

# Environmental and Social Review Summary (ESRS) Smart Hospital PPP for the Renovation of Rio de Janeiro's Public Hospital – Brazil

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# 1. General Information of the Project and Overview of Scope of IDB Invest's Review

Hospital Municipal Souza Aguiar ("HMSA") is located in downtown Rio de Janeiro, Brazil, and is one of the city's main public hospitals. Established in 1907, the hospital is known for its importance in urgent and emergency care, and is a reference in traumas and serious accidents. It can handle hundreds of daily patients, particularly medical, surgical, and orthopedic emergency cases. In addition, HMSA has an Intensive Care Unit ("ICU"), emergency room, outpatient care, and various specialty services. Due to its importance in Rio de Janeiro's public health system, it serves both the local population and more complex cases from the entire region.

As part of an effort to modernize and improve the hospital's management and services, the city government established a Public-Private Partnership ("PPP") to enhance efficiency and quality with the private sector's help in managing the unit's physical structure and equipment as well as the medical and nursing team employed by the city. while maintaining free access for the population. The PPP includes investments in infrastructure, equipment upgrades, and improvements in hospital management.

The proposed transaction (the "Project") consists of financing for the company that won the bid, named Smart Hospital (the "Company" or the "Client"). The hospital's renovation and operations will include all existing units (the "Hospital Complex"), which include the main building, the utility center, the emergency wing, the maternity ward, among others, as well as construction of a new parking garage on site.

The Environmental and Social Due Diligence ("ESDD") process has included a technical visit and interviews of several Company representatives, as well as the review of pertinent environmental, social, and health and safety information provided by the Client, mainly addressing: i) the environmental and social management system; ii) the adopted human resources policy and health and safety practices; iii) architectural and construction details for the hospital's renovations; and iv) procedures related to the hospital's waste management, fire prevention and fighting, emergency response, among others, as required under Brazilian legislation and international best practices.

During the ESDD process, the following documents were reviewed to assess the Project's commitment to human rights and its zero tolerance policy regarding reprisals: Code of Ethics, Personnel Development Policy, and Gender Equity and Respect for Diversity Policy. These documents describe the Project's policies and procedures toward human rights protection and guarantee of a safe environment for stakeholders to express their concerns without fear of retaliation.

#### 2. Environmental and Social Categorization and Rationale

In accordance with IDB Invest's Environmental and Social Sustainability Policy ("ESSP"), the Project was classified under Category B as it presents low to medium intensity risks and impacts, which may be mitigated through available and feasible measures in the context of the proposed operation. The main risks and impacts identified include: i) occupational health, safety, and security risks for directhire and outsourced workers; ii) the generation of solid waste, including hospital and hazardous waste in general; iii) the increase in vehicular traffic in areas near the Project; and iv) risks of fire and other emergencies, aggravated by the presence of persons under hospital care or with reduced mobility.

The Performance Standards ("PS") applicable to the Project are: PS1: Assessment and Management of Environmental and Social Risks and Impacts; PS2: Labor and Working Conditions; PS3: Resource Efficiency and Pollution Prevention; PS4: Community Health, Safety, and Security, and PS8: Cultural Heritage.

#### 3. Environmental and Social Context

# 3.1 General Characteristics of the Project's Site

HMSA is located in downtown Rio de Janeiro, one of the busiest and most strategic areas of the city. Situated at Praça da República, n° 111, the hospital is close to important access roads, such as Avenida Presidente Vargas and Avenida Rio Branco.

HMSA was originally designed to be a general and emergency hospital. Over the years, it became one of Rio de Janeiro's largest and most important public hospitals, particularly in urgent care and medical emergencies, and is a reference in the region. Due to its central location, the hospital is easily accessible and served by several public transportation lines, including metro, rail, and buses, which facilitates serving patients from different parts of the city and metropolitan area.

The hospital's neighborhood is predominantly commercial and institutional, with many offices, government buildings, and service establishments. There are some tourist and cultural attractions nearby, such as Arcos da Lapa and Theatro Municipal. However, the region also faces urban challenges, such as intense traffic and areas of social vulnerability, which increase the demand for the hospital's emergency services.

#### 3.2 Contextual Risks

The Project is located in a densely urbanized region within one of the largest urban conglomerates in the Southern Hemisphere. As many metropolitan areas of the world and Latin America, the Metropolitan Area of Rio de Janeiro faces various social and economic issues, including social inequality, high unemployment, crime, inadequate infrastructure, and a number of environmental challenges related to waste management, floods, and irregular land occupation.

The area around HMSA suffers from high crime levels, which may impact both patient access and the safety of healthcare professionals who work at the unit. Urban violence in the neighborhood is a constant threat, particularly considering the nature of cases served by the hospital, which is a reference in care for trauma cases and victims of violence.

Lastly, the hospital's infrastructure, which is more than one century old, has shown signs of wear, with recurring maintenance problems, such as water leaks, electrical and hydraulic failures, as well as areas that no longer meet modern standards of safety and comfort for patients and healthcare professionals. The hospital also lacks a central heating, ventilation and air Conditioning system, which directly impacts patient comfort in a city internationally known for its high temperatures. Such issues will be addressed by the PPP benefiting from this financing.

## 4. Environmental Risks and Impacts and Proposed Mitigation and Compensation Measures

# 4.1 Assessment and Management of Environmental and Social Risks

#### 4.1.a E&S Assessment and Management System

Smart Hospital manages environmental, social, and health, safety and security issues in their operations with a focus on compliance with Brazilian legal and regulatory requirements. The Company has procedures that cover specific areas related to operational, monitoring, and legal compliance issues.

Although the Company has some of the elements of an environmental and social management system (ESMS), it is not yet consolidated or structured. In this regard, the Company will develop and implement an ESMS that is consistent with international best practices.

#### 4.1.b Policy

Smart Hospital does not yet have a corporate policy that covers environmental and social topics. Thus, as part of the implementation of their ESMS, the Company will develop and implement a policy that addresses social and environmental topics, including statements of mission, vision and values. In addition, Smart Hospital will disclose their sustainability policy to the public through the Company's website, engagement activities with internal and external stakeholders, and in contracts with vendors and service providers.

# 4.1.c Identification of Risks and Impacts

Smart Hospital does not yet have a consolidated matrix of environmental and social risks and impacts. Therefore, in the context of implementing their ESMS, the Company will develop an Environmental and Social Risk and Impact Matrix.

#### 4.1.c.i Gender Risks

In the State of Rio de Janeiro, 53% of the resident population are women, and their life expectancy is 79 years (on average, 7 years longer than men's). Among working women between 25 and 49 years of age, about 68% are formally employed. In general, women in this category have an hourly income approximately 12% lower than formally employed men's.<sup>1</sup>

The city of Rio de Janeiro offers a number of specialized services for women victims of violence in the country. There are several public initiatives, including service centers and shelters, to support women in a situation of domestic and family violence.

Most of the personnel hired for the hospital's construction and operation will be local workers from the Metropolitan Area of Rio de Janeiro. Thus, there will not be a need for lodgings and it will not overburden the host communities nor present a risk of external disease vectors.

Smart Hospital will develop internal policies that reaffirm their commitment to values based on ethics and equity, non-discrimination, and non-gender violence. However, considering the data collected in the area and in order to prevent gender violence cases in the communities in which it operates, Smart Hospital will develop specific educational content and will undertake internal informational campaigns for the workforce assigned to the Project.

## 4.1.c.ii Climate Change Exposure

The Project presents low physical and climate change transition risk. In any case, the building will have green building certification, with equipment planned to optimize efficiency in the use of resources, including water and energy, both during construction and operations.

#### 4.1.d Management Programs

HMSA currently has a Healthcare Waste Management Plan ("HWMP") that addresses hospital and common waste management in an integrated manner.

The Company has also adopted a series of procedures to manage issues related to human resources ("HR") and Occupational Health and Safety ("OHS"), such as a Risk Management Program ("RMP") and an Occupational Health Medical Control Program ("OHMCP"). OHS procedures and practices are detailed in the item related to PS2 in this document.

With respect to the ESMS implementation, Smart Hospital will develop and implement the management programs required to control the elements identified in their risk and impact matrices.

# 4.1.e Organizational Capacity and Competency

Smart Hospital has Environmental, Health and Safety ("EHS") staff who are responsible for environmental and social, occupational health, safety and security, and quality management issues.

Data extracted from the study entitled *Estatísticas de Gênero: Indicadores sociais das mulheres no Brasil – 3<sup>rd</sup> Edition,* published by Instituto Brasileiro de Geografia e Estatística ("IBGE") (see <a href="https://biblioteca.ibge.gov.br/visualizacao/livros/liv102066\_informativo.pdf">https://biblioteca.ibge.gov.br/visualizacao/livros/liv102066\_informativo.pdf</a>).

The area is to be expanded during the Project, with expected future hirings of experts in human resources, health and safety, and quality management. In addition, the Company has engaged consultants and companies to provide assistance in areas related to licensing, occupational health, safety, and security, and fire protection.

The implementation of the ESMS and any new certifications to be obtained will require greater control over documents and internal processes. Therefore, Smart Hospital will reassess their EHS staffing and, if needed, expand the team to accommodate future needs.

# 4.1.f Emergency Preparedness and Response

HMSA has an Emergency Preparedness and Response Plan ("EPRP") based on relevant State standards on emergency preparedness and fire safety, which cover the main likely risks. However, this plan has not yet been broadly disseminated to employees, and no emergency drills have been conducted.

The Project includes fire safety provisions such as fire partitioning, alarm and detection systems, egresses, as well as fire suppression and control measures.

Emergency preparedness and response plans for the construction phase will be incorporated into HMSA for implementation by the contractor under the Project management team's supervision.

Once the hospital is renovated, Smart Hospital will develop and implement an updated emergency preparedness and response plan, which will include a detailed risk analysis<sup>2</sup> and detailed response actions for emergency control, and will address the following: (i) predictable risk scenarios (fire, attacks by individuals or groups, floods, civil unrest, adverse weather conditions, external emergencies, among others); (ii) patient safety (iii) evacuation methods and equipment; (iv) emergency response training program for all employees, including the medical team, health and safety personnel, firefighters and first responders; (v) mechanisms to coordinate with emergency responders and other external parties; (vi) external controls (traffic, points of access, barriers, etc.); (vii) means to inform affected communities during emergencies, consistent with the institution's stakeholder engagement plan; and (viii) fire drill program to be executed as part of the annual corporate safety and emergency response training plan. In order to implement the plan, HMSA will recruit and assign a fire safety officer and a dedicated team

## 4.1.g Monitoring and Review

Smart Hospital has focused on implementing monitoring programs related to OHS, in accordance with Brazilian legal requirements. However, in the context of their ESMS, the Company will develop and implement procedures to monitor and measure the management program's effectiveness, as well as compliance with any legal or contractual obligations and regulatory requirements. To this

From each of the complex's areas or buildings (main hospital, ward tower, emergency room, outpatient care, annex, parking lot, etc.), including support spaces (for example, restaurant and kitchen, labs, auditorium, offices).

end, the Company will identify a professional to be in charge of monitoring, as well as establish an internal audit procedure and a timeline for periodic ESMS revisions.

## 4.1.h Stakeholder Engagement

Smart Hospital conducts specific engagement activities with some local stakeholders, particularly by supporting social initiatives. However, the Company does not yet have a stakeholder engagement plan. Therefore, the Company will develop such a plan, to include: i) mapping, analysis, and planning of identified social actors' participation; ii) a mechanism for information dissemination, consultation, and communication with social actors; and iii) a mechanism to collect and resolve grievances, including anonymous reports.

#### 4.1.i External Communication and Grievance Mechanisms

Smart Hospital is in the process of implementing a grievance mechanism that will offer a means of receiving suggestions, grievances, and reports of violation of and noncompliance with the Company's policies and procedures. In addition, the Company will install suggestion boxes or communication totems in the various hospital unit buildings and enable their electronic page to capture any complaints.

Opinions received through these channels will be securely and anonymously reviewed by the Company's Ethics Committee. All Smart Hospital stakeholders (employees, vendors, clients, and society in general) will be able to use the available communication channels. As part of the ESMS implementation process, the Company will establish a procedure for upper management and the technical team to periodically assess the system and its results.

In addition to the already developed and implemented channels, the Company will disseminate periodic reports on their web page regarding their environmental and social performance.

#### 4.2 Labor and Working Conditions

#### 4.2.a Working Conditions and Management of Worker Relationships

Smart Hospital has 417 direct hires in their workforce, in addition to 400 contractors working in areas such as janitorial, food, and security, among other services. It should be noted that doctors and nurses continue to be employed by the city and are not part of Smart Hospital's staff.

The Company has elements of a human resources ("HR") policy, including Personnel Development, Gender Equity and Respect for Diversity, and Mobility Assistance policies, among others. Smart Hospital also developed a Code of Ethics, which clearly prohibits any form of forced, child, or mandatory labor, discrimination, threat, coercion, abuse or harassment in the workplace.

Employment terms and conditions are clearly defined in the contracts signed by Smart Hospital with their employees and are consistent with the provisions of Brazilian labor legislation. The Company offers competitive salaries to their employees and all basic benefits guaranteed under Brazilian law, as well as additional benefits (such as access to private health insurance, life insurance,

transportation and meal vouchers, among others), in order to attract and retain employees and enhance their performance.

Labor rights in Brazil, including freedom of association and collective bargaining are protected under the country's Constitution and Consolidated Labor Laws ("CLT"), which are consistent with International Labor Organization ("ILO") guidelines. According to Brazilian labor laws, all workers may join a union, and Smart Hospital employees benefit from collective bargaining agreements in place in their areas. The Company does not restrict participation in unions, complies with collective bargaining agreements, and respects workers' rights.

However, Smart Hospital will establish a Human Resources Policy for the Project.

#### 4.2.a.i Grievance Mechanism

Smart Hospital has an internal communication channel<sup>3</sup> for employees to submit any complaints regarding work conditions and employment. According to their Code of Ethics, the Company ensures the confidentiality of each complaint e affirms that there will not be any type of retaliation under any circumstance.

However, the Company will install suggestion boxes or totems at various locations in the hospital complex, and the communication channels will be disseminated to internal stakeholders through bulletin boards, posters, and emails. Reports received through the complaint channels will be logged and organized in a spreadsheet or system, and will be monitored by the Company's Ethics Committee. In addition, the Company will establish a specific procedure that will cover, among others, details on how complaints received are handled, timing of follow-ups, and a list of persons responsible for managing the communication.

# 4.2.b Protecting the Workforce

The contracts between Smart Hospital and their employees, whether direct-hire or outsourced, are consistent with local labor legislation and establish, among other aspects, the length of a workday, the hours of work, overtime, paid rest days, minimum compensation, benefits, bonuses stipulated by law and minimum occupational health, safety, and security requirements.

# 4.2.c Occupational Health, Safety, and Security

Brazil has a set of detailed and prescriptive OHS regulations, known as Regulatory Standards ("NR"), which apply to the Company's operations and must be continuously observed. These include: the Risk Management Program ("PGR"); the Specialized Service in Safety Engineering and Occupational Medicine ("SESMT"); the Internal Commission for Accident Prevention ("CIPA"); Personal Protective Equipment ("PPE"); the Occupational Health Medical Control Program ("PCMSO"); and Occupational Health and Safety in Healthcare Services ("SSTSS"), among others applicable to specific types of work, such as electrical installations or work at heights.

<sup>&</sup>lt;sup>3</sup> Email sac.chmsa@smarthospitals.net

Through the development of PGRs, required medical examinations are established for hiring, periodic assessment and termination of any employee, which are defined according to the nature and risk profile of the specific position (through the PCMSO).

During the hospital complex's renovation phase, the workforce will receive proper PPE as well as OHS training, including daily safety talks. Smart Hospital will monitor, maintain statistics on, and report any significant accident or incident during the Project's construction phase. In addition, Smart Hospital will develop and adopt a system to notify and investigate incidents, including accidents, near accidents, and reports of dangers and risks, in order to investigate root causes and plan and implement prevention and mitigation measures.

Smart Hospital will also supervise their contractors and verify if they are compliant with Labor and OHS Laws. This provision will be reflected in the Contractor Management Plan, which will also be developed by the Client.

# 4.2.d Workers Engaged by Third Parties

Approximately half of Smart Hospital employees are outsourced and mainly provide janitorial, security, parking, cafeteria, and other services. Companies that provide outsourced workers are examined by the Supply Department to evaluate their compliance with labor and OHS standards, confirm that social security payments are up-to-date, and check the history of labor lawsuits, among other aspects. Standard EHS requirements are included in the contracts, and Smart Hospital disburses payments against evidence of compliance with such requirements.

The internal grievance mechanism to be developed and implemented by the Company can also be used by outsourced workers. Likewise, the applicable requirements for outsourced workers will be consolidated in the Contractor Management Plan to be developed and adopted by Smart Hospital.

#### 4.3 Resource Efficiency and Pollution Prevention

## 4.3.a Resource Efficiency

Smart Hospital's strategy includes improving energy efficiency in their operations. Since taking over HMSA's operations, the Company has purchased electrical power in the free market and focused on renewable sources.

Smart Hospital has implemented awareness-raising actions and the rational use of water resources, including investments in equipment with better efficiency, such as showers and taps with aerators and pressure and flow reducers. Since taking over HMSA's operations, Smart Hospital has achieved a 21% reduction in water consumption compared to the previous period. As of March 2025, with the completion of all device installations, the reduction is expected to reach 30%.

HMSA will be EDGE<sup>4</sup> certified, and the buildings should improve resource use efficiency indicators compared to similar hospitals, particularly in reduced water and energy consumption, thus lowering carbon equivalent emissions.

#### 4.3.a.i Greenhouse Gases

Smart Hospital has not yet quantified its Greenhouse Gas ("GHG") emissions. However, the Company's direct and indirect emissions from fuel consumption, backup diesel generators, and electricity use are estimated to be lower than 25,000 tons of CO<sub>2</sub>e/year, and are not considered to be a significant source of GHG emissions. However, Smart Hospital will conduct an inventory of GHG emissions and develop a reduction plan to be implemented during the Project's period of operations.

#### 4.3.b Pollution Prevention

Liquid effluents, particularly sewage and food service wastewater, are routed to the public sewage collection and treatment system.

HMSA has a HWMP in accordance with current legislation.<sup>5</sup> All waste generated at the medical units is collected, stored, and disposed of in accordance with the plan, depending on their classification. The HWMP includes procedures for segregating and managing waste flows within the units, as well as proper handling, collection, temporary storage, and transportation and disposal. The medical units generate basically three kinds of solid waste: (i) common domestic waste in service areas, kitchens, cafeterias, and restrooms; ii) infectious waste, which is collected and stored in a segregated manner; and (iii) chemical waste, which is also collected and stored in a segregated manner.

All waste is gathered in temporary storage areas prior to being collected by outside service providers licensed by the proper environmental authorities for its transportation, treatment, and disposal. Common and organic waste are disposed of in landfills. Chemical, infectious, and sharp waste are collected, separated, and incinerated by a licensed company. Biological laboratory waste is also segregated and collected by a certified company due to their associated pathological risks.

# 4.4 Community Health, Safety, and Security

# 4.4.a Community Health and Safety

The Company's facilities are regulated by the National Sanitary Surveillance Agency ("Anvisa"), which reviews and approves hospital engineering projects, issues operating licenses, and regularly inspects the medical units for compliance with current health and safety requirements.

<sup>&</sup>lt;sup>4</sup> The EDGE (Excellence in Design for Greater Efficiencies) certification is an international certification system for sustainable buildings created by the World Bank Group's International Finance Corporation ("IFC"). Its purpose is to improve buildings' efficiency in consumption of energy, water, and materials.

<sup>&</sup>lt;sup>5</sup> Brazilian Health Regulatory Agency ("ANVISA") Resolution No. 306 and CONAMA Resolution No. 358/2005.

Due to their old age, hospital facilities requiring interventions are not generally compliant with basic accessibility guidelines. Therefore, in the context of the Project, all buildings will be modified to include basic accessibility devices to comply with Brazilian legal requirements and good international practices.

HMSA will comply with local regulations as well as World Bank Group's Environmental, Health, and Safety Guidelines (*EHS Guidelines*) applicable to the design and installation of life and fire safety systems in the renovated hospital using an international code as reference for good international practices in the sector.<sup>6</sup> In this regard, the entire complex, including renovated areas and new buildings (outpatient services, parking lot, chapel, etc.), will be equipped with life and fire safety ("L&FS") infrastructure, adapted to current conditions and structural limitations but ensuring compliance with the intention of good international practices and L&FS codes. This equipment will include the following: i) a fire detection and alarm system (e.g.: smoke detectors, loudspeakers, visual signage, manual alarm buttons); ii) firefighting infrastructure (e.g.: extinguishers, water pumping system, automatic sprinklers, hydrants with hoses and connections to the Fire Department); iii) emergency exits and proper signage; iv) pressurized stairwells, emergency elevators, and shelter areas; v) fire and smoke partitioning with fire doors and adequate evacuation routes, emergency lighting and backup power source; and vi) medical gas systems.

In order to ensure that the Project's final design meets all applicable L&FS requirements, the Company will submit an endorsement letter from an expert L&FS consultant. Likewise, after the physical completion of construction in each phase or hospital complex building and before the start of operations, HMSA will submit a certification from an L&FS expert confirming that the L&FS systems were installed as designed and in compliance with *EHS Guidelines* for L&FS.

In addition, with respect to the ESMS implementation, the Company will update their Operation and Maintenance ("O&M") process, and develop Key Performance Indicators ("KPIs") specifically for L&FS. These KPIs will also apply to all systems that are essential to protect patients' lives (e.g.: backup power generators, gas systems, batteries, etc.).

For any future change in the hospital, the Company will develop and implement a formal Management of Change procedure. This procedure will include at least: i) a complete concept evaluation and approval for the change by all internal stakeholders (e.g.: doctors, managers, O&M team, security, etc.); ii) a detailed review by L&FS experts to ensure the proposed changes' compliance with the necessary safety requirements; and iii) protocols for final project commissioning to ensure that all building features are intact after renovation, including L&FS systems (partitioning, fire protection systems, etc.), as verified by qualified professionals.

#### 4.4.b Security Personnel

Smart Hospital does not use armed security. The security team is outsourced and focuses on access control and response to any emergencies. Due to the local contextual risks associated with treating victims of violence, Smart Hospital will implement mandatory human rights training for the outsourced security team to ensure protection practices that are respectful of patient dignity and

<sup>&</sup>lt;sup>6</sup> Such as, for example, the American NFPA 101 and NFPA 99 standards.

sensitive in interacting with vulnerable populations. This training will include non-discrimination, humane-approach, and non-violent communication protocols that are incorporated into the hospital's emergency plan.

# 4.5 Land Acquisition and Involuntary Resettlement

The Project will not cause any involuntary physical or economic displacement. The location where HMSA operates are lots that were previously acquired for this purpose.

# 4.6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

Since the Project is implemented on urban land where there has been intense human activity interventions, there will be no material impacts on biodiversity or living natural resources. In addition, the Project will not involve critical habitats nor biologically or ecologically sensitive areas.

# 4.7 Indigenous Peoples

The Project will not intercept indigenous areas or territories nor will it directly impact indigenous peoples.

## 4.8 Cultural Heritage

HMSA houses three heritage items protected by the City of Rio de Janeiro: (i) The Esculápio and Hígia statues, copies of antiques; (ii) the internal stone panel; and (iii) the Hospital Complex's sculptural wall. These two last items were created by landscape architect Roberto Burle Marx.

Such heritage items are free for public visitation and will be preserved and restored by Smart Hospital in accordance with the requirements established by the City Department of Culture in order to ensure that all interventions are in compliance with preservation regulations and have no negative impact on the items.

In this regard, Smart Hospital will develop and implement a Cultural Heritage Management Plan ensuring the preservation and restoration of heritage items. The plan must include guidelines for the maintenance of gardens and historic landscapes, the restoration of architectural elements, and the adoption of solutions that are consistent with the hospital's cultural value. Such plan must also include training for teams involved in the renovation in order to ensure that interventions are conducted with due care and respect for heritage items, minimizing risks of damage or defacement.

# 5. Local Access of Project Documentation

Documentation related to the Project may be found at http://www.smarthospitals.net.