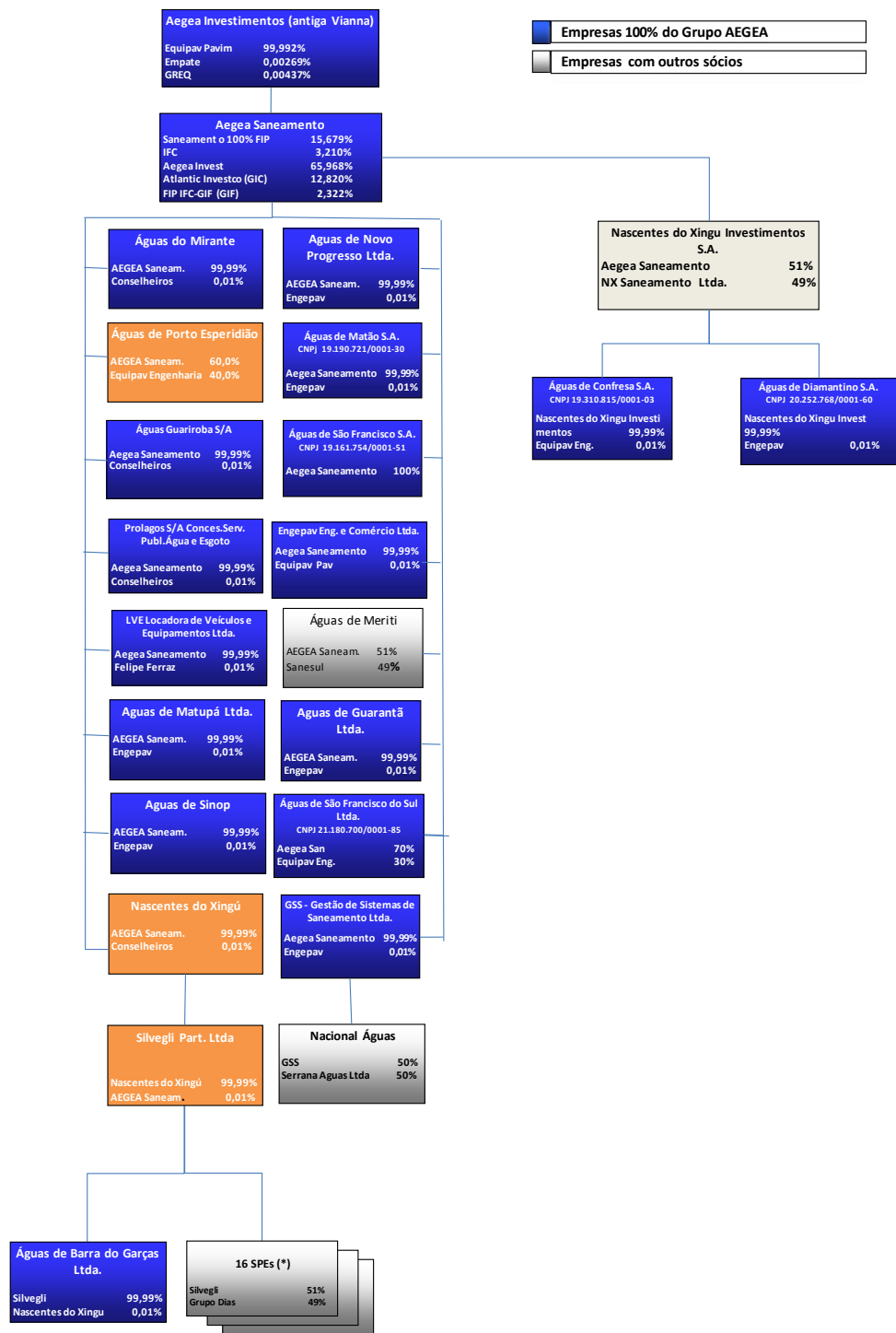
II. PROJECT DESCRIPTION AND ENVIRONMENTAL AND SOCIAL CONTEXT

- 2.1 According to the latest study of water and sewage services conducted by the National Sanitation Information System (SNIS, 2011), 82.4% of Brazil's population is supplied with water, 48.1% receives sewage collection services but only 37.5% of it is treated. Average water loss rate is 38.8%, demonstrating the inefficiency of the services. Low coverage levels, on the other hand, demonstrate the enormous customer base still requiring services and the need for significant investments in order to provide universal access. Because responsibility is at the municipal level, cities control the concessions, transforming this fragmented market into opportunities for the private sector. According to the National Plan for Sanitation (PLANSAB), the water sector will require investments of around US\$ 273 billion in structural and readiness measures up to 2033 to achieve the following sanitation government goals: Water coverage rate: 99%, Treatment of collected sewage rate: 93%, Loss rate in the distribution of water: 31%.
- 2.2 PLANSAB also estimated that 59% of these funds will come from federal agencies, while the remaining 41% will come from international organizations, service providers and state and municipal governments in the form of direct investments or support.
- 2.3 AEGEA Saneamento e Participações S.A. ("AEGEA" or the "Company") is seeking a corporate loan from the IDB to fund the Company's capital expenditure program in several of its water and sanitation concessions. IDB's tenor is expected to be up to 10 years, including a grace period of three 3 years. The objective of the Bank is to help expand the Company's impact through the increase of service coverage and loss reduction in its concessions and at the same time strengthen the Company's corporate financial sustainability.
- 2.4 The Company developed a five year plan (2014-2018) to ultimately reach the goal of tripling its current customer base while focusing on cost reduction and a more efficient use of natural resources, both of water and electricity.

A. *The Borrower*

2.5 AEGEA is a Brazilian holding founded in 2010, it is 81.65% owned by the Equipav Group¹, 12.82% by the Government of Singapore Investment Corporation (“GIC”), 3.21% by the International Finance Corporation (“IFC”) and 2.32% by the GIF – Global Infrastructure Fund.

¹ The Equipav Group is a Brazilian group with over 50 years of expertise in the infrastructure and agribusiness sector. Today, present in various segments, such as mining and engineering companies; and has concessions in the area of sanitation, roads and bus terminals, as well as significant participation in the sugar and alcohol sector.



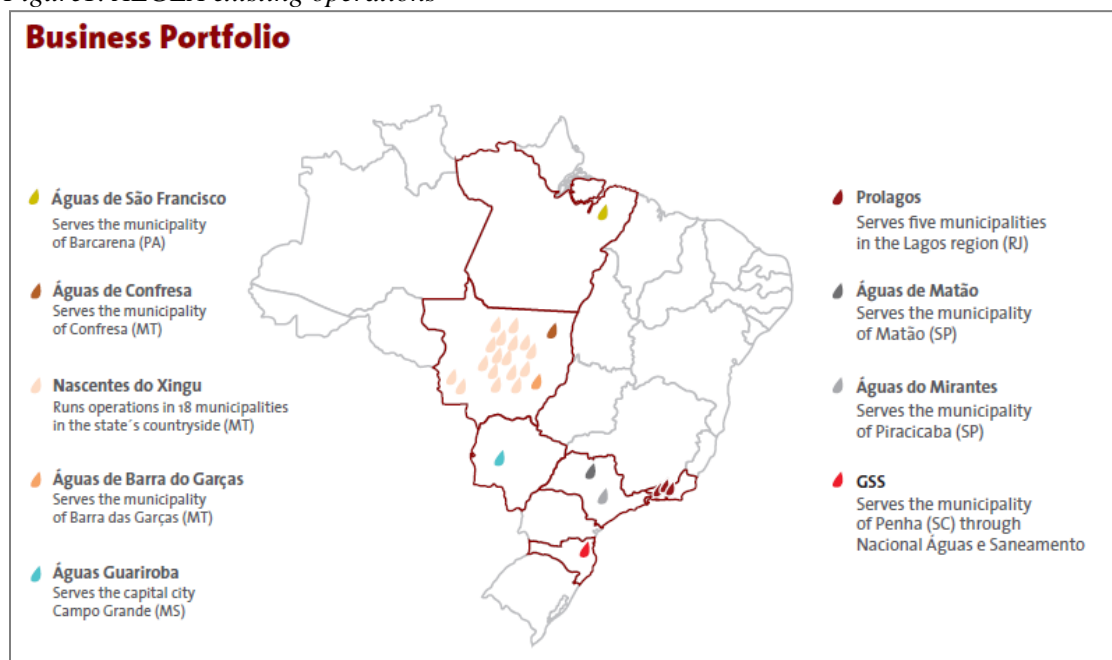
- 16 SPEs:
- | | |
|--|--------------------|
| Águas de Santa Carmem Ltda. | 04.776.975/0001-67 |
| Águas de União do Sul S.A. | 04.352.192/0001-56 |
| Águas de Jaurú Abastecimento e Distribuição S.A. | 15.267.482/0001-18 |
| Saneamento Básico de Pedra Preta S.A. | 06.077.568/0001-97 |
| Águas de São José S.A. | 09.607.725/0001-17 |
| Águas de Sorriso S.A. | 04.002.227/0001-27 |
| Saneamento Básico de Jangada S.A. | 07.005.164/0001-50 |
| Águas de Marcelândia S.A. | 05.849.891/0001-79 |
| Águas de Vera S.A. | 06.200.062/0001-23 |
| Águas de Primavera Ltda. | 04.042.374/0001-20 |
| Águas de Campo Verde Ltda. | 04.830.575/0001-92 |
| Águas de Peixoto de Azevedo S/A | 03.629.871/0001-67 |
| Águas de Poconé S.A. | 10.177.120/0001-12 |
| Águas de Nortelândia Ltda. | 05.009.323/0001-60 |
| Águas de Carlinda S.A. | 06.228.031/0001-80 |
| Águas de Cláudia S.A. | 06.274.758/0001-02 |

2.6 AEGEA manages public concessions, handling the processes related to the life cycle of water, including production, storage, collection and wastewater treatment. As of 2013, the Company covered 16% of the private sanitation market in 29 municipalities within 6 states through its concessionaires, Private Public Partnerships and service companies. While under the control of the Equipav Group, AEGEA has autonomy to act independently to manage all its water and sanitation assets.

B. Site Location

2.7 As of December 2013, AEGEA managed sanitation services in 29 municipalities across six Brazilian states (see Figure 1 below), serving more than 700,000 households. It is headquartered in São Paulo.

Figure 1. AEGEA existing operations



C. The Project

2.8 As part of its growth strategy, AEGEA has defined two operating segments, one for the existing operations and the other for new businesses. The focus of IDB financing will be on the former segment.

2.9 According to the terms in their concession contracts, the operating concessionaires need to increase their service coverage periodically; to do so new investments are required every year. The Company also has developed a water reuse program currently operating in its two main concessionaries Aguas Guariroba and Prolagos, the percentage of water loss or leaks in their distribution network is currently around 20%, and their goal is to reduce losses to approximately 15% in the next three years. This involves investment in new equipment and

software, such as pressure regulators and automation systems. Capital expenditures for the existing operations segment in the next three years will be of approximately US\$ 253 million.

D. *Workforce*

- 2.10 Currently, AEGEA's operations employ a total of 1,742 direct employees (75 percent of which are male and 25 percent female).

E. *Project Schedule and Costs*

- 2.11 The total cost of the three year investment plan is estimated to be approximately US\$276.18 million, IDB's proposed financing will be for US\$75 million.

F. *Alternatives Analysis*

- 2.12 Due to the nature of the first segment of the proposed investment plan: technological upgrades to existing operations (new equipment and software, such as pressure regulators and automation systems), alternative locations have not been considered. It will however be important to confirm during the ESDD that alternatives are considered in the second segment of the investment plan as part of the systematic review and management of new projects in the pipeline.

G. *Main Environmental and Social Aspects*

- 2.13 As of December of 2013, AEGEA managed water and sanitation services in 29 municipalities (2.2 million inhabitants) across six Brazilian states. These are: Pará, Mato Grosso, Mato Grosso do Sul, Sao Paulo, Santa Catarina, and Rio de Janeiro.
- 2.14 In general terms, these are in mid-size municipalities and can be characterized as populated, developed urban areas both inland and coastal, across all socio-economic populations. For example, in Mato Grosso do Sul, AEGEA is responsible for sanitation services in Campo Grande, a city with a population of 800 thousand. In Rio de Janeiro, AEGEA services five municipalities in the Lagos area with a combined population of 370 thousand. The company is also responsible for providing services in Piracicaba in the state of Sao Paulo, which has a population of 380,000. In particular the Company is planning to increase access to water and sanitation services as well as improve quality of service in low-income areas.
- 2.15 The specific environmental and social aspects of the locations in which AEGEA operates will be examined in more detail through appropriate environmental and social analysis and during the IDB's Environmental and Social Due Diligence (ESDD).

III. ENVIRONMENTAL AND SOCIAL COMPLIANCE REQUIREMENTS

A. *National Requirements*

- 3.1 AEGEA's investment plan includes the development of greenfield projects as well as investments in existing assets. The development of greenfield projects is conducted at the state level under Brazilian federal environmental licensing rules which define a process requiring, in some cases, the preparation of detailed environmental and social impact assessments of the aspects and impacts, both negative and positive, in the project's zone of influence. The stepwise environmental licensing process applicable to most industrial and infrastructure activities, including water and sanitation projects, entails the preparation of feasibility studies in order to

obtain preliminary licenses. This is normally followed by more detailed environmental and social impact assessments required to obtain first, a construction license (based on the state regulator's review of project impacts and mitigation measures), followed by an operating license that is issued after regulatory inspection of the fully constructed project, just before initiation of operations. Federal and State environmental licensing rules also allow state regulators to apply a streamlined licensing process for small and medium-sized sanitation projects defined as those servicing population centers of up to 30,000 and 250,000 inhabitants respectively which are representative of some of AEGEA's typical sewer concession areas. The streamlined process allows project sponsors to prepare more simplified environmental and social impact assessments (ESIAs) focusing on potential impacts to socio-economic aspects and to the water quality of the receiving environment.

- 3.2 Surface and groundwater abstraction projects are also required to seek water concession licenses issued by the State authorities.

B. IDB and Other International Requirements

- 3.3 According to the results of the Safeguard Policy Filter, the following directives of the IDB Environment and Safeguards Compliance Policy (OP-703) are triggered: B.2 (Country Laws and Regulations); B.3 (Screening and Classification); B.5 (Environmental Assessment Requirements); B.6 (Consultations); B.7 (Supervision and Compliance); B.10 (Hazardous Materials); B.11 (Pollution Prevention and Abatement). The Bank will also review compliance with the Public Information and Disclosure Policy (OP-102). Disaster Risk Management Policy (OP-704) as well as the Gender Equality Policy (OP-761). It is not expected that the Project trigger the Indigenous Peoples Policy (OP-765) or the Resettlement Policy (OP-710), however this will be reviewed during the ESDD.

- 3.4 Given that, based on the currently available information, the Project is likely to cause mostly local and short-term negative environmental and associated social impacts and for which effective mitigation measures are readily available, an environmental classification of Category B is proposed for the Project.

- 3.5 Under Directive B.5 of the Environment and Safeguards Compliance Policy, an Environmental and Social Analysis (ESA) is required for a Category B project. To that end it will be necessary to review existing analysis undertaken in conjunction with the existing Investment Plan. In the absence of such analysis, the Borrower will be required to prepare an ESA which focuses on direct, indirect, cumulative and reputational risks and impacts of the Investment Plan. Given that IDB financing is focused on upgrades to existing concessions, this will look at general impacts and risks and how these are managed and monitored. For new projects, this should identify the process that the Company undertakes at the project level to identify and assess environmental and social impacts and risks. Individual projects will be expected to undertake an appropriate level of assessment (Environmental Analysis or Environmental Impact Assessment).

IV. ENVIRONMENTAL AND SOCIAL IMPACTS AND MANAGEMENT APPROACH

- 4.1 Due to the nature of the project —an investment to a corporate entity to support operations of water and wastewater utilities — the key environmental and social, health and safety (ESHS) and labor potential impacts and risks include: (i) appropriate assessment and management of environmental and social risks and impacts related to the operation of water and wastewater facilities; (ii) labor and working conditions; (iii) occupational health and safety; (iv) solid waste management; (v) water availability, quality and efficiency; and (vi) energy efficiency. There may

also be other risks associated with the Company's expansion (new businesses), not the focus of the IDB investment, which may include new concessions and greenfield development.

4.2 AEGEA's core business activities in water and wastewater treatment provide essential environmental services with proven public health benefits. According to initial information reviewed, AEGEA is presently demonstrating the ability to effectively manage potential environmental and social risks from its business activities through the application of internationally accepted practices to protect soil, water and air resources. The company has hired a qualified professional who is responsible for developing and overseeing the implementation of a corporate ESHS policy and management program, consistent with local regulatory requirements and IFC Performance Standards.

A. *Environmental and Social Impacts and Risks*

4.3 **Occupational and community health and safety:** There is a risk of accidental events that could result in injuries to workers during the operation. Risks include those related to exposures to noise, elevated temperature, chemical agents and physical hazards. To prevent workplace accidents and promote the health of its employees, AEGEA implements Brazilian Regulatory Norms applicable to its operations through a Workplace Environmental Risk Prevention Program, use of personal protective equipment, emergency preparedness, procedures and response, and medical surveillance. Safety committees conduct preventative OHS inspections, reporting on health and safety issues encountered during work, investigating and analyzing occupational accidents, incidents, and health issues and helping ensure that the OHS training activities are completed. This will be reviewed in more detail during ESDD.

4.4 **Labor:** There could be labor risks associated with the 1,700 direct employees, as well as contractors and sub-contractors. It is expected that AEGEA complies with Brazilian national labor regulations and applicable sector specific collective bargaining agreements. Furthermore it is understood that the company communicates employee rights and responsibilities through human resource policies, employment contracts, employee handbooks and collective agreements each developed at the local concession level. All workers have a formal contract and are given a copy of the workers labor book provided by the Brazilian Ministry of Labor. The company provides worker benefits (including medical, insurance, childcare, meal and transportation vouchers). AEGEA has also implemented a Code of Ethics. The IDB will review these measures further during ESDD.

4.5 **Solid waste management:** The principal waste generated by AEGEA's activities is wastewater and sludge from water treatment plants. This can have negative environmental impacts on the environment if incorrectly classified and disposed. Initial information reviewed suggest that the company periodically tests wastewater and sludge in accordance with Brazilian regulations, and disposes of sludge from operating facilities in permitted sanitary landfills, and sludge from wastewater treatment facilities through drying basins into the wastewater network. The IDB will review these measures further during ESDD.

4.6 **Water availability, usage and efficiency:** There may be impacts and risks related to water availability, quality and efficiency with respect to AEGEA's water treatment plants and distribution systems, both in terms of the negative impacts on the local environment and risk to public health. However, based on the initial information reviewed suggests that AEGEA generally meets the standards specified by Brazilian State, Federal and Municipal environmental authorities. Brazilian wastewater discharge standards were reported as consistent with IFCs Performance Standards.

4.7 **Hazardous materials:** Facilities using and storing hazardous chemicals, particularly gaseous chlorine (only in Prolagos, and it will be replaced by hypochlorite generator) at drinking water treatment plants, pose risks associated with accidental releases. The measures that AEGEA employs (emergency prevention and control plans, provision of response equipment and materials, and procedures to minimize harm of any potential accident) are in place and will be reviewed as part of the ESDD.

B. *Potential Indirect and Cumulative Impacts and Reputational, and Other Risks:*

4.8 While not the focus of IDB financing, AEGEA's new business pipeline includes projects covering cities in 9 states that would in the long term serve approximately 26 million people. The prospecting activities are divided between potential acquisitions of private sanitation companies and participations in bids for new public concessions. Investments in new projects in the next three years are of approximately US\$ 166.66 million. These new concessions could have a broad spectrum of potential impacts and risks depending on location; however this can be managed through the application of AEGEA's environmental, social, health and safety plans and procedures, including appropriate environmental and social assessment at the project level, in accordance with state regulations, and IFC Performance Standards.

C. *Mitigation and Management of Impacts and Risks*

4.9 Based on a review undertaken by IFC as part of an investment made in April 2012 and November 2013, AEGEA's operations are currently managed in a decentralized manner at the concession level focusing on applicable regulatory obligations. These programs focus on the operational aspects of the water and wastewater treatment concessions, including operation and maintenance of the water and wastewater treatment facilities, technical and commercial water loss reduction programs in the water distribution systems, and the programmed expansion of water and wastewater service coverage in the area of concession. Environmental, social, and health and safety aspects are managed following applicable regulations and technical norms which are, over time, captured in operational manuals of the aforementioned activities.

4.10 In the current AEGEA operations, management of ESHS aspects is based on operational plans and procedures that cover such diverse aspects as treatment processes to achieve drinking water quality and wastewater treatment objectives; source water protection; water distribution system loss prevention; and occupational health and safety (i.e. training, health monitoring, etc.) as required by Brazilian law.

4.11 Similarly according to the IFC review, responsibility for the management of environmental, health and safety (EHS) aspects is assigned at the operational level, generally to an environmental coordinator who reports to the manager of operations of the concession. OHS matters are also managed by coordinators who report to human resource department of the respective concession. In some cases, environmental and OHS management is further delegated to OHS technicians or more typically through assignment of these responsibilities to operational personnel. Implementation of social responsibility activities is supported also at the local level, typically through an external communications coordinator with the support of operational managers.

4.12 AEGEA has hired a qualified professional who is responsible for developing and overseeing the implementation of a corporate ESHS policy and management program across all of its water and wastewater concession businesses.

- 4.13 As a result of IFC's investments the company was required to conduct an EHSS risks and impacts gap analysis following relevant World Bank Group EHS Guidelines and IFC Performance Standards. In the first IFC investment an action plan was established with three actions:
- Update corporate environmental, health and safety (EHSS) management program with supporting procedures (technical operational procedures) consistent with local regulatory requirements and IFC Performance Standards.
 - Strengthen EHSS management structure at the corporate level to ensure adequate implementation and monitoring of corporate policies and practices across increasing number of concessions.
 - Create and implement a formal employee grievance process consistent with IFC Performance Standard 2.
- 4.14 In December 2012 IFC reported that AEGEA has satisfactorily completed all three actions, and no further actions were required at present.

V. STRATEGY FOR DUE DILIGENCE

- 5.1 An Environmental and Social Due Diligence (ESDD) will be performed by the IDB, and if determined necessary, with the assistance of an Environmental and Social Consultant (ESC). The first task for the ESDD will be to review the Investment Plan, any Environmental Assessment undertaken (including any action plans and/or the ESMP), the existing ESHS policy and management program, as well as the IFC assessment and compliance reports. Given that this assessment was undertaken recently, to the extent possible IDB will build and rely on these existing reports, supplementing, as necessary, information from the actions listed below:
- a) Assessment of AEGEA compliance with applicable IDB environmental and social policies, including the Environmental and Safeguard Compliance Policy, Disclosure of Information Policy, Disaster Risk Management Policy; Gender Policy.
 - b) Assessment of AEGEA compliance with: (1) applicable environmental, social, health and safety, and labor legal requirements in Brazil (e.g., laws, regulations, standards, permits, authorizations) in particular the requirements in the EIA authorizations, water abstraction, emissions and effluent discharge; (2) specific legal requirements related to water and sanitation (3) applicable international treaties/conventions ratified by Brazil, etc.); (4) applicable international best practice environmental, social, health and safety, and labor requirements such as the IFC Performance Standards and ESHS Guidelines, and International Labor Organization (ILO) standards ratified by Brazil.
 - c) Evaluation to confirm that the potential direct, indirect and cumulative negative ESHS and labor risks and impacts related to the investment plan, have been properly identified and evaluated.
 - d) Confirm the implementation of adequate ESHS and labor policies, systems, plans (including monitoring), procedures, and documentation, including resource sufficiency, roles and responsibilities and training.
 - e) Assessment of the AEGEA's and contractor's capacity to identify, mitigate and monitor environmental, social, health and safety and labor aspects properly.
 - f) Confirmation that adequate contingency plans and procedures.
 - g) Evaluation of information disclosure and public consultation activities that have been performed or are planned including confirmation that the participation processes of stakeholders has been adequately conducted and that the proposed future actions to provide

adequate ongoing information disclosure and public consultation with the local population is in compliance with IDB policies and international good practice. This will include confirmation of existing stakeholder engagement programs and/or grievance mechanisms, as well as an assessment of proposed information disclosure and public consultation activities to be carried out for new facilities.

- h) Evaluate the identification of cumulative impacts and risks associated with the operation of the existing and new concessions in the investment plans.
- i) Evaluate positive impacts and any additionality from IDB's involvement.

5.2 As a result of the ESDD, the IDB will prepare an Environmental and Social Management Report (ESMR) that will provide a synthesis of the relevant ESHS aspects and the proposed Bank recommendations in terms of specific ESHS requirements to be included in the Loan Agreement.