

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

HONDURAS

COMPREHENSIVE STRENGTHENING OF TEGUCIGALPA'S TRAUMA AND EMERGENCY CARE NETWORK

(HO-L1199)

LOAN PROPOSAL

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LINKS
REQUIRED
1. Multiyear execution plan
2. Monitoring and evaluation plan
3. Environmental and social management report
4. Procurement plan
OPTIONAL
1. Project economic analysis
2. Social and environmental analysis
3. Financial sustainability commitment
4. Analysis of alternatives
5. Draft Operations Manual
6. Safeguard policy filter and Safeguard screening form

ABBREVIATIONS

CIOES	Centro Integrado de Operaciones de Emergencia y Seguridad [Integrated Emergency and Safety Operations Center] [911]
ECI	Externally caused injury
EMT	Emergency medical technician
ENDESA	Encuesta Nacional de Demografía y Salud [National Population and Health Survey]
ESMP	Environmental and Social Management Plan
ESMR	Environmental and Social Management Report
FFF	Flexible Financing Facility
HEU	Hospital Escuela Universitario [University Hospital School]
INE	Instituto Nacional de Estadística [National Statistics Institute]
LAC	Latin America and the Caribbean
MAP	Medical-Architectural Program
MEP	Multiyear execution plan
MNS	Modelo Nacional de Salud [National Health Model]
NGO	Nongovernmental organization
PAHO	Pan American Health Organization
PEU	Project executing unit
SEFIN	Ministry of Finance
SEPA	Procurement Plan Execution System
SESAL	Ministry of Health
SIAFI	Sistema de Administración Financiera Integrada [Integrated Financial Management System]
SNE	Sistema Nacional de Emergencias [National Emergency System]
SRISS	Subsecretaría de Redes Integradas de Servicios de Salud [Integrated Health Services Network Department]
UEPEX	Unidades Ejecutoras de Proyectos Externos [Executing Units for Externally Financed Projects]
UTGP	Unidad Técnica de Gestión de Proyectos [project management technical unit]
YLL	Years of life lost

PROJECT SUMMARY

HONDURAS COMPREHENSIVE STRENGTHENING OF TEGUCIGALPA'S TRAUMA AND EMERGENCY CARE NETWORK (HO-L1199)

Financial Terms and Conditions						
Borrower: Republic of Honduras				Regular Ordinary Capital (FFF)^(a)	Concessional Ordinary Capital	
			Amortization period:	25 years	40 years	
Executing agency: Ministry of Health (SESAL)			Disbursement period:	5 years		
			Grace period:	5.5 years ^(b)	40 years	
Source	Amount (US\$)	%	Interest rate:	LIBOR-based	0.25%	
IDB (Ordinary Capital):	32,292,000	60	Credit fee:	(c)	N/A	
IDB (Concessional Ordinary Capital):	21,528,000	40	Inspection and supervision fee:	(c)	N/A	
			Weighted average life:	15.25	N/A	
Total:	53,820,000	100	Approval currency	U.S. dollars		
Project at a Glance						
Project objective/description: The objective of the operation is to strengthen the supply of trauma and emergency services in Tegucigalpa and the Central-Southeast region by building a new trauma hospital, to improve the quality of life and care of patients with externally caused injuries and other pathologies through decongestion of services at the University Hospital School (HEU).						
Special contractual condition precedent to the first disbursement of the loan: The program Operations Manual has been approved and is in effect under terms previously agreed on by the Bank (paragraph 3.10).						
Special contractual conditions of execution: (i) prior to the awarding of the contract for architectural design of the trauma hospital, SESAL will present the hospital preinvestment study and the Medical-Architectural Program to the Bank; (ii) prior to start of the bidding process for the trauma hospital construction work contract, the following will be presented to the Bank's satisfaction: (a) property title duly registered to the State; and (b) approval of a legal instrument defining the financing source and mechanism for hospital operation; and (iii) prior to awarding a contract for construction of the trauma hospital, a contract must already be signed with a firm or entity specialized in managing hospital construction projects (paragraph 3.11). See other socioenvironmental conditions in Annex B of the Environmental and Social Management Report .						
Exceptions to Bank policies: None.						
Strategic Alignment						
Challenges:^(d)	SI	<input checked="" type="checkbox"/>	PI	<input type="checkbox"/>	EI	<input type="checkbox"/>
Crosscutting themes:^(e)	GD	<input checked="" type="checkbox"/>	CC	<input checked="" type="checkbox"/>	IC	<input type="checkbox"/>

^(a) Under the terms of the Flexible Financing Facility (document FN-655-1), the borrower has the option of requesting changes to the amortization schedule, as well as currency and interest rate conversions. The Bank will take operational and risk management considerations into account when reviewing such requests.

^(b) Under the flexible repayment options of the Flexible Financing Facility, changes to the grace period are permitted provided that they do not entail any extension of the original weighted average life of the loan or the last payment date as documented in the loan contract.

^(c) The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of Bank lending charges, in accordance with the relevant policies.

^(d) SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

^(e) GD (Gender Equality and Diversity); CC (Climate Change and Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

I. DESCRIPTION AND RESULTS MONITORING

A. Background, problem addressed, and rationale

- 1.1 Honduras is a lower-middle income country with an extreme poverty rate of 40.7% and a moderate poverty rate of 64.3%.¹ The majority of the country's population is young (57% are under 25);² 46% is rural and 54% urban, with a trend toward urbanization similar to that in other countries of Latin America and the Caribbean (LAC). From 2010 to 2017, the urban population grew by 14%, while the rural population grew by only 2%.³ High poverty rates are one of the factors driving the significant migration of people from the countryside to the country's two main cities: Tegucigalpa and San Pedro Sula.⁴
- 1.2 **Spending on health.** Public spending on health totaled 3.95% of GDP, which is comparable with other countries in the region (Nicaragua: 4.41% and El Salvador: 4.44%), yet Honduras faced poorer health outcomes than those countries. For example, its infant mortality rate is 24 per 1,000 live births—significantly higher than the rate in Nicaragua (14) or El Salvador (9).⁵ These statistics show that there is significant margin for improving the quality and efficiency of public spending.⁶ Some 90% of private spending on health is out-of-pocket and occurs mainly in the two lowest quintiles (which together account for 44% of total health spending). This reveals low financial protection,⁷ inequity in financing, and problems of access to health services.⁸
- 1.3 **The health system in Honduras** is made up of two subsystems: (i) private, which covers 7% of the population; and (ii) public, made up of the Honduran Social Security Institute (which covers 18%) and the Ministry of Health (SESAL), which covers the rest of the population (75%), mainly the poor.
- 1.4 The country's health system is organized into two care levels. The first comprises the low-complexity health facilities that provide ambulatory care, including: health centers, polyclinics and peripheral emergency clinics (CLIPER). Peripheral emergency clinics provide 24-hour care in general medicine, have laboratories, and treat minor emergencies. The second level comprises hospital facilities, which are divided into four categories: (i) basic or type-1 hospitals, which provide services in the four basic specialties (pediatrics, obstetrics-gynecology, internal medicine, and surgery) and include emergency services; (ii) general or type-2 hospitals, which in addition to having the four basic specialties and emergency care also offer specialties such as neurosurgery and/or orthopedics; (iii) type-3 or specialty/subspecialty hospitals, which in addition to treating emergencies also

¹ Permanent Multipurpose Survey. INE, 2017.

² Population census. INE, 2017.

³ Idem.

⁴ The urban population grew from 4.3 million in 2014 to 4.9 million in 2018. INE, 2018.

⁵ Trends in Maternal Mortality: 1990 to 2015. World Bank-United Nations.

⁶ Niveles y Determinantes de la Eficiencia del Sistema de Salud en América Latina y el Caribe. IDB, 2017.

⁷ The risk of catastrophic expenses or impoverishment is high when out-of-pocket spending accounts for more than 20% of total expenditure in health. Health and Nutrition Sector Framework Document. IDB, 2016.

⁸ Spending in health 2014/World Bank and Estudio de Gasto-Financiamiento en Salud 2014-SESAL.

- treat patients referred from type-1 and type-2 hospitals; and (iv) type-4 hospitals or highly specialized institutions; these are referral hospitals without emergency services.⁹
- 1.5 In all, 25% of primary health care facilities and five of SESAL's 29 hospitals are run under the decentralized management model. This model consists of contracting managers¹⁰ who provide promotion, prevention, and care services at the primary care level; at the secondary level, they manage and deliver hospital services. At both levels, the decentralized management model is implemented through payment mechanisms linked to fulfillment of production, access, coverage, and quality indicators.
- 1.6 Honduras' health system faces structural problems, such as shortages of available beds and health personnel. There are 0.8 beds per 1,000 population, which is well under the figure in neighboring countries (Costa Rica: 1.2; El Salvador: 1; Panama: 2.2).¹¹ On average there are 10 physicians and 3.8 nurses per 10,000 population—also below LAC averages (17.6 physicians and 14.3 nurses per 10,000 population).¹² In addition, the public health system has an inadequate and deteriorated health infrastructure; the number of beds has barely increased over the last 25 years.
- 1.7 **Externally caused injuries (ECIs)** are one of the country's most pressing public health problems. ECIs are now the leading cause of years of life lost (YLL) due to premature deaths, followed by chronic diseases (ischemic heart disease, cerebrovascular diseases, diabetes, hypertension and chronic renal insufficiency), and complications during childbirth and neonatal deaths. The leading causes of premature death in 1990 were: (i) diarrheal diseases from viruses, bacteria, and parasites; (ii) complications during childbirth; (iii) ischemic heart diseases; (iv) respiratory infections; and (v) ECIs, presenting a triple burden of disease in which communicable diseases were most common. Since 1990, however, the country's epidemiological profile has markedly shifted: ECIs have risen by 133% and communicable diseases (including diarrhea, etc.) declined by 68%¹³ as causes of YLL. Like in the rest of the world, noncommunicable diseases and ECIs have been rising in Honduras and are largely responsible for an increase in disability-adjusted life years;¹⁴ while a smaller proportion are now due to communicable diseases, maternal and neonatal causes, and nutrition.
- 1.8 As a result of the rise in ECIs, they are now the second leading cause of hospital discharges and emergency care in Honduras' public hospitals,¹⁵ which mainly serve Honduras' poor population. The leading causes of ECIs are traffic accidents,

⁹ MNS/SESAL/2017.

¹⁰ NGOs, city hall, associations of townships, community associations, and foundations.

¹¹ World Health Statistics. WHO, 2012.

¹² Basic Health Statistics. PAHO, 2017.

¹³ Global burden of disease for LAC. IHME, 2016.

¹⁴ Diseases, ECIs, and risk factors cause permanent functional limitations of different magnitude for individuals who suffer from them. Disability adjusted life years are a summary measure of their impact and are estimated weighting the prevalence of different conditions based on severity.

¹⁵ Statistical Yearbook. SESAL, 2015.

- gunshot wounds, and fire, accounting for 55% of emergency care.¹⁶ Deaths from traffic accidents in the country are mainly the result of pedestrians getting hit (33%) and motorcycle accidents (23.6%).¹⁷ Since people using these (usually riskier) transportation modes tend to be from lower-income segments of the population, they are significantly more likely to be victims of accidents.¹⁸
- 1.9 ECIs, in addition to being the main cause of YLL from premature death, also cause disabilities (especially in the young and productive population), which can affect family income. The age group most affected by ECIs are 15-to-34-year olds, with about 38% (72% of whom are males).¹⁹ In Honduras, 64% of all hospital discharges due to ECIs involve some kind of permanent disability. ECIs can also impose high out-of-pocket costs on victims and their families. These costs can be difficult to estimate but are mainly associated with the high costs of prostheses and osteosynthesis material,²⁰ which are not provided by public hospitals in the country.
- 1.10 ECIs also have a significant economic and financial impact on health systems and hospitals where patients are treated. For example, the University Hospital School (HEU)²¹ spends more than one third of its budget on ECI care.²² These high economic outlays are due to: (i) the severity of the injuries of hospitalized patients; (ii) long hospital stays; and (iii) the high cost of inputs.
- 1.11 ECI patients treated in hospitals also reveal the degree of violence against women. In its January-December 2017 bulletin, the Observatorio Nacional de Violencia [National Violence Observatory] reported that forensic medicine documented 11,307 cases of injuries (44.7% women and 55.3% men), 3,196 cases of assault on women, and 3,105 sexual offenses. ECIs due to violence against women is a phenomenon that is difficult to quantify and treat in the country, since: (i) 23.5% of the victims do not seek institutional care because of their spouse's threats; and (ii) service providers do not identify violence against women as the cause of the ECI and therefore, although treated in health services, the victim may not be referred to a comprehensive care center.
- 1.12 In summary, the growing demand for ECI care greatly exceeds the installed capacity of the public health services network. An analysis of ECI discharges conducted in the country's hospital networks found that there is a national shortage of about 318 beds²³ to meet current demand for ECI care (and projected estimates over the next 15 years), distributed as follows: (i) the Central-Southeast hospital network, which handles 59% of ECI discharges, faces a shortage of 150 beds (its

¹⁶ HEU statistics, 2018.

¹⁷ National Road Safety Observatory of Honduras (ONASEVIH). 2015 report.

¹⁸ Road Safety Strategy–IDB: Closing the Gap: Reducing Road Traffic Deaths in Latin America and the Caribbean: Action Plan 2010-2015.

¹⁹ Idem.

²⁰ Metallic compound used to bind bone fragments in a fracture.

²¹ The HEU is Honduras' public hospital of greatest complexity in the country (1,287 beds and 3,085 human resources).

²² Analysis of HEU's budget, 2017.

²³ Study on demand for and network of ECI care services. Oscar Acuna and Mauricio Marín. Honduras, 2018.

- referral center is the HEU in Tegucigalpa);²⁴ (ii) the Northern network, which handles 28% of ECI discharges, has a shortage of 116 beds; and (iii) the Western network, with 13% of the country's ECI discharges, has a shortage of 42 beds.
- 1.13 The HEU faces the biggest burden in terms of ECI treatment. The hospital is located in Tegucigalpa and handles 42% of the country's discharges and 28% of all emergencies.²⁵ As a result, the HEU has the highest ECI discharge rate in the country: 5.8 per 1,000 population,²⁶ nearly three times the national average of 2.1.²⁷ Some 23% of ECI patients discharged from the HEU are referred from other hospitals in departments in the Central-Southeast network, such as hospitals in Comayagua, Olancho, Choluteca, and El Paraíso, because they do not have sufficient installed capacity to respond to the demand for ECI care. The majority of ECI cases (78%) treated in the HEU are from the greater metropolitan area of Tegucigalpa.²⁸
- 1.14 This situation has caused ECI care in the HEU to exceed its hospitalization and surgical capacities. The numbers of beds²⁹ and operating rooms for treating ECIs are insufficient, and hospital rooms for ECI patients are beyond 100% occupancy,³⁰ which has led to the following: (i) ECI patients who require hospitalization are put into rooms not intended for this type of treatment, and meanwhile treatment is delayed for patients with other non-urgent pathologies who also require hospitalization;³¹ (ii) delays in the respective procedures and treatments; (iii) long waiting lists for ECI care, leading to greater risk of adverse events or occurrence of complications and disabilities³² resulting from lack of prompt treatment; (iv) elective surgeries get cancelled and rescheduled when the operating rooms are needed for emergency surgery; (v) long hospital stays: ECI patients in the HEU on average stay in the hospital for 21 days³³ and 15% can end up being hospitalized for up to three months³⁴ (well above the average of four days in the HEU for other pathologies and the regional average of 5.5 days of hospitalization for ECI);³⁵ and (vi) patients needing orthopedic surgery are not being hospitalized, and the waiting lists for neurosurgery (other than traumatic brain injuries) exceed 200 days.³⁶

²⁴ Tegucigalpa, the capital of Honduras, is in department of Francisco Morazán.

²⁵ Ibid.¹⁶

²⁶ The HEU is Tegucigalpa's only public hospital with 24/7 emergency services.

²⁷ Ibid.²¹

²⁸ Report on ECI classification in the country. Lenin Quezada, 2018.

²⁹ 60 beds, traumatology service. HEU.

³⁰ They are hospitalized in other wards, put in emergency room observation beds and/or are put two (or more) patients per bed.

³¹ Ibid.¹⁶

³² Length of hospital stay. Cevallos, Acevedo T. et al. Universidad Javeriana, 2014.

³³ Idem.

³⁴ Cost of care for patients who were in road traffic accidents. HEU, 2012–2015.

³⁵ Experience of two first level hospitals in the southwest region of Colombia on the implementation of the Panamerican Trauma Society International Trauma Registry. Carlos Ordoñez et al. 2012.

³⁶ Ibid.¹⁶

- 1.15 Like hospitalization and surgery services, the high demand for ECI care has exceeded HEU's emergency response capacity, such that the care provided to ECI patients is neither satisfactory nor prompt: (i) only 83% of ECI emergencies arriving to the HEU can be treated; and (ii) 40% of the emergencies that call for surgery are simply stabilized and referred to external consult for later scheduling.³⁷ Since there is insufficient space to admit all ECI patients, the emergency service is overburdened even more, and the percentage of emergency beds being used for patients with ECI exceeds 140% (158% in surgery, 151% in neurosurgery, and 125% in orthopedics),³⁸ since ECI patients remain in these services longer than necessary while they wait to be admitted (hospitalized).
- 1.16 Health facilities and hospitals that treat emergencies are not integrated into the network based on their level of complexity and response capacity. A trauma care network needs to be set up to ensure articulation and coordination among ECI care services, including defining the flows of care, the portfolio of services in each facility, the referral and response system, and coordination mechanisms.
- 1.17 Hospitals in the Central-Southeast network also need to develop their capacities, in order to improve the timeliness and quality of ECI care, while reducing referrals to the HEU (see paragraph 1.28).
- 1.18 Several institutions provide prehospital emergency care: the Honduran Red Cross, Cruz Verde [Green Cross], the Honduran Fire Department, 911, and the Permanent Contingencies Committee (COPECO). Each of these institutions has its own ambulances and personnel. The Honduran Red Cross has its own protocol for prehospital care and a training program for emergency medical technicians (EMTs) accredited by the International Red Cross, which will soon be implemented as a university program. The Cruz Verde also has a technical training school that offers short courses for paramedics. SESAL does not regulate or certify the training of prehospital emergency care personnel or protocols, so services with appropriate quality standards are not guaranteed.
- 1.19 **The country's progress in responding to ECIs.** Honduras, with Bank support through the Program of Support for Implementation of the Comprehensive Civic Coexistence and Public Safety Policy (loan 2745/BL-HO) and in close collaboration with other donors, such as the Swiss Agency for Development and Cooperation and the United States Agency for International Development, and with cooperation from Chile, Colombia, and Mexico and police academies in other Central American countries, has sustained major efforts to reduce violence in the country and thus to reduce the incidence of ECIs, including: (i) strengthening the institutional framework of the security cabinet; (ii) vetting, recruitment, and training of new police officers; (iii) improvement of the investigation system; and (iv) strengthening of the legal framework for fighting crime and impunity. As a result of these and other interventions, the homicide rate fell from 79 per 100,000 population in 2013 to 43.6 in 2017.³⁹

³⁷ Idem.

³⁸ Idem.

³⁹ Observatorio de la violencia [national violence observatory] 2017.

- 1.20 Road traffic accidents together with gunshot wounds cause more severe injuries, leading to disability and death, since they generally cause polytraumatism, traumatic brain injuries, and other consequences that require highly complex care.
- 1.21 To address this problem, the Bank has supported Honduras in implementing a Road Safety Strategy,⁴⁰ helping to reduce the accident rate. The IDB has also provided technical and financial support in the policy dialogue through road safety weeks⁴¹ held to raise awareness of the stakeholders responsible for finding a solution to the problem of lack of road safety and reducing the high rates of ECIs resulting from road traffic accidents.
- 1.22 With support from the Honduran Red Cross, the Pan American Health Organization (PAHO), and other donors, Honduras has made progress in preparing a strategic road safety plan. In addition, the Honduran traffic accident information system will be strengthened, together with the transit infractions information system, which will help the country to monitor and evaluate road safety.
- 1.23 With support from the Bank, the Honduran government has also made progress in strengthening prehospital emergency care. The National Emergency System (SNE), launched in 2015, is aimed at further improving prehospital ECI care. The SNE comprises all state organizations and NGOs involved in public protection and safety, health care, social coexistence, firefighting and other associated facilities involved in public safety or protection.⁴² SNE's actions are coordinated by the Integrated Emergency and Safety Operations Center (CIOES), through voice communication and video monitoring through the 911 call center, coordinating the entire prehospital emergency network. However, the coordination mechanism and communication system between ambulances and hospital emergency rooms described in paragraph 1.19 have not yet been implemented.
- 1.24 The International Red Cross supports implementation of effective triage⁴³ and development of processes and protocols for emergency care of ECI patients in the HEU, including training of physicians and nurses and improvements in emergency care flows, processes, spaces, and equipment.
- 1.25 **Lessons learned.** Honduras, with Bank support, has seen major improvements in the quality and management of human resources and availability of inputs and medicines in hospitals⁴⁴ through implementation of the decentralized management

⁴⁰ Road Safety Strategy: Results of first five-year period and action plan 2016-2020, IDB.

⁴¹ With support from the Public Transportation Program for the Central District (Tegucigalpa-Comayagüela) (1525/OP-HO, 2465/BL-HO); Regional Road Integration Program and Proposed Reformulation of Loan 2470/BL-HO (2470/BL-HO-2); Regional Road Integration Program II (3815/BL-HO); Urban Transport in Tegucigalpa (ATN/OC-12220-HO); Support for Sustainable Urban Mobility Plan of Tegucigalpa (ATN/FG-12497-HO).

⁴² Organizations in the national emergency system include: the Armed Forces, the National Police, COPECO, the Fire Department, the Honduran Red Cross, and Cruz Verde.

⁴³ Classification of patients based on the urgency of the care.

⁴⁴ Comparative studies by USAID (2009), World Bank (2007); and performance evaluations of SMI operations—2013, 2015, 2017.

- model.⁴⁵ SESAL's monitoring of the decentralized managers and the external evaluations have shown that the supply of physicians and nurses and the quality of care have improved significantly. The lessons learned from the decentralized management model are that using the results-based financing model, along with monitoring, supervision, and technical guidance, creates sufficient incentives to foster improvements in the quality and performance of health services. This operation will apply these lessons learned so that the new hospital will have a guaranteed supply of human resources and prompt adequate supply of inputs and medicines, and it will also apply the continuous quality improvement processes that have been implemented through the decentralized management model. These lessons learned are included in Component 2 of the program, to support SESAL in contracting a qualified manager for the hospital ECI care services using the decentralized management model.
- 1.26 Through the Mother and Child Hospital Network Strengthening Program (loan 2743/BL-HO), in 2016 and 2017 SESAL invested in improving the infrastructure in five hospitals in the country. Delays occurred during project execution, mainly due to: (i) not having previously applied the Medical-Architectural Program (MAP); and (ii) not strengthening SESAL's capacity to manage hospital construction projects. Based on these lessons learned, Component 1 of the present operation includes capacity-building for SESAL through technical support to design the MAP and contracting a specialized entity to support SESAL in managing this type of project, and preparing bidding conditions, bidding, management of contracts, and supervision of works. Before the construction work can begin, both the MAP and the specialized firm need to be in place.
- 1.27 Another lesson learned from loan 2743/BL-HO is that lack of coordination between the construction company and the equipment company meant that changes had to be made to the infrastructure when the equipment was installed. In the present operation, as part of Component 1, the turnkey contracting model will be used to simultaneously contract the construction company and the equipment firm for the trauma hospital.
- 1.28 **Proposed interventions.** The program aims at strengthening the ECI care network in the Central-Southeast region and in Tegucigalpa in particular for the following reasons: (i) current demand for ECI care has exceeded the response capacity of the country's hospital-medical infrastructure; (ii) with support from the IDB and other donors, Honduras has been investing in reducing maternal/infant morbidity and mortality and the incidence of communicable diseases, so investments to improve ECI care have lagged behind; (iii) the Central-Southeast network has the greatest need for beds in order to satisfy the demand for ECI care (shortage of 150 beds);⁴⁶ (iv) approximately 70% of ECIs in the Central-Southeast

⁴⁵ Since 2011 the IDB has supported implementation of the decentralized management model with these programs: Strengthen Decentralized Management and Supply of Health Services in Honduras (2418/BL-HO); Mother and Child Hospital Network Strengthening Program (2743/BL-HO); Program for Improved Accessibility and Quality of Health Services and Networks (2943/BL-HO); and the Program to Support the Social Inclusion Network with Priority in Western Honduras (3723/BL-HO).

⁴⁶ Ibid.²³

network are in Tegucigalpa;⁴⁷ and (v) approximately 42% of all ECI discharges in the country are from the HEU. The interventions proposed below address these challenges to improve ECI care in Tegucigalpa.

- 1.29 To strengthen the prehospital emergency care system, actions to improve the system's coordination will be carried out in conjunction with SESAL, CIOES (911), the Honduran Red Cross, and other institutions. Communication and coordination mechanisms between ambulances and hospital emergency rooms will also be implemented. Measures to ensure the quality of prehospital ECI care will be promoted, through implementation of: (i) certification mechanisms and development of human resources capacities (basic and advanced life support); and (ii) care and coordination protocols in the emergency network, ensuring prompt quality management of ECIs.
- 1.30 To address the challenge of integrating and organizing the health services that treat ECIs, a management and care model will be defined with a network-based approach, so that the system provides a high-quality, prompt, satisfactory response to demands for ECI care. The model will organize network services by level of complexity and coordinate prehospital emergency care mechanisms, with a comprehensive prevention-cure-rehabilitation approach.
- 1.31 To cover Tegucigalpa's and the Central-Southeastern region's shortage of 150 beds for ECI patients, a new trauma hospital will be equipped and put into operation. During project preparation, alternatives for meeting this need for more ECI beds were analyzed (expansion of an existing hospital or construction of a new hospital). The analysis ([optional link 4](#)) found that, given the magnitude of the shortage, a new high-complexity hospital should be built and equipped for ECI care.⁴⁸
- 1.32 Remodeling the HEU (Tegucigalpa's newest hospital, built 40 years ago with 1,000 beds) involves a major risk, as it is at least a 24,000-m² project. It would incur the costs of temporary facilities and transfers during the construction phase, reducing building operations. Economic evaluation of both alternatives under a moderate effectiveness scenario shows that the better choice is to build a new hospital rather than remodeling and/or expanding the HEU.
- 1.33 In addition, the HEU does not have capacity for more physical space; meters of construction per bed is currently 40 m², well below the minimum standard of 100 m². This means that more beds have been added to the wards, and there no longer is room to grow. Construction of a new hospital would cost less than expanding the HEU.
- 1.34 Taking into account the lessons learned in the decentralized management model referenced in paragraph 1.25 and in order to ensure efficiency, supply, and quality in the delivery of services, the new ECI trauma hospital will function under the same model. SESAL will sign a management agreement with a nonprofit hospital management organization that has experience managing this type of hospital.

⁴⁷ Ibid.¹⁶

⁴⁸ Ibid.²³

- 1.35 To improve the response capacity of ECI care in the Central-Southeast hospital network, this operation will implement telemedicine, which includes: (i) tele diagnostics; (ii) tele appointments; (iii) reading of imaging and discussion of diagnoses by radiologists; and (iv) discussion and decision-making on referrals and counter-referrals to the trauma hospital.
- 1.36 Once the hospital is up and running, one of the most important elements will be the human resources to provide the respective services. In the diagnostic assessment⁴⁹ conducted during project preparation, Honduras was found to have a good number of general practitioners, but the medical specialists in shortest supply were in neurosurgery, heart surgery, thoracic surgery, and intensive care. To ensure availability of ECI-trained specialists in the new hospital, the operation will support training human resources, in coordination with NGOs and international donors. The strategy will focus on training human resources in these specialties through two-to-three year academic programs, in parallel with construction of the hospital, so those specialists will be in place once the hospital is up and running. Innovative contracting methods will be implemented to retain personnel, such as payment by service, by medical event, and the subcontracting of services. These can be applied through implementation of the decentralized management model, especially in the specialties where there are shortages.
- 1.37 As described in paragraph 1.11, violence against women is a priority problem that must be addressed. The challenge is two-fold: (i) identify all forms of violence against women when victims receive ECI care; and (ii) provide an integrated, prompt, and appropriate response to survivors of violence. To address the problem of violence against women, an integrated comprehensive strategy will be developed between the trauma hospital and the Ciudad Mujer program (loan 3771/BL-HO),⁵⁰ so that at the hospital, all forms of violence against women are identified, injuries treated, and referrals made for women to receive Ciudad Mujer services (guidance, psychological care, legal counsel, safety planning, etc.).
- 1.38 In addition to the innovations mentioned in paragraph 1.36, the following will be implemented: (i) automated data system for treatment records; (ii) electronic file; (iii) electronic prescription; (iv) electronic ambulances-network control; and (v) development of devices for managing beds and surgery waiting lists, among other things.
- 1.39 There are gaps in the solution to the ECI problem that are beyond the scope of this operation (such as prevention of road traffic accidents) that are addressed by other Bank projects (see paragraph 1.21), and which in the future will require other interventions outside of this project's direct scope. For example: more severe penalties could be applied and traffic rules and regulations enforced; there could be mandatory use of helmets for motorcyclists, speed limits, regulations on no drinking while driving, and respect for pedestrians, etc.⁵¹

⁴⁹ Diagnosis of human resources for ECI care in Tegucigalpa for (A. Gutiérrez and M. Andino-2018).

⁵⁰ The program's objective is comprehensive improvement in the living conditions of Honduran women.

⁵¹ Report on the status of road safety in the region of the Americas. PAHO, 2015.

- 1.40 **Strategic alignment.** The operation is aligned with the 2010-2020 Update of the Institutional Strategy (document AB-3008) and strategically aligned with the development challenge of social inclusion and equality, by expanding access to quality health services and promoting gender equality. The program is also aligned with the crosscutting themes of: (i) gender equality and diversity, by incorporating protocols in situations of gender violence; and (ii) climate change and environmental sustainability, by promoting efficient, sustainable, resilient infrastructure. Approximately 65.54% of the operation's resources are invested in activities to mitigate climate change, according to the [2017 Joint Report on Multilateral Development Banks' Climate Finance](#). This operation contributes to the IDB Group's goal of increasing funding for climate change-related projects to 30% of all operations approvals by the end of 2020. It will also contribute to the Corporate Results Framework 2016-2019 (document GN-2727-6) through the greater number of people receiving care in health services and the on-the-job training of health professionals. In addition, it is consistent with the Health and Nutrition Sector Framework Document (document GN-2735-7), which recommends the rationalization of hospital functions and the integration of hospitals into care networks to improve service delivery at lower costs. The operation is also consistent with the Gender and Diversity Sector Framework Document (document GN-2800-8), with respect to health services to prevent all forms of violence against women. It is aligned with the Bank's country strategy with Honduras 2015-2018 (document GN-2796-1), which seeks to improve the population's equal access to the benefits of comprehensive health care, especially those population groups traditionally excluded for economic, cultural, geographic, or gender reasons. The operation is included in the Update of Annex III of the 2018 Operational Program Report (document GN-2915-2).
- 1.41 In addition, the program is in line with the first and second principles of the Plan of the Alliance for Prosperity in the Northern Triangle, since it focuses on improving health services and strengthening care for victims of violence in the municipios of the Central-Southeast region that are known to be sources of emigration.⁵² Lastly, the Government of Honduras has prioritized health in its 2010-2022 national plan as a strategic line to improve the population's living conditions. The program addresses this priority by improving equal access to health services for people who have suffered externally caused injuries.
- 1.42 **Coordination with other Bank operations.** The operation will be coordinated with the Ciudad Mujer project in Tegucigalpa so the new trauma hospital can identify and treat women who are victims of violence (domestic or common) and, after resolving their ECI problem, refer them to Ciudad Mujer facilities. Coordination between the hospital and Ciudad Mujer is described in greater detail in paragraphs 1.37, 1.45, and 1.48. The operation will also coordinate with the Civic Coexistence and Neighborhood Improvement Program (loan 4518/BL-HO) to set protocols and strengthen/improve comprehensive prehospital emergency care.

⁵² In all, 13 municipios included in the Plan of the Alliance for Prosperity in the Northern Triangle will benefit from this program.

B. Objectives, components, and cost

- 1.43 The operation's objective is to strengthen the supply of trauma and emergency health services in Tegucigalpa and the Central-Southeast region by building a new trauma hospital, to improve the quality of life and care of ECI patients and treatment of other pathologies by decongesting HEU services. The operation is divided into three components:
- 1.44 **Component 1. Constructing and equipping the trauma hospital and strengthening the Central-Southeast region's network of hospitals (US\$52,160,000).** The objective of this component is to construct, equip, and outfit the trauma hospital for ECI care.⁵³ This component will finance: (i) preparation of the MAP; (ii) the contracting of a firm to design and supervise the infrastructure works; (iii) through the turnkey model, the construction and equipping of the trauma hospital, which will have approximately 150 beds (to fill the current ECI care shortage in the country's Central-Southeast region) and a heliport for patient air transport; and (iv) the contracting of a firm or entity specialized in hospital infrastructure project management, to support SESAL in managing the contracting of a construction company and throughout the construction/equipping process. The hospital will incorporate energy efficient elements and sustainable management of natural resources and will be certified by Excellence in Design for Greater Efficiencies (EDGE).⁵⁴ There will also be measures and equipment to treat wastewater and manage/treat hospital solid waste (including chemical, bio-infectious, and hazardous waste).
- 1.45 To ensure efficient, high quality hospital services, the following will be financed: inclusion of technological innovations to improve administrative management, patient management, and hospital-medical care, and implementation of telemedicine (in particular in radio diagnostics, file management, and clinical care), not only in the new trauma hospital but also in Central-Southeastern hospitals and Ciudad Mujer facilities; this will improve network coordination, enable medical specialists to consult one another, and allow for storage of digital imaging and telematic transmission of digital imaging between hospitals in the network and other centers to improve diagnosis and treatment. The program will also coordinate with government institutions and NGOs to establish mechanisms that support shelter and lodging for patients/family members who have traveled from outside Tegucigalpa.
- 1.46 **Component 2. Trauma hospital/network care and management model (US\$653,200).** This component's objective is to design an emergency care model for ECI and hospital management model that will be implemented in the hospital opening / launch plan. Technical support will be financed to: (i) design and implement the care and management model for ECI and emergencies with a network-based approach; (ii) prepare the agreement, indicators, payment mechanisms, and monitoring and evaluation system for implementing the

⁵³ A hospital preinvestment study will be commissioned through technical-cooperation operation ATN/OC-16871-HO -- Preinvestment studies for construction of the Tegucigalpa-Honduras trauma hospital.

⁵⁴ EDGE certifies reductions in consumption of energy, water, energy incorporated in the materials and CO₂ emission in comparison with a building constructed according to conventional techniques.

- decentralized management model in the new trauma hospital; (iii) prepare and implement the hospital opening plan to get it up and running, which will include the management and internal organization model, portfolio of services, preparation of management systems manuals and instruments, care processes and protocols, staff training and contracting processes, and a continuous quality improvement program; and (iv) review all plans and studies on options that focus on the long-term planning and financial sustainability of the hospital.
- 1.47 To strengthen the prehospital emergency system, this component supports hiring a technical expert in prehospital care management, in order to: (i) improve inter-institutional coordination; and (ii) strengthen SESAL's capacities in the design and implementation of care protocols, standards, certification mechanisms for human resources in prehospital care, and emergency transport. Purchase of radio communication equipment for hospital emergency rooms will be supported, to improve communication between ambulances and emergency services. In addition, SESAL will receive technical support so that in coordination with the Honduran Red Cross and the universities (especially the National Autonomous University of Honduras, UNAH) it can give priority to and further develop training programs in the required specialties, so that once the hospital is up and running the necessary technical staff are in place.
- 1.48 To develop an integrated strategy between the trauma hospital and the Ciudad Mujer program to address violence against women, technical support will be provided to develop a protocol to screen for/detect assault and sexual violence against women, to be implemented in the emergency services of the HEU and the trauma hospital, including training health providers to detect injuries related to violence against women and developing a referral system to Ciudad Mujer.
- 1.49 **Administration and evaluation (US\$1,006,800).** For program administration and evaluation, the costs of the PEU within SESAL will be financed, together with the program audits, and any environmental and social management costs not covered by other sources, in particular the contracting of environmental and social personnel. Financing will also be provided to contract a firm to conduct a baseline survey and final program evaluation.

C. Key results indicators

- 1.50 **Expected impacts and results.** The program's overall impact is to improve the quality of life and meet the demand for care of patients with ECIs and other pathologies by decongesting the HEU's services; this improvement can be measured with the "hospital mortality rate from ECIs" indicator.
- 1.51 The program has two expected outcomes. First, improved access to ECI care, which has the following indicators: (i) percentage of emergency medical technicians (EMTs) certified for prehospital ECI care; (ii) days of hospitalization due to ECIs; (iii) rate of delayed ECI surgeries in emergency services; (iv) index of supply of critical ECI medicines and inputs; and (v) percentage of women victims of violence treated for ECIs who are referred to Ciudad Mujer for follow-up. Second, improved quality of hospital care for ECI patients, to be measured as the percentage of: (i) ECI patients treated in hospital emergency rooms in accordance with the standard; and (ii) post-surgery infections.

- 1.52 **Economic evaluation ([optional link 1](#))**. For the analysis, the cost and benefit of constructing, equipping, and operating the trauma hospital were projected through 2033. Economic benefits were estimated based on disability-adjusted life years saved per bed in a trauma hospital with effectiveness and effectivity parameters similar to those expected for the program’s hospital. Construction, equipment, and operating costs were estimated based on international standards, together with the country’s demand for trauma services. With a discount rate of 5%, the results reflect the following: (i) internal rate of return: 44%; (ii) net present value: US\$294,989,987; (iii) current benefit of project: US\$494,738,107; (iv) current cost of project: US\$199,748,120; and (v) cost-benefit ratio: 2.48.

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing instruments

- 2.1 The total cost of the program is US\$53,820,000, of which US\$32,292,000 will be financed with resources from the Regular Ordinary Capital and US\$21,528,000 from the Bank’s Concessional Ordinary Capital (see Table 1).

Table 1. Summary of program costs (in US\$ thousands)

Component	IDB amount	%
Component 1. Constructing and equipping the trauma hospital and strengthening the Central-Southeast region’s network of hospitals	52,160.0	97
Component 2. Trauma hospital /network care and management model	653.2	1
Administration and evaluation	1,006.8	2
Total financing	53,820.0	100

- 2.2 The program will be financed through a specific investment loan with a disbursement period of five years.

Table 2. Disbursement timetable (in US\$ thousands)

Source	Year 1	Year 2	Year 3	Year 4	Year 5	Total
IDB	260.0	5,647.7	22,427.7	19,703.3	5,781.3	53,820.0
%	0.5	10.5	41.7	36.6	10.7	100.0

B. Environmental and social safeguard risks

- 2.3 In accordance with the Environment and Safeguard Compliance Policy (OP-703), Directive B.03, Screening and classification—this has been classified as a Category “B” operation. It will mainly finance the construction of a hospital to treat ECI patients (including victims of violence) as well as communication and ambulance equipment for the national emergency system and a heliport as part of the hospital infrastructure for patient transport; these elements have a socioenvironmental impact. The site where the hospital will be built has been chosen; it was analyzed based on socioenvironmental criteria, including vulnerability to natural disasters, which is low to moderate ([required link 3](#)). The

final Environmental and Social Analysis verified that there are no human settlements that would require involuntary resettlement or displacement of informal or street vendors, nor is it within or close to indigenous territories or protected areas. A public consultation was held on 17 October 2018, and a consultation report was prepared.⁵⁵ There was broad participation, with over 200 people taking part (approximately 47% women). The community's main concerns were discussed in relation to the effects of construction, water shortages, the handling of the hospital's toxic waste, and wastewater management. Information was provided on the measures that would be taken as part of project design, and the community was informed that there would be ongoing communication on the progress of the works. Generally speaking, several of the participants viewed the project and its benefits positively. The program has an Environmental and Social Management Plan (ESMP) prepared as part of the environmental and social analysis. To ensure the relevance and effectiveness of the proposed mitigation measures, once the final hospital design has been completed and the portfolio of services established during execution, any needed updates or additions to the ESMP will be made.

- 2.4 The operation's main impacts during construction are typical of any construction project and will be managed through the specific measures presented in the ESMP. Likewise, the main socioenvironmental risks (considered to be medium) include: (i) management of hospital waste (biological, chemical, and hazardous), hospital wastewater management, and occupational health/safety during hospital construction. To mitigate these risks, International Financial Corporation guidelines will be followed for managing hospital waste, wastewater, and occupational health and safety as part of the ESMP; and (ii) potential exclusion of marginalized groups such as Afro-descendants, indigenous persons, or LGBT persons; and the contextual risks of high violence in Tegucigalpa. As a mitigation measure, nondiscrimination protocols will be incorporated into the operation, and health personnel will receive training in diversity and inclusion, self-defense in violent situations, and how to respond to gender violence, as part of the ESMP.

C. Fiduciary risks

- 2.5 The project team determined that the risk to the project associated with fiduciary financial management and procurement is medium. In terms of procurement, experience with the executing agency in previous programs has revealed its limited capacity to conduct procurement and contracting processes using IDB procedures, especially in technical aspects for infrastructure works. Keeping in mind that this operation is expected to execute a large construction project and its respective equipping, there could be delays in execution; this risk will be mitigated by maintaining specialized procurement staff in the PEU throughout the execution period, complemented with the contracting of technical personnel experienced in hospital infrastructure / equipping and a firm or entity specialized in managing hospital infrastructure projects. In addition, a monitoring system will be implemented that will cover the planning of procurements required to attain project objectives, through the Procurement Plan Execution System (SEPA) or any system that is in effect, as agreed upon with the Bank. Any such system should

⁵⁵ Available at <https://www.iadb.org/en/project/HO-L1199>.

also reflect the other planning tools (program execution plan and annual work plan). The PEU must conduct exhaustive monitoring at the planned dates in order to advance the processes and in particular to establish and approve quality technical specifications.

- 2.6 In terms of financial management, there is a medium risk of potential delays in execution related to internal control weaknesses and delays in the budgetary modification and amendment processes. To mitigate this risk, SESAL's use of the SIAFI/UEPEX (Integrated Financial Administration System/Executing Units for Externally Financed Projects) module will be strengthened in financial execution as well as in internal controls derived from its use. In addition, the level of advances for which accounts will be rendered will be set at 70%, and the executing unit will be strengthened with fiduciary autonomy and staff whose qualifications and terms of reference will be agreed upon with the Bank.

D. Other project risks

- 2.7 Other public management and governance risks identified are: (i) medium: possible changes in the country's government officials, which could alter the program's priority outputs/objectives. To mitigate this risk, the Bank will hold outreach meetings on the program's scope and alignment with national health priorities; and (ii) high: because of the limited number of health professionals in the country, it is likely there may be a shortage of health professionals to treat patients in the trauma hospital, mainly specialists and nursing professionals. To mitigate this risk, an analysis of human resources will identify the gaps, and technical support will be provided to SESAL to define and develop a human resources training strategy, including agreements with the National Autonomous University of Honduras to train specialists (mainly in neurosurgery, cardiovascular surgery, orthopedics, and intensive care) and with other universities to train technical personnel. Within three to four years, the gaps should be closed.
- 2.8 A medium macroeconomic and fiscal sustainability risk was identified: Due to the tight budget in the health sector, once hospital construction and equipping is complete, the funds required to launch the hospital and make it operational may not be allocated or prioritized, and therefore service delivery will not be able to start. To mitigate this risk, the following is planned: (i) a letter of commitment from the Honduran government to ensure the funding needed for the operation and functioning of the trauma hospital ([optional link 3](#)); and (ii) approval of a legal instrument establishing the financing source and mechanism to make the hospital operational and ensure its financial sustainability over the medium and long term.
- 2.9 **Sustainability.** The investment to construct the trauma hospital will generate increased recurring expenses of US\$17 million annually for operation of the hospital, representing a 4% increase in SESAL's current budget; Ministry of Finance authorities have made a commitment to make the corresponding budget allocation⁵⁶ ([optional link 3](#)) and a legal instrument will be approved establishing the financing source and mechanism, as proposed in paragraph 2.8.

⁵⁶ The government is analyzing possible sources, such as: approval of mandatory traffic accident insurance, public safety fee funds, or sources from specific tax revenues.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of implementation arrangements

- 3.1 SESAL will execute the program. Its Project and Investment Department will run the program and will have: an overall program coordinator, a project executing unit (PEU), and a project management technical unit (UTGP). The PEU will be responsible for the program's fiduciary functions, including managing, recording, and accounting for program resources; preparation and monitoring of the annual work plan, multiyear execution plan, procurement plan, and physical and financial monitoring. It will include a financial specialist, a procurement specialist, and a monitoring and evaluation specialist. An environmental specialist and communications or social specialist will also be hired to support the monitoring of all socio-environmental aspects of the program.
- 3.2 The UTGP will be responsible for preparation of infrastructure technical specifications, technical coordination with design, supervision, and construction firms involved in the infrastructure works and preparation of the technical specifications for the medical equipment. It will also establish coordination with Tegucigalpa City Hall and the corresponding central government offices, in managing environmental licenses and building permits and other technical aspects of the project. This unit will be strengthened by hiring technical personnel specialized in hospital construction/equipment and contracting a firm specialized in management of hospital infrastructure and equipment projects, referenced in paragraph 1.44.
- 3.3 SESAL, in coordination with the Office of the President, has actively participated in identifying the land for the site of construction, as well as coordinating with the Ministry of Finance (SEFIN) the budgetary allocation for project execution in terms of hospital design and construction, and in identifying sustainability measures for the operation and functioning of the hospital.
- 3.4 SESAL, through its Integrated Health Services Network Department (SRISS), will be responsible for opening the hospital and getting it up and running and will define the organizational structure and management and service delivery standards in the trauma hospital. SRISS' decentralized management unit will be responsible for selecting a manager and getting a management agreement signed, as well as monitoring and evaluating the agreement consistent with the program Operation Manual ([optional link 5](#)). The quality management unit, also part of SRISS, will be responsible for auditing and measuring quality in service delivery.
- 3.5 **Procurement.** The Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document GN-2349-9) and the Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (document GN-2350-9) will apply.
- 3.6 The PEU will update the procurement plan on an annual basis, or as needed, using the SEPA determined by the Bank for both planning and progress reports. Any modification to the procurement plan will be submitted to Bank for approval.
- 3.7 In accordance with fiduciary risk analysis for procurement, the supervision method will be a combination of ex post and ex ante, as described in the procurement plan. Any single-source selection of consulting services to be performed by firms or

individuals and the procurement of nonconsulting services, goods, or works will be subject to ex ante supervision by the Bank, regardless of contract amount.

- 3.8 The executing agency will be in charge of maintaining files and original supporting documentation for the procurement processes carried out with operation resources as well as record-keeping, using established procedures.
- 3.9 The SIAFI/UEPEX module will be used for program financial and budgetary execution. The cash basis of accounting will be used. For disbursements and cash flow, the PEU will open a dedicated account in the operation's name in the Central Bank of Honduras. The Bank will set the maximum amount of each advance of funds, based on projected cash flow analysis for a minimum period of six months, determined in agreement with the PEU. Bank policies that will apply in this operation include: Financial Management Policy for IDB-Financed Projects (document OP-273) and Financial Management Operational Guidelines for IDB-financed Projects (document OP-274) in their most updated versions. Because annual budget amendment and addition processes can be delayed, it is recommended that the percentage of accounts rendered for funds advances be set at 70%.
- 3.10 **Special contractual conditions precedent to the first disbursement of the loan: the program Operations Manual has been approved and is in effect under terms previously agreed upon with the Bank;** this is important to the extent that the program Operations Manual will include specific descriptions of the functions and responsibilities of the PEU and other technical groups in SESAL and also other entities involved in technical management of the operation.
- 3.11 **Special contractual conditions of execution** (i) prior to awarding the contract for the architectural design of the trauma hospital, SESAL will present the hospital preinvestment study and the MAP; (ii) before the bidding process opens for the hospital construction contract, the following will be presented to the Bank's satisfaction: (a) property title for the land, duly registered to the State; (b) approval of a legal instrument establishing the operation's financing source and mechanism; and (iii) prior to awarding the hospital construction contract, a firm or entity specialized in managing hospital construction projects will have been contracted. These conditions are justified to the extent that the preinvestment study and MAP would ensure that all stages of the hospital project (design, construction, equipping and functioning of the hospital) will take into account international standards, the demand needs, and that optimal functionality is guaranteed; and that prior to the bidding for the work, the legal certainty of the site will be documented in order to prevent delays in program execution; and mechanisms will be defined to ensure medium- and long-term financial sustainability. Lastly, contracting a firm or specialized entity to manage the project is crucial given the weaknesses identified in the executing agency for managing infrastructure projects and with the purpose of ensuring quality standards in the design, construction and equipping of the new trauma hospital.
- 3.12 **Auditing.** Project financial statements will be submitted annually, duly audited by the oversight entity or an independent audit firm acceptable to the Bank, within 120 days from close of each fiscal year or from date of the final disbursement.

B. Summary of arrangements for monitoring results

- 3.13 Standard Bank tools will be used (including the multiyear execution plan and the procurement plan) through SEPA and the monitoring of indicators in the Progress Monitoring Report system in semiannual reports prepared by SESAL.
- 3.14 A final program evaluation will be conducted. It will measure the indicators in the results matrix based on a review of a sample of medical files in the new trauma hospital and the HEU. To measure results, sample size will be determined by power analysis, in order to verify attainment of the targets set for construction of the trauma hospital. To measure the results attributable to the program, a baseline will be established in the first year of the operation. Further detail on the evaluation detail can be found in [required link 2](#).

Development Effectiveness Matrix		
Summary		
I. Corporate and Country Priorities		
1. IDB Development Objectives	Yes	
Development Challenges & Cross-cutting Themes	-Social Inclusion and Equality -Gender Equality and Diversity -Climate Change and Environmental Sustainability	
Country Development Results Indicators	-Beneficiaries receiving health services (#)*	
2. Country Development Objectives	Yes	
Country Strategy Results Matrix	GN-2796-1	Improve the equitable access of the population to the benefits of comprehensive health care, especially those of those groups traditionally excluded for reasons of economic, cultural, geographical or gender nature / Sustainable development in the Central District Reduction of marginality and improvement of urban quality in the Central District.
Country Program Results Matrix	GN-2915-2	The intervention is included in the 2018 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
II. Development Outcomes - Evaluability		
3. Evidence-based Assessment & Solution	Evaluable	
3.1 Program Diagnosis	10.0	
3.2 Proposed Interventions or Solutions	3.0	
3.3 Results Matrix Quality	4.0	
4. Ex ante Economic Analysis	3.0	
4.1 Program has an ERR/NPV, or key outcomes identified for CEA	10.0	
4.2 Identified and Quantified Benefits and Costs	2.2	
4.3 Reasonable Assumptions	3.3	
4.4 Sensitivity Analysis	1.0	
4.5 Consistency with results matrix	2.2	
5. Monitoring and Evaluation	1.4	
5.1 Monitoring Mechanisms	6.5	
5.2 Evaluation Plan	2.5	
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood	Medium	
Identified risks have been rated for magnitude and likelihood	Yes	
Mitigation measures have been identified for major risks	Yes	
Mitigation measures have indicators for tracking their implementation	Yes	
Environmental & social risk classification	B	
IV. IDB's Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget, Treasury, Accounting and Reporting, Internal Audit. Procurement: Information System, Price Comparison, Contracting Individual Consultant, National Public Bidding.
Non-Fiduciary	Yes	Strategic Planning National System, Monitoring and Evaluation National System.
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project		

Note: (*) Indicates contribution to the corresponding CRF's Country Development Results Indicator.

The objective of this program to strengthen the supply of emergency and hospitalization services in Tegucigalpa, Honduras. To achieve this objective, a new trauma hospital will be built. The new hospital will have a special focus on patients suffering from injuries of external cause (LCE). Once running, the new hospital will help to decompress the demand faced by the Hospital Escuela Universitario in Tegucigalpa. The program considers three components. The first is directed to fund to the construction and equipment and the new hospital. The second implements a model of management and patient attention and the third consists in tackling evaluation and administrative issues. The vertical logic is consistent with indicators presented in the results matrix. The results matrix includes indicators for the main outputs, outcomes and impacts. Indicators in the results matrix meet SMART criteria and include baseline values and targets, as well as the sources and means of verification that will be used to measure them. However, as note of caution, the timing of the final measurement is not explicitly stated in the text of the project. Using the information included in the Annex 2 of the project, it can be assumed that measurement would be made the last quarter of the year 2023. The project proposes an evaluation considering baseline and endline measurements, using the new hospital and the HEU as units of analysis. It is important to note that this procedure would answer how the new hospital compares to the HEU in terms of quality, but would not necessarily address if the new hospital relieves the demand faced by the HEU.

RESULTS MATRIX

Project objective:	Strengthen the supply of trauma and emergency services in Honduras' Central-Southeast region and in particular in Tegucigalpa by building a new trauma hospital, to improve quality of life and care of patients with externally caused injuries (ECI) and other pathologies through decongestion of services at the University Hospital School (HEU).
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EXPECTED IMPACT

Indicators ¹	Unit of measure	Baseline	Base year	Final target	Means of verification	Comments
Impact						
Hospital ECI mortality rate	Rate	TBD	2017	Reduce by 8.0% ²	Hospital information management unit records	Number of ECI fatalities / 100 hospital discharges for ECI

EXPECTED OUTCOMES

No.	Indicators	Unit of measure	Baseline	Base year	Final target ³	Means of verification	Comments
1	Improved access to ECI care						
1.1	% of EMTs ⁴ certified in prehospital ECI care	Percentage	0	2017	80	Certificates issued	Number of EMTs certified / total number of prehospital emergency care personnel
1.2	Days of ECI hospital stay	Days	21	2017	9 ⁵	Hospital information management unit records	Total days of hospital stay of patients discharged in the period / patients discharged in the period

¹ The final program performance evaluation study will be conducted with technical assistance contracted for that purpose.

² International evidence in The Effect of Trauma Center Designation and Trauma Volume on Outcome in Specific Severe Injuries, Ann Surg. 2015 Oct; 242(4): 512-519 cites the figure of 13.65%. Because it is a new hospital, a lower percentage is estimated.

³ The indicators and measurement mechanisms will be defined in the Indicators Manual, which will be prepared during program execution.

⁴ EMT: Emergency medical technician.

⁵ The regional average is 5.5 (paragraph 1.14 of the POD), which is expected to be reached in the hospital's third year. The target of a 9-day stay holds for the first year of the operation. See: Experience of two first level hospitals in the southwest region of Colombia on the implementation of the Panamerican Trauma Society International Trauma Registry. Carlos Ordoñez et al., 2012.

No.	Indicators	Unit of measure	Baseline	Base year	Final target ³	Means of verification	Comments
1.3	Postponement rate of ECI surgeries in emergency rooms	Rate	40	2017	10		Surgeries performed on patients in emergency services / total emergencies requiring surgery
1.4	Supply rate of essential medicines and inputs for ECI care	Rate	0	2017	90		Total of all medicine items in stock equivalent to 1 month supply or more / total number of medicine items administered
1.5	Percentage of women victims of violence treated for ECIs who are referred to Ciudad Mujer for follow-up	Percentage	0	2017	100	Registries of the referral/response system	Number of women victims of violence referred to Ciudad Mujer for follow-up / total number of women victims of violence treated per 100
2	Improvement in quality ECI hospital care						
2.1	Percentage of ECI care provided in hospital emergency rooms in accordance with standard	Percentage	0	2017	80	Hospital information management unit records	Number of ECIs treated in hospital emergency rooms according to standard / total emergencies treated in hospitals per 100
2.2	Percentage of post-operative infections	Percentage	8 ⁶	2017	6 ⁷		Number of post-operative infections / total surgeries

⁶ Gestión de Calidad y Eficiencia del Servicio de Anestesiología en los Quirófanos del Bloque Médico-quirúrgico del HEU [Quality and efficiency management in anesthesiology services in the operating rooms of the HEU medical-surgical wing] March 2018. Gissel Barahona.

⁷ Evidence indicates it should be less than four. Since the indicator will be measured after only one year of operation, it is not expected to be below four.

OUTPUTS

No.	Outputs	Unit of measure	Base year	Year 1	Year 2	Year 3	Year 4	Year 5	Final target	Means of verification
Component 1: Constructing and equipping the trauma hospital and strengthening the Central-Southeast region's hospital network										
1.1	Technical assistance for medical-architectural study	Firm	2019	0	1	0	0	0	1	Certificate of approval
1.2	Design of trauma hospital	Firm		0	1	0	0	0	1	
1.3	Construction of trauma hospital completed	Hospital		0	0	0	1	0	1	Certificate of work completion
1.4	Equipping of trauma hospital and purchase of radio communication equipment	Equipment		0	1	0	1	0	2	Certificate of receipt of equipment
1.5	Technical assistance for strengthening SESAL in design, construction and supervision of the trauma hospital	Firm		0	0	0	1	0	1	Final report
Component 2. Trauma hospital/network care and management model										
2.1	Technical assistance for an ECI and emergency care model in Honduras	Consultancy	2019	0	1	0	0	0	1	Final report
2.2	Plan for opening and starting up the hospital	Firm		0	0	0	0	1	1	
2.3	Communication/monitoring system between 911 emergency center, ambulances, hospital emergency rooms and peripheral emergency clinics	Consultancy		0	0	1	0	0	1	
2.4	Information system	Firm		0	0	0	0	1	1	
Administration and evaluation										
3.1	Baseline evaluation	Firm	2019	0	1	0	0	0	1	Final report
3.2	Final evaluation	Firm	2019	0	0	0	0	1	1	Final report

FIDUCIARY AGREEMENTS AND REQUIREMENTS

Country:	Honduras
Project number:	HO-L1199
Name:	Comprehensive Strengthening of Tegucigalpa's Trauma and Emergency Care Network
Executing agency:	Ministry of Health (SESAL)
Fiduciary team:	Nalda Morales, Financial Management; María Cecilia del Puerto, Procurement (FMP/CHO)

I. EXECUTIVE SUMMARY

- 1.1 The Bank continues to support building the public sector's institutional capacity to mitigate risk factors in project execution. Recent diagnostic assessments indicate that significant progress has been made toward good practices, mainly in modernization of the institutional framework and the functionality of the subsystems in the Integrated Financial Management System (SIAFI). These subsystems are: Budget, Treasury and Accounting through the Module for Executing Units for Externally Financed Projects (UEPEX) and the National Public Investment System (SNIPH). To date, the system has been consistently used for the financial management and accounting of the country's operations portfolio. In addition, a strategic partnership was signed in 2014 with the Tribunal Superior de Cuentas [Audit Office] (TSC) to enable use of the External Control System in financial auditing of Bank-financed operations in Honduras, or alternatively with private audit firms. In terms of the public contracting system, the country demonstrates strengths identified in the 2017 MAPS/OECD diagnostic assessment.

II. THE EXECUTING AGENCY'S FIDUCIARY CONTEXT

- 2.1 SESAL presently uses SIAFI and the UEPEX Module for financial management of operation 3723/BL-HO-2 Program to Support the Social Inclusion Network with Priority in Western Honduras. In terms of procurement, previous experience with the executing agency has revealed its low capacity, particularly in technical aspects related to infrastructure works and, bearing in mind that this operation would execute a major construction project and its respective equipping, funds should be made available to strengthen the executing agency's technical unit (UTGP) by using operations funds to hire technical personnel specialized in building / equipping hospitals of this type as well as contracting a firm that specializes in managing hospital infrastructure projects. The contracting processes will be conducted in accordance with Bank contracting policies. These processes will be published nationally in the HONDUCOMPRAS portal, the official government website for disseminating procurement and contracting opportunities.

Standard documents for national competitive bidding and shopping will be used for the procurement of goods and works, as agreed upon by the IDB and Honduras' Regulatory Office of State Contracting and Procurement (ONCAE).

III. FIDUCIARY RISK EVALUATION AND MITIGATION MEASURES

- 3.1 Based on available information, the fiduciary team determined that the project risk associated with financial management and procurement is medium. Regarding financial management, there is a risk of possible delays in execution related to weaknesses in internal control and delays in budgetary appropriations and amendments processes. A measure to mitigate this risk will be to strengthen SESAL's use of the SAIFI/UEPEX module for financial execution of resources and the internal controls arising from its use. The percentage of funds advances for which accounts must be rendered will be set at 70%, and the PEU will be strengthened with fiduciary autonomy, personnel with qualifications and terms of reference to be agreed upon with the Bank. The fiduciary arrangement for financial supervision will also include external audits to support the monitoring of fiduciary management and evolution of risks in this area.
- 3.2 Experience with the executing agency in previous programs has revealed its limited capacity to conduct procurement and contracting under IDB procedures, particularly with respect to technical aspects of infrastructure works. Since this operation would execute a major construction project and its respective equipping, there could be delays in execution. This risk will be mitigated by keeping personnel specialized in this type of procurement on the PEU staff throughout project execution. This will be complemented with the contracting of technical personnel in hospital infrastructure/equipping and a firm or entity specialized in managing hospital infrastructure projects. In addition, a monitoring system will be implemented that will cover the planning of procurement required to meet program objectives, through use of the Procurement Plan Execution System, or any system in place, as agreed upon with the Bank. It should also reflect the other planning tools (program execution plan / annual work plan). The PEU will be required to provide exhaustive monitoring at the planned dates for advancing the processes, and in particular define and approve quality technical specifications.

IV. CONSIDERATIONS FOR THE SPECIAL PROVISIONS OF THE CONTRACTS

- 4.1 With respect to fiduciary financial management, no special conditions precedent will be added to those set out in the general conditions of the loan contract.
- 4.2 **Exchange rate agreed upon with the executing agency / borrower for rendering accounts.** For purpose of Article 4.10 (b) of the General Conditions of the loan contract, the applicable exchange rate will be the rate indicated in Article 4.10 (b)(ii). In this case, the exchange rate used will be the rate in effect on the date that the beneficiary—or the executing agency or whichever person or company is delegated the responsibility of effecting payments—makes the respective payment.
- 4.3 **Financial statements and other audited reports.** The executing agency, within a period of 120 days after close of each fiscal year—1 January to 31 December

annually and during period established for financial disbursement—will present the following reports: the program’s audited financial statements, duly certified by the oversight body or independent auditors acceptable to the Bank. The final audit report will be presented within 120 days after scheduled date of the disbursement or a date determined in agreement with the Bank.

V. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

A. Procurement execution

- 5.1 The executing agency, acting through the PEU, will select, contract, and supervise program procurements, in accordance with IDB procurement policies (documents GN-2349-9 and GN-2350-9) and the provisions of the operation’s procurement plan, which will describe: (i) the contracts for works, good, and consulting services required to meet program objectives; (ii) proposed methods for procurement of goods and selection of consultants; and (iii) procedures used by the Bank to review each procurement process. For procurement planning, the executing agency will update the procurement plan on an annual basis, or as needed, using the Procurement Plan Execution System as determined by the Bank, for both planning and reporting progress. Any modification to the procurement plan must be submitted to the Bank for approval.
- 5.2 Contracts for works, good, and nonconsulting services¹ generated under the program and subject to international competitive bidding will be executed using the standard bidding documents issued by the Bank. Bidding processes subject to national competitive bidding will be conducted using country bidding documents agreed upon with the Bank and posted on the ONCAE website.
- 5.3 Contracts for consulting services generated under the program will be executed using the standard request for proposals issued or agreed to by the Bank.

B. Selection of individual consultants

- 5.4 When the executing agency does not know of suitable consultants to whom it might send invitations, the contracting of individual consultants may be solicited through local or international notices, as a means of forming the shortlist. Consultants contracted to work at the executing agency during execution may be hired for the entire execution period, provided that the Bank’s no objection was obtained for the initial selection process, without one being needed for each annual budget execution period, regardless of whether a new contract is signed for each period. This is without prejudice to the performance evaluation, which could result in cancellation of the contract and, therefore, in the need for a new request for no objection in the new process.
- 5.5 **Domestic preference:** No provision for domestic preference is made.

C. Threshold amounts

- 5.6 The thresholds for use of international competitive bidding and the international shortlist of consultants will be made available to the executing agency at: <http://www.iadb.org/document.cfm?id=EZSHARE-1132444900-11030>. Below

¹ Paragraph 1.1 of Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document [GN-2349-9](#)).

those thresholds, the selection method will be determined based on the complexity and features of the procurement or contract, which should be reflected in the procurement plan approved by the Bank.

D. Main procurements

- 5.7 The program's general procurement plan is available ([required link 5](#)) and can be summarized as follows:

Table 1. Main procurements (US\$)

Activity	Type of bidding	Estimated date	Estimated amount
Design of trauma hospital	QCBS	Q1 2019	1,500,000
Construction of hospital	ICB	Q3 2019	33,660,000
Supervision of hospital construction	QCBS		3,000,000
Equipping of hospital	ICB	Q2 2019	13,020,000
Technical assistance to strengthen SESAL	QCBS		900,000
Hospital opening/start-up plan, protocols, and optimization of flows and processes	QCBS	Q1 2020	243,200
Information system	CQS	Q1 2021	200,000
Contracting of PEU staff	NICQ	Q1 2019	466,800
Communication / monitoring system between 911, ambulances, hospital emergency rooms and peripheral emergency clinics	CQS	Q1 2020	80,000

E. Procurement supervision

- 5.8 In accordance with the fiduciary risk analysis for procurement, the supervision method will be a combination of ex post and ex ante as described in the procurement plan.
- 5.9 Any single-source selection of consulting services to be performed by firms or individuals, and the procurement of nonconsulting services, goods, or works, will be subject to ex ante supervision by the Bank, regardless of amount of contract.

F. Special provisions

- 5.10 **Measures to reduce the likelihood of corruption.** Compliance with the provisions of the policies set forth in documents GN-2349-9 and GN-2350-9 regarding prohibited practices (lists of companies and individuals considered ineligible by multilateral agencies).
- 5.11 **Other special procedures.** The Bank may, at its discretion, change the procurement supervision model, based on experience during execution and on institutional capacity updates or fiduciary visits.

G. Records and files

- 5.12 The PEU will be responsible for maintaining original files and documentation for procurement processes carried out with program resources. The program Operations Manual will document internal workflows and breakdown of functions.

VI. FINANCIAL MANAGEMENT AGREEMENTS AND REQUIREMENTS

- 6.1 **Programming and budget.** The operation's financial management will use SIAFI and the Single Treasury Account (CUT).
- 6.2 **Accounting and information systems.** The financial and accounting transactions will be supported by country system practices; the UEPEX module will be used for financial reports, disbursement requests, and accounting records. The cash basis of accounting will be used.
- 6.3 **Disbursements and cash flow.** The executing agency will open a special account at the Central Bank of Honduras in the name of the operation. The maximum amount of each advance of funds will be set by the Bank, based on the cash flow or financial plan for a minimum period of six months. As annual budgetary appropriations and amendments are subject to delay, it is recommended that the percentage of advanced funds for which accounts must be rendered be set at 70%.
- 6.4 **Internal control and internal audit.** SESAL's internal audit units support implementation of the recommendations from audit findings. To the extent that these units continue to be strengthened by the National Office for Comprehensive Development of Internal Control in Public Institutions (ONADICI), the present operation will continue to use them.
- 6.5 **External control and reports.** The operation's external audit may be performed by the country's oversight body—the Tribunal Superior de Cuentas [Audit Office]—or by a Bank-eligible outside audit firm.
- 6.6 Based on the foregoing, the following agreements have been reached:
- (i) External financial audit services will be in place to audit program annually.
 - (ii) The policies to be followed in this operation are the Financial Management Policy for IDB-financed Projects (document OP-273) and the Financial Management Operational Guidelines for IDB-financed Projects (document OP-274) in their current versions.
 - (iii) Total cost of audit services will be financed with loan proceeds. The method for selecting and contracting audit services will be based on Bank guidelines on financial reporting and audits.
- 6.7 **Financial supervision plan.** The Bank will supervise the program's financial management, monitoring the actions to be taken by the executing agency to address the external audit's observations and findings. In addition, the Bank will also conduct visits and hold meetings to monitor the fiduciary risks. The IDB financial management specialist assigned to the operation will supervise in coordination with the Project Team Leader. Disbursements will be reviewed ex post as part of the external audits.
- 6.8 **Execution mechanism.** SESAL will execute the program. Its Project and Investment Department will run the program and will have: an overall program coordinator, a project executing unit (PEU), and a project management technical unit (UTGP). The PEU will be responsible for the program's fiduciary functions, including managing, recording, and accounting for program resources; preparation

and monitoring of the annual work plan, multiyear execution plan, procurement plan, and physical and financial monitoring. It will include a financial specialist, a procurement specialist, a monitoring and evaluation specialist, and other specialists as needed. When necessary, the PEU can be strengthened in areas of procurement and finance with personnel who meet the profile and terms of reference that are acceptable to the Bank. In addition to these specialists, the executing agency's UTGP will be strengthened through the contracting of technical personnel specialized in building and equipping hospitals.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/18

Honduras. Loan ____/BL-HO to the Republic of Honduras
Comprehensive Strengthening of Tegucigalpa's
Trauma and Emergency Care Network

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Republic of Honduras, as Borrower, for the purpose of granting it a financing to cooperate in the execution of the project "Comprehensive Strengthening of Tegucigalpa's Trauma and Emergency Care Network". Such financing will be chargeable to the Bank's Ordinary Capital (OC) resources in the following manner: (i) up to the amount of US\$21,528,000, subject to concessional financial terms and conditions ("Concessional OC"); and (ii) up to the amount of US\$32,292,000, subject to financial terms and conditions applicable to loan operations financed from the Bank's regular program of OC resources ("Regular OC"), as indicated in the Project Summary of the Loan Proposal, and subject to the Special Contractual Conditions of said Project Summary.

(Adopted on __ _____ 2018)