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Public-Private Partnership (PPP) Projects

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ENVIRONMENT

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Proyecto

WASTEWATER INTERCEPTION AND TREATMENT WORKS FOR QUITO AND ANNEXED DISTRICTS - VINDOBONA

Greenfield

Project Information

General Description

Interception and canalization of discharges of the city of Quito, by two tunnel outfalls. Treatment of wastewater to achieve an effluent of optimal quality for the uses of the Guayllabamba River, downstream of the discharge. Treatment of a portion of "first-flush" rainwater at the preliminary treatment level (Quito Sewerage Combined). Three (3) hydroelectric generation plants, two (2) in line that will use raw water and one (1) located at the discharge of the WWTP that will use the treated water.

Estimated Construction Period

The estimated time of construction is 7 years.

Delegation Model

PPP

Components

The project includes three components:

- Two tunnels for the collection and conveyance of wastewater, the first one will be 28 km long and will go from La Tola to Vindobona. The second one will be 2.5 km long and will go from San Antonio de Pichincha to Vindobona.
- One Activated sludge wastewater treatment plant with step feed and biological nutrient removal
- Three hydroelectric plants with combined installed capacity of approximately 43 MW.

Scope of the project

DESIGN	✓
CONSTRUCTION	✓
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITION	
FINANCING	✓

Payback Model

User payment / State contribution
The wastewater component would represent 40% of the monthly billing for water and sewerage services.

Current Status

PLANNING	✓
STRUCTURING	
PROMOTION	

CAPEX

$792.4 million

Location

Pichincha
Quito

+Ecuador in the World
+World in Ecuador

CULTURE

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Project

VALUE ENHANCEMENT OF THE ARCHAEOLOGICAL HERITAGE FOR THE REACTIVATION AND GROWTH OF COMMUNITY CULTURAL TOURISM

Brownfield

Project Information

General Description

Archaeological tourism can cause an increase in the flow of visitors in a locality, thus producing an increase in socio-economic resources. Hence, the inhabitants of an area wish to protect their archaeological heritage and thus wish to preserve it to bring stability in the area.

We are also talking about tourism, which is an important economic sector, which moves considerable economic resources each year with the participation of many stakeholders. Cultural tourism encompasses those movements of people to satisfy the human need for diversity, aimed at raising the cultural level of individuals, facilitating new knowledge, experiences and encounters.

The communities of the Ecuadorian coast have a long history of articulation in processes of sustained management of archaeological cultural heritage such as Agua Blanca, Valdivia, Cerro de Hoja-Jaboncillo. However, this capacity has been affected by the COVID 19 pandemic, the decrease in tourism and the increased risks of affecting archaeological heritage assets has significantly reduced the economic income from cultural tourism. In this context, it´s necessary to reactivate cultural tourism and recover the community-based archaeological heritage to improve the community´s living conditions.

Components

1. Research and value enhancement of archaeological sites

2.Adequacy and protection of archaeological resources

3. Signage and messaging

4. Promotion

5. Education

6. Training

The plan is to start with the research and value enhancement component during the first six months. The adaptation and protection of the community archaeological heritage resources from the 4th to the 8th month, the signage from the 5th to the 9th month with the implementation of technological inputs, the promotion, dissemination and training with the community will be implemented from the 8th to the 12th month.

Scope of the Project

DESIGN	
CONSTRUCTION	
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITION	✓
FINANCING	✓

+Ecuador in the World

+World in Ecuador

Delegation Model

PPP

Location

Manabi and Santa Elena provinces

City/Town

Various communities

+Ecuador in the World +World in Ecuador

Payback Model

User fee / Service fee / PPD

Current status

- PLANNING ✓
- STRUCTURING
- PROMOTION

CAPEX

$ 0.26 million

OPEX

$ 0.16 million / year

Project

NATIONAL SCHOOL OF ARTS AND CRAFTS

Brownfield

Project Information

General Description

The creation of the National School of Arts and Crafts (ENAO for its acronym in Spanish) is proposed, the first action for the construction of the National System of artisan technical training in heritage that favors the articulation of training with the labor needs of the culture sector. The proposal is to recover and equip the historic building of the Borja School, which is part of the Pumapungo cultural complex, in Cuenca (Azuay).

Components

- Refurbishment and equipping of areas in Colegio Borja (5,834 m2) for the installation of classrooms, workshop areas and laboratories, administration spaces and spaces to engage with the community.
- Implementation of the academic training program in traditional arts and crafts.
- Launch of the offer of technical education services in heritage arts and crafts.
- Provision of services for the registration, diagnosis, conservation and restoration of heritage assets.
- Sale of own design production in different fields

+Ecuador in the World
+World in Ecuador

Scope of the Project

DESIGN	✓
CONSTRUCTION	
OPERATION & MAINTENANCE	
REHABILITATION / RECONDITION	✓
FINANCING	✓

Payback Model

Payment of services and courses / Production sales

Current status

PLANNING	✓
STRUCTURING	
PROMOTION	

CAPEX

$ 2.83 million

Estimated Construction Period •••

12 months

Delegation Model •••

PPP

Location •••

Cuenca
Azuay

Former Borja School

Pumapungo Archaeological Complex

+Ecuador in the World
+World in Ecuador

+Ecuador in the World
+World in Ecuador

Project

COMPREHENSIVE REHABILITATION AND VALUE OF THE RUMICUCHO HACIENDA OF SAN ANTONIO DE PICHINCHA

Brownfield

General Description

The site that the Hacienda Rumicucho occupies is located in an area that was inhabited by pre-Hispanic settlements; in 1678, the hacienda had 225 hectares.

Its current conservation conditions require an urgent intervention, which will aim to rescue the indisputable historical and heritage value, especially of its main hacienda house and surrounding sites, testimony of architectural typologies that originated in the colony and that deserve to be preserved.

The Rumicucho hacienda will be transformed into a center for creativity and innovation in the arts, as well as the headquarters of national and international artistic residency programs.

Estimated Time for Reconditioning

6 months

Delegation Model

PPP

Location

Quito Pichincha

Project Information

Scope of the Project

DESIGN	
CONSTRUCTION	
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITION	✓
FINANCING	✓

Payback Model

User payment / Service payment

Current Status

PLANNING	✓
STRUCTURING	
PROMOTION	

CAPEX

$ 0.87 million

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+Ecuador in the World
+World in Ecuador

Project

PUMAPUNGO MUSEUM OF THE THEATER INTERVENTION - CUENCA

Brownfield

Project Information

General Description

The theater is part of the Pumapungo Ancestral Museum-Park complex made up of the archaeological park of several hectares, vestiges of the majestic administrative, military and religious center that was Pumapungo.
Its current conservation conditions require urgent intervention, which will aim to preserve the theater container, through corrective maintenance work on roofs and acoustic works.
The passing of time has made the audio, video, lighting and other elements obsolete, which is why technological updating is necessary to provide optimal service according to current requirements.

Estimated Construction Period

180 days

Delegation Model

PPP

Location

Cuenca Azuay

Scope of the Project

DESIGN	
CONSTRUCTION	
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITION	✓
FINANCING	✓

Payback Model

User payment / Availability payment (PPD)

Current Status

PLANNING	✓
STRUCTURING	
PROMOTION	

CAPEX

$ 0.68 million

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SPORTS

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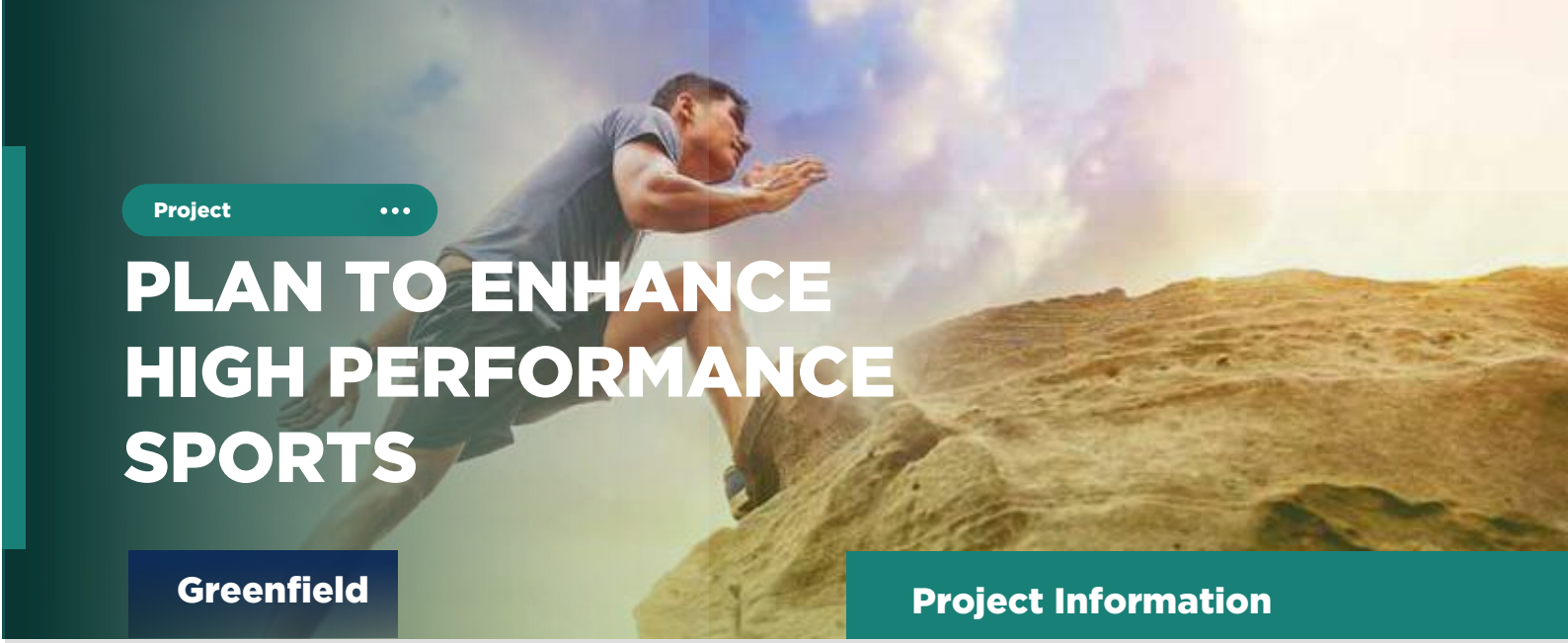

Project

PLAN TO ENHANCE HIGH PERFORMANCE SPORTS

Greenfield

Project Information

General Description

High performance sports is the pinnacle of the pyramidal structure of highly competitive sports. Its objective is to enhance the athlete's physical, mental, intellectual or technical-motor performance capacity in order to obtain the maximum performance of individual capacities in a specific sport or discipline. In order to reap sporting glories that inspire future athletes and generate positive role models, it is essential to have a structured and solid plan that ensures the necessary resources are available over time.

Delegation Model

PPP

+Ecuador in the World
+World in Ecuador

Athletes by 2022

429 Athletes

PayBack Model

Advertising promotion / Availability Payment

Current Status

- PLANNING ✓
- STRUCTURING
- PROMOTION

Growth Rate

4.7% per annum
(Up to 510 athletes)

Location

At the national level

+Ecuador in the World +World in Ecuador

Annual Investment Components

Sports reserve and development plan (detection, selection and improvement of sports development aimed at high performance).	Includes competitions, concentration, implementation and sports clothing of pre-high performance (reserve).	**$2.95 million**
High Performance sports competitions. Olympic, Paralympic, Deaf-Olympic cycle and world program.	Includes competitions, concentrations, sports apparel and implementation, insurance, high performance travel and lodging.	**$9.43 million**
Comprehensive development of the athlete.	Training for the coaching staff, ergogenic supplements, specialized care, academic training and psychosocial support.	**$0.95 million**
Periodic evaluation and monitoring.	Methodological evaluation, statistical tools, high performance anti-doping controls.	**$0.49 million**
Encouragement for athletes.	Monthly incentive for athletes and incentives for achievements.	**$3.05 million**

Estimated investment **$16.87 million**

Project

RECONDITIONING OF THE CARPUELA SPORTS TRAINING CENTER

Greenfield

Project Information

General Description

This project seeks to recondition the existing sports facilities in the CEAR of Carpuela. These facilities were conceived as a high training center, reserved for a sports elite. The objective of this reconditioning project is to enable it as a sports training center, open for the use and benefit of all citizens, especially for the populations that inhabit the north of the Ecuadorian mountains.

Potential Demand

- 41,660 direct beneficiaries
- 181,175 indirect beneficiaries (inhabitants of the canton of Ibarra).

Delegation Model

PPP

+Ecuador in the World

+World in Ecuador

Scope of the Project

DESIGN	✓
CONSTRUCTION	
OPERATION & MAINTENANCE	
REHABILITATION / RECONDITION	✓
FINANCING	✓

Payback Model

User payment / Availability payment (PPD).

Current Status

PLANNING	✓
STRUCTURING	
PROMOTION	

CAPEX

$ 4,34 million

OPEX

$ 0,9 million / year

Growth Rate

1,5% growth

Location

Carpuela Imbabura

+Ecuador in the World
+World in Ecuador

Investment Category

Structural solutions	**$1.17 million**
Non-structural buildings / Water plant	**$0.17 million**
Hydrosanitary area	**$1.10 million**
Additional works	**$1.90 million**
	$4.34 million

Project

PLAN TO PROMOTE THE DEVELOPMENT OF PHYSICAL ACTIVITY AND TRAINING SPORTS IN ECUADOR

Greenfield

Project Information

General Description

Aligned with the objectives of the Government of the Encounter, which seeks to reduce the levels of sedentary lifestyle in the Ecuadorian population, it is necessary to develop a plan that encourages the development of physical activity at the national level in all age ranges. This plan covers all the provinces of Ecuador and various age groups, and offers various recreational and competitive sports activities. This plan promotes the development of competitive sports at a formative level (children, juniors and youth), which will be the basis for identifying future talents that will potentially become high sports performers. Ecuador lacks a comprehensive plan that regulates and manages recreational sports; therefore, it is essential to create a National Recreation Plan.

Potential Demand

6,637,837 direct beneficiaries nationwide in different age ranges, from the formative stages to the elderly.

Delegation Model

PPP

Payback Model

Advertising promotion / Availability Payment (PPD)

Current Status

- PLANNING ✓
- STRUCTURING
- PROMOTION

GROWTH RATE

1.5% growth

+Ecuador in the World

+World in Ecuador

Location

At the national level

+Ecuador in the World

+World in Ecuador

Investment Category

Program "Work Against Violence and Drugs"	$0.70 million
Sports initiation school	$0.90 million
Activate Ecuador	$1.38 million
Border Binational Games	$0.30 million
Athletic festivals	$0.50 million
Recreational festivals for the elderly	$0.50 million
Children´s National Games	$1.00 million
Junior National Games	$0.90 million
National youth games	$0.80 million
Adapted National Games	$0.25 million
	$7.23 million

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Project

RECONDITIONING AND OPERATING PLAN OF ACTIVE AND TRAINING CENTERS TO PROMOTE PHYSICAL ACTIVITY

Brownfield

Project Information

General Description

The objective of this plan is to recondition and improve the existing facilities belonging to the Ministry of Sports in order to provide an adequate and safe space for citizens to practice sports. These facilities have been built several years ago and have not received in-depth maintenance for almost ten years. Part of its infrastructure and equipment is fulfilling its life cycle and in many cases are out of operation. By carrying out the necessary adaptation work, the population has access to a large number of sports venues, aimed at reducing the sedentary lifestyle among the Ecuadorian population. Additionally, it is necessary to develop and implement a management model that allows self-sustainability of the different scenarios included in this plan.

Components

Active Center:
* Central Plant
* Cuenca
* Ushimina
* Petroecuador

High Performance Complex::
* Rioverde
* Macas

Scope of the Project

DESIGN	✓
CONSTRUCTION	
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITION	✓
FINANCING	✓

Payback Model

User payment / Availability payment (PPD)

Currently there is an average return of 23% of the cost, that is, 77% of the annual operating cost is subsidized by the Ministry of Sports.

+Ecuador in the World

+World in Ecuador

Potential Demand

2,812,800 direct (inhabitants in the cantons of influence)
3,527,730 indirect (inhabitants in the provinces of influence)

Delegation Model

PPP

Location

Pichincha
Azuay
Imbabura
Esmeraldas
Morona Santiago

Facilities nationwide

Facilities in the Metropolitan District of Quito

Current Status

PLANNING	✓
STRUCTURING	
PROMOTION	

CAPEX	OPEX
$ 10,55 million	**$ 3,38** million / year

GROWTH RATE

1.5% per annum

+Ecuador in the World
+World in Ecuador

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ENERGY

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Project

COMBINED CYCLE THERMOELECTRIC BLOCK

Greenfield

Project Information

General Description

The latest update to the Electricity Master Plan (EMP) 2018-2027 provides for the creation and operation of a 400 MW Natural Gas Combined Cycle (NGCC) block by 2026 to meet forecasted demand, considering current demand growth trend, energy efficiency projects, load inputs from individual electricity distribution companies, and bridging the National Interconnected System with the Petroleum Interconnected Electric System.

The NGCC Block involves the development of a 400 (+/- 10%) MW power plant and connection up to the connection point to the National Transmission System. The power plant will use gas-fired thermoelectric generating units based on conventional combined cycle gas turbines or internal combustion engines.

Technical, legal, and commercial support for the structuring of the Public Selection Process (PSP) has been provided by the Deloitte consulting firm as part of a U.S. Department of State cooperation in Ecuador.

Project Phases

The project consists of the combined cycle power plant and its associated transmission system. The scope of the project includes studies, land acquisition, designs, permits, procurement, construction, operation, and maintenance. Natural gas supply chain activities are not part of the scope of the project; however, it will be the responsibility of the awarded bidder and subsequent concessionaire to ensure natural gas supply in the quantity, quality, and timeliness required for the plant's operation.

The Ministry of Energy and Non-Renewable Natural Resources will provide the basic electrical studies with connection alternatives in substations in the Guayaquil area for the consideration and reference of potential bidders in the preparation of their bids. The PSP documents, such as the specifications, draft contracts, schedules, and technical specifications, are also included, as well as the referential energy study of the expected demand projection for the concession period.

Scope of the Project

DESIGN	✓
CONSTRUCTION	✓
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITIONING	
FINANCING	✓

Payback Model

The project yields a fixed fee for the availability of the plant and a variable fee for the energy produced.

The applicable rate for the project will result from the best offer submitted during the Public Selection Process PSP to take place prior to the award of the concession contract to the investor.

Estimated Production

The project's energy output of up to 3,000 GWh/-year depends on the transmission conditions, as foreseen in the EMP 2018-2017.

Construction Period

Construction is estimated at 48 months with operation expected to begin by 2026, as determined in the EMP 2018-2027.

Delegation Model

Concession

Location

Guayas
Santa Elena

General Layout

The location of the project will be determined by the bidders, considering:

- Pre-feasibility or feasibility studies submitted with their bids, taking into account a connection point with the National Transmission System-SNT up to one of the electrical substations located in the Guayaquil area.
- Availability of natural gas supply facilities, such as the seaports near Guayaquil which may be considered for use of Liquefied Natural Gas-LNG reception, if applicable.

Current Status

- PLANNING
- STRUCTURING
- UNDER PUBLIC SELECTION PROCESS ✓

Financial Information

CAPEX

$600 million

OPEX

FIXED COST	VARIABLE COST
$8.7 million (annual average)	**$65.4** million (annual average)

IRR

10%-15%

CONCESSION PERIOD

25 years

+Ecuador in the World
+World in Ecuador

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Project

NON-CONVENTIONAL RENEWABLE ENERGY BLOCK (500 MW)

Greenfield

Project Information

General Description

The update to the 2018-2027 Electricity Master Plan (EMP) provides for the startup of operations of a 500 MW Block of Non-Conventional Renewable Energies (NCRE) by 2024, with an average annual energy output of 2,119.3 GWh/year to meet the forecasted demand, taking into account the current electricity demand growth trend, energy efficiency projects, the incorporation of single loads from electricity distribution companies, and the interconnection of the National Interconnected System with the Petroleum Interconnected Electric System.

The concession for each project includes the design, funding, construction, procurement, installation, set-up, commissioning, operation, maintenance, administration, and sale of electrical energy during the term of the concession contracts.

Features/Specifications

The aim of the Public Selection Process (PSP) is to concession various non-conventional renewable energy projects until a total power of 500MW is reached, including small hydroelectric plants, photovoltaic, wind and biomass generators, taking into account the following aspects:

- The global plant factor for the Generating Block
- The use of a variety of technologies, depending on the available resource, energy production, the project location, interconnection to the system, etc.
- The energy generation matrix of the Ecuadorian system
- The capacities of the different technologies to be proposed to the national and international private sector were determined based on these technical and economic criteria, as shown below:

Sub-Block	Technology	Power required per Sub-Block	Minimum power required per Project	Maximum power required per Project	Term of Concession Years
I	Hydroelectric	150 MW	3 MW	50 MW	30
II	Wind	200 MW	10 MW	100 MW	25
III	Photovoltaic	120 MW	3 MW	60 MW	25
IV	Biomass, Biogas	30 MW	1 MW	15 MW	20

Delegation Model

Concession

Estimated Startup of Operation

As of the year 2024, as established by the 2018-2027 EMP.

General Implementation

The PSP will put these capacities to the consideration of private national and foreign investors so that they can choose the projects from among the alternatives proposed. These projects will then be auctioned according to the rules established in the Specifications, which will determine the projects to be concessioned by the Ministry of Energy and Non-Renewable Natural Resources. In this regard, the awarded projects will be located throughout the continental territory of Ecuador, and their area of influence is therefore national.

+Ecuador
in the World
+World in
Ecuador

Scope of the Project

DESIGN	✓
CONSTRUCTION	✓
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITIONING	
FUNDING	✓

Payback Model

The project has a variable charge remuneration model for the energy actually produced. It should be taken into account that the project has preferential transmission to ensure purchase of its production.

The applicable project rate will be the result of the best offer submitted in the PSP to take place prior to the award of the concession contract to the investor.

Current Status

PLANNING	
STRUCTURING	
UNDER PUBLIC SELECTION PROCESS	✓

Estimated Production

2,119.3 GWh/year

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Project

NORTHEAST TRANSMISSION SYSTEM

Greenfield

Project Information

General Description

In Ecuador, the oil fields in the northeastern Amazon region self-generate their electricity from fossil fuel-based, mainly with fuel oil, diesel, and residual gas, releasing CO2 emissions into the environment in the process. Notably, the area of influence of these oil fields impacts the rainforest known for its unique flora and fauna ecosystem.

In this context, as part of the Electricity Master Plan 2018-2027, the construction of the Northeast Transmission System (NETS) is key for the Ecuadorian electricity sector´s plans. The NETS will enable interconnecting the oil fields located in the northeast part of the country to the National Interconnected System (NIS) and optimize surplus of hydroelectric energy (clean energy); therefore, reducing oil companies´ current use of fossil fuels to generate their electricity; and thereby reducing CO2 emissions into the environment.

The NETS will supply energy in a stable, reliable manner, and at the lowest cost from the National Interconnected System NIS to the Petroleum Interconnected Electric System (PIES), thus creating economic, environmental, and social benefits for the country.

Components

The NETS project includes three (3) transmission sub-systems with NIS connection points at the Shushufindi 230 kV and 138 kV substations and the Loreto 69 kV substation. The project entails the construction of six new substations and 290 km of transmission lines at voltage levels of 69 kV, 138 kV, and 230 kV. The three sub-systems are:

- Subsystem 1: Shushufindi – Edén Yuturi (EPF) – Tiputini (CPT) at a 230 kV level.
- Subsystem 2: Shushufindi – Tarapoa at a 138 kV level, Tarapoa – Cuyabeno at 69 kV, and Shushufindi (NIS) –Shushufindi (PIES) at 138 kV.
- Subsystem 3: Loreto – Oso at a 69 kV level.

Technical, legal, and commercial support for the structuring of the Public Selection Process (PSP) has been provided by the Deloitte consulting firm as part of a U.S. Department of State cooperation in Ecuador.

Scope of the Project

DESIGN	
CONSTRUCTION	✓
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITIONING	
FINANCING	✓

Payback Model

The project´s payback model yields an annual royalty, paid monthly, based on the availability of the transmission system.

The applicable project rate will be the result of the best offer submitted during the Public Selection Process PSP to take place prior to the award of the concession contract to the investor.

Estimated Production

The project anticipates transmission of 300 MW energy in average with a transformation capacity of 539.5 MVA.

Estimated Construction Period

36 months

Delegation Model

Concession

Location

Sucumbíos and Orellana

City/Town

Shushufindi, Putumayo, and Cuyabeno in Sucumbíos province
Loreto, Orellana, and Aguarico in Orellana province.

General Layout

Due to its geographical location, the area of influence of the NETS project is a rainforest area with limited access. The final route of the transmission lines, to be defined by the concessionaire, will determine the project's specific areas of influence.

Current Status

- PLANNING
- STRUCTURING
- UNDER PUBLIC SELECTION PROCESS ✓

CAPEX

$386 million

OPEX

$17.5 million
(annual average)

Financial Information

INVESTOR'S IRR

10%-15%

CONCESSION PERIOD

30 years

+Ecuador in the World
+World in Ecuador

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Project

CARDENILLO HYDROELECTRIC

Greenfield

Project Information

General Description

The Paute-Cardenillo Hydroelectric Project is the final component of the Paute Integrated Hydroelectric Complex. Located in the foothills of the Eastern Andes Cordillera, 130 km northeast of the city of Cuenca. The Paute Hydroelectric complex features the Mazar, Molino, and Sopladora power plants. Once completed, the complex will feature 596.5 MW of installed capacity, and an investments of more than USD 1.3 billion.

Components

Technical Features/Specifications of the project

- The dam will be in a Paute river canyon at coordinates N 9 710 800, E 786 371, at 2 015 m downstream from the discharge of Sopladora power station. Its morphological and geotechnical attributes are suitable for double-curvature vault dam development, which is the most economical and appropriate type of dam considering the area's specific conditions. The dam will be founded on rock mass and will rise 136.0 m at its highest point.
- The powerhouse will be located on a rock mass with the suitable geological and geotechnical conditions to enable construction of the planned underground works. The cavern stretches for 157.10 m in total length and a total of 25.0 m in total width on the main floor. The height of the cavern from the turbine discharge pit is 41.90 m and will located around the N 9 707 862 and E 789 946 coordinates.
- Mechanical equipment is mainly of 6 vertical shaft Pelton turbines with a rotation speed of 276.9 rpm and 99.75 MW of nominal power. The nominal net height of the units is 372 m, and 30 m3/s of nominal flow. Installation of a 2.0 m diameter spherical guard valve is planned at the inlet of each turbine. The total installed capacity at the generator terminals will be 588.31 MW.
- An ecological flow of 10 m3/s has been justified for the project. The resulting energy will be harnessed through construction of a small power plant at the foot of the dam equipped with a Francis-type horizontal-shaft turbine with 7.34 MW of installed capacity.

Scope of the Project

DESIGN	✓
CONSTRUCTION	✓
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITIONING	
FINANCING	✓

Payback Model

The rate applicable to the project will result from the best offer submitted in the Public Selection Process PSP to take place prior to the award of the concession contract to the investor.

Estimated Production

3.409 GWh / year

Estimated Construction Period

6 years

Delegation Model

Concession

Location

Morona Santiago and Azuay

City/Town

Santiago de Méndez and Sevilla de Oro.

General Layout

- Cardenillo Dam and its ancillary works: The dam is located on a Paute riverbed site, about 2 183 m downstream from the discharge of the Sopladora plant and at 1 558 meters downstream from where the Cardenillo Chico River feeds into the Paute River. The dam will be situated at coordinates N 9 710 796 and E 786 370. The riverbed is located at approximately 825 meters above sea level.
- Underground Powerhouse: The powerhouse is situated at around coordinates N 9 708 070 and E 790 050. Access will be from the right bank of the Paute River through an access road bordering on the Guarumales-Méndez highway that starts in the El Carmen sector.

Current Status

PLANNING

STRUCTURING ✓

PROMOTION

CAPEX

$1.3 billion

OPEX

$9 million
(annual average)

Financial Information

INVESTOR'S IRR

10%-15%

CONCESSION PERIOD

30 years

+Ecuador in the World +World in Ecuador

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Project

SANTIAGO HYDROELECTRIC PLANT

Greenfield

Project Information

General Description

Ecuador is committed to the diversification of the country's energy sources through the Ministry of Energy and Non-Renewable Natural Resources (MERNNR), as well as efficient electricity consumption. This is reflected in the Electricity Master Plan (EMP) 2018-2027 and the National Energy Efficiency Plan (NEEP), the key instruments for Ecuador´s electricity sector planning.

Under this scenario, the EMP 2018-2027 foresees the completion of the 2,400 MW (Phase 1) Santiago hydroelectric project, and the structuring of Public Selection Processes required to ensure transparent, equitable, and accessible competition to encourage the participation of national and international investors and developers, through a clear specification of the product and clear and objective procedures, as provided in Articles 25, 52, and 53 of the Organic Law of Public Electricity Service.

Components

The Santiago hydroelectric plant will have eight electrical power units with 304.10 megawatt Francis-type turbines, amounting to an installed capacity of 2,400 MW. Santiago will have an approximate throughput of 14,613 GW-hour per year.

The project consists of a 205-m-high roller-compacted-concrete arch-gravity dam with a spillway and bottom discharge integrated into the dam body; diversion works with three tunnels located on the right bank. The dam will be the largest in the country, which will enable a reservoir for daily flow regulation and collection with an approximate water capacity of 1,507 million cubic meters.

The generated power will be conveyed to a step-up transformer located in the transformer cavern, where the voltage is raised to 500 kV and then transmitted to the substation switchyard.

For generated power evacuation, it will be necessary to build two transmission lines, each with a double circuit, at a level of 500 thousand volts: The Chorrillos-Taday line with a length of 192 kilometers, and the Zamora-Pasaje line of 203 km.

Scope of the Project

DESIGN	✓
CONSTRUCTION	✓
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITIONING	
FINANCING	✓

Payback Model

The rate applicable to the project will result from the best offer submitted in the Public Selection Process PSP to take place prior to the award of the concession contract to the investor.

Estimated Production

14.613 GWh / year

Estimated Construction Period

72 months

Delegation Model

Concession

Location

Morona Santiago

City/Town

Limón Indanza, Tiwintza, Santiago, and Logroño

General Implementation

Current Status

- PLANNING ✓
- STRUCTURING
- PROMOTION

CAPEX (referential)

$3 billion

OPEX (referential)

$30.5 million
(annual average)

Financial Information

INVESTOR'S IRR

10%-15%

CONCESSION PERIOD

30 years

+Ecuador in the World

+World in Ecuador

Ministry of Production,
Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro

Juntos lo logramos

Project

SOPLADORA HYDROELECTRIC POWER PLANT

Greenfield

Project Information

General Description

The 487 MW Sopladora Hydroelectric Power Plant is the third power station in the Paute River Hydroelectric Complex. Located on the provincial border of Azuay and Morona Santiago, Sopladora collects the turbined water of the Molino power plant.

Construction of the hydroelectric plant began in April 2011 and inaugurated on August 25, 2016. From April 2016 to May 2021, Sopladora contributed 11,078.26 GWh of net energy to the National Interconnected System (NIS). Units 1 and 3 of the Power Plant began commercial operation on December 23, 2016, and Unit 2 went on line on April 1, 2017. Sopladora is currently operational.

The Government of Ecuador made a decision to recover liquidity from the resources invested in the Sopladora Power Plant to contribute to the national treasury, thereby delegating its operation and maintenance to the private sector in exchange for compensation for the right to use and exploit the existing infrastructure (upfront payment).

Components

The following are the technical characteristics of the project:

- Sopladora consists of a direct connection between the discharge tunnels of the Molino Plant and Sopladora's loading system. The direct connection consists of a flow diversion tunnel that communicates with two discharge tunnels to an underground interconnection chamber that will provide the necessary volume to ensure entry of 150 m3/sec to operate the generating system, which consists of three 165.24 MW Francis turbines housed in the underground powerhouse.
- The power plant's infrastructure is owned by the Strategic Public Company Corporación Eléctrica del Ecuador (CELEC EP), which also holds an operating license granted by the sector's governing body, allowing it to participate in the electricity sector by selling the power plant's energy output to distribution companies through power purchase and sale contracts in accordance with sectoral regulations.

Scope of the Project

DESIGN	
CONSTRUCTION	
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITIONING	
FINANCING	✓

Payback Model

The project yields a fixed fee for availability of the power plant.

The rate applicable to the project will result from the best offer submitted during the Public Selection Process PSP to take place prior to the award of the concession contract to the investor.

Estimated Production

2,586 GWh / year

Delegation Model

Concession

Location

Azuay
Morona Santiago

City/Town

Sevilla de Oro and Santiago de Méndez

General Layout

The Paute Sopladora hydroelectric plant has national coverage. Located in the lower basin of the Paute River, in the southern part of Ecuador, 130 km from Cuenca to the northeast, in the foothills of the Eastern Andes Cordillera, between 1314.51 and 958 m.a.s.l. (meters above sea level) downstream from the Paute-Molino power plant. Coordinates 9 713 749.894 N and 782 082.831 E.

The Paute-Sopladora hydroelectric plant begins at the discharge site of the Paute-Molino hydroelectric plant and ends at the discharge point into the Paute River itself, at its confluence with the Cardenillo Chico River. It is situated between Amaluza Parish, Sevilla de Oro Canton, Azuay Province, and Bomboiza Parish, Santiago de Méndez Canton, Morona Santiago Province.

Access to the project is through the Cuenca-Paute-Sevilla-Guarumales-Méndez highway and the Azogues-Rivera-Mazar-San Pablo highway, the alternate route that was built for the Mazar power plant.

Current Status

- PLANNING
- STRUCTURING ✓
- PROMOTION

CAPEX

$1 billion

OPEX (referential)

$12.9 million
(annual average)

Financial Information

INVESTOR'S IRR

10%-15%

CONCESSION PERIOD

25 years

+Ecuador in the World
+World in Ecuador

Ministry of Production,
Foreign Trade, Investments and Fisheries

República del Ecuador
Gobierno del Encuentro
Juntos lo logramos

Project

TERMOGAS MACHALA POWER PLANT

Greenfield

Project Information

General Description

The Termogas Machala Power Plant operates with a power of 256.4 MW using natural gas from the Amistad field. Its production is currently limited by the low availability of gas, which has been gradually declining over the last few years. CELEC EP contracted the plant's expansion through a combined cycle project consisting of two phases: The first is the acquisition, installation, and startup of a gas turbine with a 77 MW electric generator, and the second involves the conversion of three (3) gas turbines to be operated in combined cycle mode by incorporating a 110 MW steam turbine. Due to breach of contract by the contractor company, the contract was unilaterally terminated in 2107 and the project was left unfinished.

In this regard, the project's objective is the operation and maintenance of the existing infrastructure and the expansion of the plant to incorporate an additional 187 MW.

Features/Specifications

Located in the Bajo Alto area in El Oro Province, the Termogas Machala Power Plant operates with a power of 256.4 MW using natural gas from the Amistad field.

The plant consists of:

- 2 6FA Units (GE), one 68.8 MW and the other 67.6 MW: 136.4 MW
- 6 TM 2500 Units (GE-Aeroderivatives), 20 MW each: 120 MW

The combined cycle project consists of two phases: First, the acquisition, installation, and startup of a gas turbine with a 77 MW electric generator, and the second involves the conversion of three (3) gas turbines to be operated in combined cycle mode by incorporating a 110 MW steam turbine, with which the plant would reach a total capacity of 443.4 MW.

The bidding company will be responsible for:

- 2 6FA Units (GE), one 68.8 MW and the other 67.6 MW: 136.4 MW 6 TM 2500 Units (GE-Aeroderivatives), 20 MW each: 120 MW Making the necessary investments to complete equipment supply, construction works and missing assemblies in the third 6FA turbine, heat recovery units, steam turbine, cooling system, BOP, electrical and control systems, and transmission line;
- Developing the infrastructure, logistics, and reliable liquified natural gas supply to deliver sufficient fuel for plant operation;
- Operating and maintaining the Machala thermoelectric plant under a 25-year concession contract.
MW.

Scope of the Project

DESIGN	✓
CONSTRUCTION	✓
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITIONING	✓
FINANCING	✓

Payback Model

The project yields a fixed fee for the availability of the plant and a variable fee for the energy produced.

The applicable rate for the project will result from the best offer submitted during the Public Selection Process PSP to take place prior to the award of the concession contract to the investor.

Estimated Production

1,100 GWh / year

Estimated Startup of Operation

The plant is currently in operation, and its expansion is projected for entry into operation in 2024, as set out in the 2018-2027 EMP

Delegation Model

Concession by private initiative

Location

El Oro

City/Town

El Guabo

General Layout

The combined cycle project will be situated at the Termogas Machala Power Plant facilities in the Bajo Alto sector of El Oro Province, El Guabo Canton, Tendales Parish, with access from the Guayaquil-Machala national highway.

The project site coordinates are:

N: 9955450.038 E: 624721.464 EL: 2.924

Current Status

- PLANNING
- STRUCTURING ✓
- PROMOTION

CAPEX

$600 – 650 million

Financial Information

INVESTOR'S IRR

10%-15%

CONCESSION PERIOD

25 years

+Ecuador in the World

+World in Ecuador

Ministry of Production, Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro | Juntos lo logramos

OIL & GAS

Ministry of Production,
Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro

Juntos lo hacemos posible

Project

INTRACAMPOS II BIDDING ROUNDS

Greenfield

Project information

Project Details

Six (6) oil blocks have been identified for the future "Intracampos II Bidding Round". They are exploratory projects in the northeastern part of the country where national production is concentrated and the large producing fields operated by Public Company EP PETROECUADOR, and private multinational companies are located.

Subsoil information such as 2D and 3D seismic survey data is available for two (2) of the oil blocks where wells have been drilled. In addition, information is available on the nearby area, road systems, rivers, and pipelines.

Real commitments are being sought for exploration activities (re: investment at the risk of the private company) for discovery of new reserves that would increase the country's oil assets.

Contract Term

In accordance with Article 23 of the Hydrocarbons Law, the exploration period will last up to four (4) years for all types of contracts involving crude oil exploration and development, extendable to up to two (2) additional years upon justification by the contractor and authorization from the Ministry of Energy and Non-Renewable Natural Resources.

The crude oil exploitation period, in all types of contracts, may last up to twenty (20) years, extendable by the Ministry of Hydrocarbons, according to what is established in the area's development plan and whenever it suits the interests of the State.

Delegation Model

Participation Contract

Scope of the Project

- EXPLORATION ✓
- DEVELOPMENT ✓
- TRANSFER TO THE STATE ✓

Total Prospective Resources

107 MMBbls

Average daily production

18,000 a 22,000

Bbl/day

Location

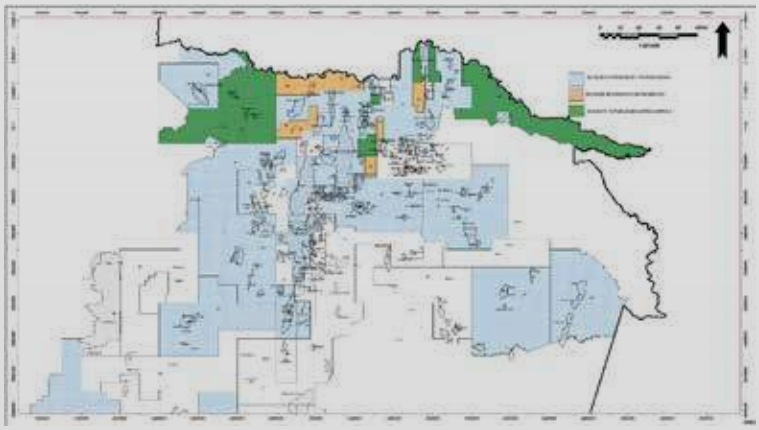
Northeastern area of Ecuador

Province

Sucumbíos

Town

Lumbaqui, Puerto Carmen, etc.



Payback Model

The percentage of participation is defined in the contracting bases, considering variables such as price and production volume.

Current Status

- PLANNING
- STRUCTURING ✓
- PROMOTION

CAPEX (referential)

$731.93 million

OPEX (referential)

$1,320.94 million

CAPEX + OPEX:

$2,052.86 million

CONCESSION PERIOD

24 YEARS

+Ecuador in the World

+World in Ecuador

Ministry of Production,
Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro

Juntos lo logramos

Project

DESIGN, CONSTRUCTION AND OPERATION OF A HIGH CONVERSION REFINERY IN THE COASTAL REGION OF ECUADOR

Greenfield

Project information

General Description

Tender for a High Conversion Refinery, which will attract the interest of national and foreign companies to conduct the design, construction and operation of a modern refinery in the coastal region of Ecuador.

The refining capacity is 300,000 BLS / day.

Components:

60% of the country's supply is currently imported. With the new high-conversion refinery, it is expected to cover part of the demand with fuels with the Euro 5 Standard.

Delegation Model

PPP

Location

Coastal Region of Ecuador

Scope of the Project

DESIGN	✓
CONSTRUCTION	✓
OPERATION AND MAINTENANCE	✓
FINANCING	✓

Current Status

PLANNING	✓
STRUCTURING	
PROMOTION	

CAPEX + OPEX:

$ 4.5 billion

+Ecuador in the World

+World in Ecuador

Ministry of Production, Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro | Juntos lo logramos

Project

BLOCK 60 SACHA TENDER

Greenfield

Project Details

It is a project that aims to tender Lot 60, Sacha, who has the following estimated figures as of December 2020

POES: 5227 MMBLS.
Proven, probable and possible reserves: 367 MMBLS.
Average daily production 65,000 Bls / day Facilities: secondary pipelines to SOTE and OCP. Raw quality: 26 ° API average

Firm commitments are expected from exploration and exploitation (investment at the company's risk private) for the discovery of new reserves and production that would increase the oil inheritance of the country

Contract Term

In accordance with Article 23 of the Hydrocarbons Law, the exploration period will last up to four (4) years for all types of contracts involving crude oil exploration and development, extendable to up to two (2) additional years upon justification by the contractor and authorization from the Ministry of Energy and Non-Renewable Natural Resources.

The crude oil exploitation period, in all types of contracts, may last up to twenty (20) years, extendable by the Ministry of Hydrocarbons, according to what is established in the area's development plan and whenever it suits the interests of the State.

Delegation Model

Participation Contract

+Ecuador in the World
+World in Ecuador

Ministry of Production, Foreign Trade, Investments and Fisheries

Project information

Location

Northeastern area of Ecuador

Province
Francisco de Orellana

Town
La Joya de Sacha

Scope of the Project

- EXPLORATION ✓
- DEVELOPMENT ✓
- TRANSFER TO THE STATE ✓

Current Status

- PLANNING ✓
- STRUCTURING
- PROMOTION

CAPEX:

$2.887,00
million

PROJECT HORIZON

24 YEARS

República del Ecuador
Gobierno del Encuentro
Juntos lo logramos

Project

ASSOCIATED GAS CAPTURE

Greenfield

General description:

This project aims to capture associated gas to be used as Liquefied Petroleum Gas (LPG), natural gasoline and residual dry gas for electricity generation. The industrialization of these components implies savings for the State of approximately USD 400 MM per year due to the reduction in imports of LPG and Diesel for electricity generation. In addition, this project drives to accomplish the resolution issued by the Provincial Court of Sucumbios eliminating the burners on compliance with environmental criteria.

Each cluster is opened to receive investment proposals to integrate new technologies for capturing gas with the aim of increase production.

Management model:

Specific Services Contract

Location

Northeastern Ecuador

Province

Sucumbíos, Orellana

+Ecuador in the World

+World in Ecuador

Ministry of Production, Foreign Trade, Investments and Fisheries

Project Information

Scope of the Project

DESIGN	✓
REHABILITATION / RECONDITIONING	✓
OPERATION & MAINTENANCE	✓
FUNDING	✓

Current status

PLANNING	
STRUCTURING	✓
PROMOTION	

CAPEX:

US$ 500 MM

PROJECT HORIZON

10 YEARS

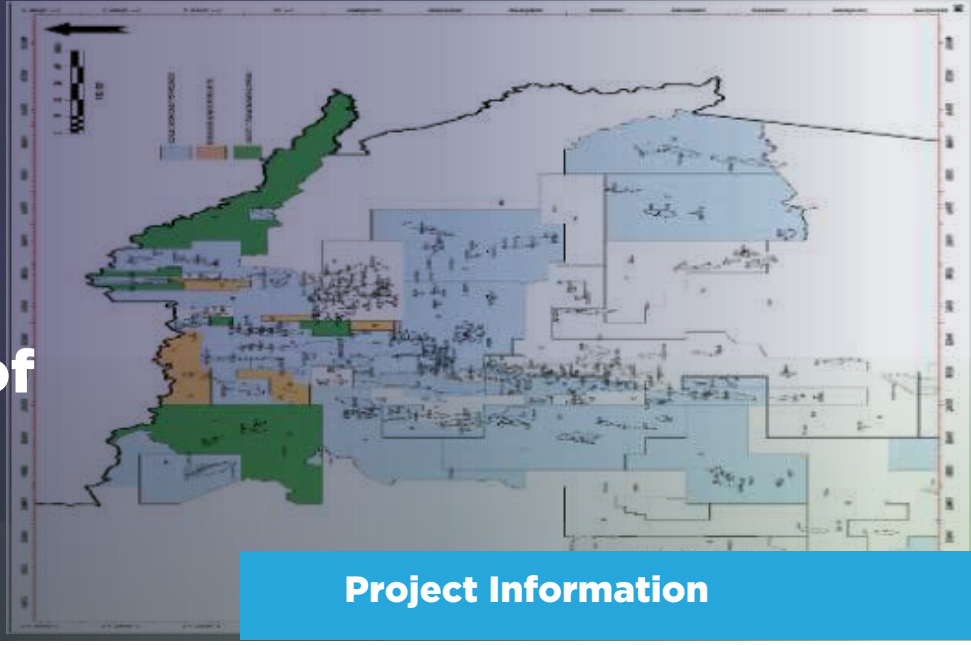
República del Ecuador

Gobierno del Encuentro

Juntos lo hacemos posible

PROJECT

Round for the development of 20 oilfields



GREENFIELD

Project Information

General information

Increase the production capacity byway of developing 20 oil fields across the Amazon Region. The objective is to increase production up to approximately 30 MBPD.

Fields: Tumali, Dumbique, Frontera, Mono, Pata, Yanahurco, Araza, Paka Sur, Coca Payamino, Palmar Oeste, Cobra, Palmeras Norte, Quinde, Bermejo, Tuich, Tapi_TeTeTe, Yanaquincha, Tipischca, Lobo, Gacela.

Contract time:

In accordance with the provisions of article 23 of the Hydrocarbons Law, for all types of contracts related to the exploration and exploitation of crude oil, the exploration period will last up to four (4) years, extendable up to two (2) more years, prior justification from the contractor and authorization from the Ministry of Energy and Mines.

The period of exploitation of crude oil, in all types of contract, may last up to twenty (20) years, extendable by the Ministry of Energy and Mines, according to what is established in the development plan of the area and whenever it suits the interests of the State.

Management model:

Specific Services Contract

Location:

Northeastern Ecuador - Sucumbios, Francisco de Orellana

Scope of the Project

EXPLORATION	✓
EXPLOITATION	✓
TRANSFER TO THE STATE	✓

Current status

PLANNING	✓
STRUCTURING	
PROMOTION	

CAPEX

US$ 1,200 MM

Remuneration model

The companies, once qualified, will make their exploratory investment offers and also their economic offer, taking into account the participation quota of the Ecuadorian State, for each barrel produced.

Project horizon

24 years

+Ecuador in the World

+World in Ecuador

Ministerio de Producción, Comercio Exterior, Inversiones y Pesca

República del Ecuador

Gobierno del Encuentro

Juntos lo hacemos posible

Project

SOUTHEASTERN OILFIELDS ROUND

Greenfield

General description

Five (5) oil blocks have been identified for the "Southeaster Oilfields Round", which correspond to exploratory areas that are located in the southeastern part of the country.

The areas have subsoil information such as 2D seismic, exploratory wells and structural maps, studies; there are no roads system, pipelines nearby.

It is expected to obtain firm commitments for exploration activities (investment at the risk of the private company) for the discovery of new reserves that would increase the country's oil assets.

For each of the blocks, minimum investment plans for development and exploration must be defined.

Contract time

In accordance with the provisions of article 23 of the Hydrocarbons Law, for all types of contracts related to the exploration and exploitation of crude oil, the exploration period will last up to four (4) years, extendable up to two (2) more years, prior justification from the contractor and authorization from the Ministry of Energy and Mines.

The period of exploitation of crude oil, in all types of contract, may last up to twenty (20) years, extendable by the Ministry of Energy and Mines, according to what is established in the development plan of the area and whenever it suits the interests of the State.

Management model

Participation Contract

Location:

Southeastern Ecuador

Province

Pastaza

Project Information

Scope of the Project

EXPLORATION	✓
EXPLOITATION	✓
TRANSFER TO THE STATE	✓

Current status

PLANNING	✓
STRUCTURING	
PROMOTION	

CAPEX:

US$ 4,750 MM

PROJECT HORIZON

24 YEARS

+Ecuador in the World

+World in Ecuador

Ministry of Production, Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro | Juntos cumplimos

Project

ESMERALDAS REFINERY

BROWNFIELD

Project Information

General Information

The private company will carry out the necessary studies and investments, at its own risk, to improve fuel quality and reduce emissions, with the implementation of a high-conversion train.

Currently, 39% of waste is produced, through investments the degree of complexity of the refinery would be increased, obtaining better quality derivatives with higher value in the market and minimizing the amount of waste.

Management model:

Specific Services Contract

Current refining capacity

110,000 bpd.

Location

Esmeraldas

Scope of the Project

DESIGN	✓
REHABILITATION / RECONDITIONING	✓
OPERATION & MAINTENANCE	✓
FUNDING	✓

Current status

PLANNING	
STRUCTURING	✓
PROMOTION	

CAPEX

US$ 2,700 MM

Financial information

Project horizon

20 years

+Ecuador in the World

+World in Ecuador

Ministerio de Producción, Comercio Exterior, Inversiones y Pesca

República del Ecuador

Gobierno del Encuentro

Juntos lo hacemos posible

INFRASTRUCTURE

Ministry of Production,
Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro

Juntos lo hacemos posible

Project

LOJA - CATAMAYO

Brownfield

Project Information

General Description

Improvement of the national road network's service level and connectivity between the cities of Loja and Catamayo and the southern part of the country, as well as connection with the City of Catamayo airport in Loja Province, ensuring road safety and the provision of complementary services to promote the economic, productive, and tourist industry growth in the sector.

The project consists of an expansion to four lanes throughout the corridor, a toll station, road maintenance, and operation over the entire 30-year delegation period, taking into account an approximate length of 34.35 km in the E-35 road corridor.

Features/Specifications

Section 1. Land Terminal – El Plateado Circle – Length: 4.15 km.

Section 2. El Plateado Circle – Catamayo Toll Station – Length: 27 km.

Section 3. Catamayo Toll Station – La Botella Circle – Length: 3.2 km

Routine Maintenance and Periodic Maintenance

Delegation Model

PPP

Estimated Construction Schedule

3 years

Initial AADT (referential)

8700

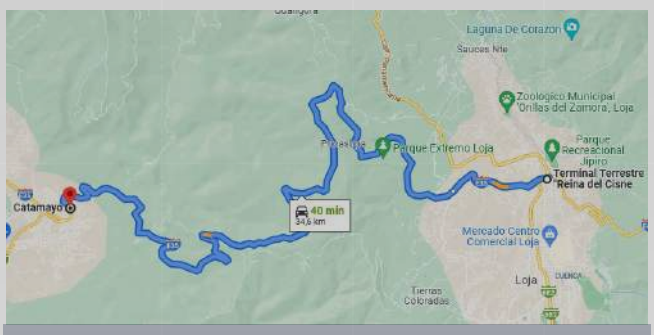
Average Growth Rate

5.90% Light, 2.93% Bus, 2.88% Truck

Location
Loja

City/Town

Loja and Catamayo



+Ecuador in the World
+World in Ecuador

Scope of the Project

DESIGN	✓
REHABILITATION / RECONDITIONING	✓
OPERATION & MAINTENANCE	✓
FUNDING	✓

Remuneration Model

Toll rate for road users

Current Status

PLANNING	✓
STRUCTURING	
PROMOTION	

CAPEX (referential) MM

$86,08 million

OPEX (referential) MM

$118,21 million

CAPEX + OPEX

$204,29 million

Financial Information

Concession Period

30 years

Project

MONTECRISTI - LA CADENA

Brownfield

Project information

General Description

"The project comprises the design, financing, rehabilitation, operation, and maintenance of the La Cadena – Jipijapa road corridor to ensure that this high-traffic road is decongested and thus significantly reduce the travel times of the users of the road, which connects the provinces of Manabí and Guayas.

It consists of an expansion to four lanes, a food plaza, two toll stations, road maintenance (including the Guayabal – La Pila section), and operation throughout the 30-year delegation period, involving an approximate length of 103.85 km."

Features/Specifications

- Toll station 1: Quimis sector
- Toll station 2: La Esperanza sector
- Expropriations
- Acquisition of Service Equipment, Final Studies
- Expansion from 2 to 4 Lanes (km 11+147 to km 12+706) L = 1.56 km.
- Expansion from 2 to 4 Lanes (km 20+324 to km 28+300) L = 7.98 km.
- Expansion from 2 to 4 Lanes (km 31+071 to km 37+920) L = 6.8 km.
- Expansion from 2 to 4 Lanes (km 76+040 to km 78+140) L = 2.10 km.
- Expansion from 2 to 4 Lanes (km 80+324 to km 81+500) L = 1.22 km.
- Sancán Food Plaza
- Routine Maintenance and Periodic Maintenance

Scope of the Project

DESIGN	✓
REHABILITATION / RECONDITIONING	✓
OPERATION & MAINTENANCE	✓
FUNDING	✓

Payback Model

Toll rate for road users

+Ecuador in the World

+World in Ecuador

Delegation Model

PPP

Estimated Construction Schedule

3 years

Initial AADT (referential)

9500

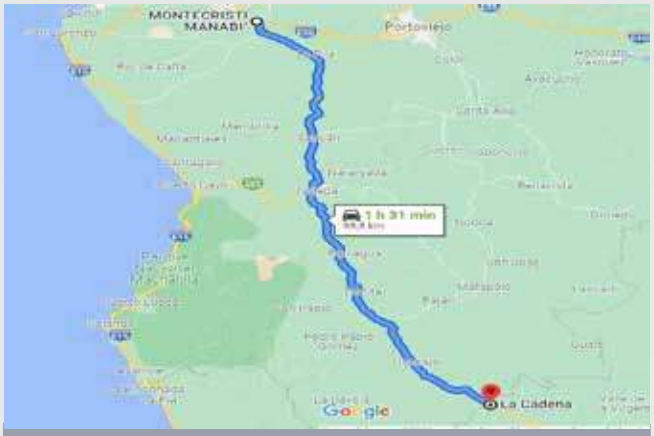
Average Growth Rate

4.16% Light, 2.38% Bus, 3.25% Truck

Location:
Manabí

City/Town

Montecristi



+Ecuador in the World
+World in Ecuador

Current Status

PLANNING ✓

STRUCTURING

PROMOTION

CAPEX (referential) MM

$63,91 million

OPEX (referential) MM

$283,61 million

CAPEX + OPEX

$347,52
million

Financial Information

Concession Period

30 years

Project

CUENCA - MOLLETURO - EL EMPALME

Brownfield

Project information

General Description

The Cuenca - Molleturo - El Empalme road project contemplates an approximate length of 119 km corresponding to the RVE E582 highway corridor. It consists of the rehabilitation of the entire corridor, toll stations, complementary services, Operation and Maintenance throughout the delegation period.

Delegation Model

PPP / Concession

Estimated Time for Reconditioning

12 months

Initial ADTT (referential)

4155

Location:
Azuay-Guayas

Scope of the Project

DESIGN	
REHABILITATION / RECONDITIONING	✓
OPERATION & MAINTENANCE	✓
FUNDING	✓

Payback Model

Toll rate for road users

Current Status

PLANNING	✓
STRUCTURING	
PROMOTION	

+Ecuador in the World

+World in Ecuador

Ministry of Production, Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro

Juntos lo logramos

Project

GUAYAQUIL SOUTH VIADUCT

Greenfield

Project information

General Description

Design, financing, construction, operation and maintenance of a new bridge over the Guayas River. The viaduct will optimize travel times, thereby generating a decrease in traffic congestion in the city of Guayaquil and improving connectivity with the city of Durán and the Puerto Inca-Naranjal highway. The viaduct project will facilitate the logistics of Ecuadorian exports with the Ports of Guayaquil and Puerto Bolivar.

Phases

4- and 2-lane highways divided into 4 sections; Bridge over the Guayas River (4 lanes, L = 3.44 km.), Referential Length of the project: 44 km

REFERENTIAL SECTIONS:

Section I (7.60 km): Av. Cacique Tomalá to the start of the Viaduct over the Guayas River

Section II (3.44 km): Viaduct over the Guayas River (includes access roads)

Section III (9.22 km): End of the Viaduct over the Guayas River to the Intersection bifurcation to the Durán – Boliche road.

Section IV (12.10 km): Connection to the Naranjal road (E-25)

Section V (11.70 km): Connection to the Durán – Boliche road

TOLL STATIONS: The bidder will determine the placement of the toll stations that will ensure recovery of investments.

TOLL RATE: The bidder must submit its rate scheme according to the vehicle categorization in force.

PROVISION OF SERVICES: Medical Assistance, Road Assistance, Optional Services.

EXPROPRIATIONS: The bidder must submit a referential assessment of the expropriation budget.

STATE CONTRIBUTION: The bidder is to determine whether a state contribution will be necessary, according to its technical and financial/economic analysis.

Scope of the Project

DESIGN	✓
CONSTRUCTION	✓
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITIONING	
FUNDING	✓

PayBack Model

Toll Rate

Current Status

PLANNING	✓
STRUCTURING	
PROMOTION	

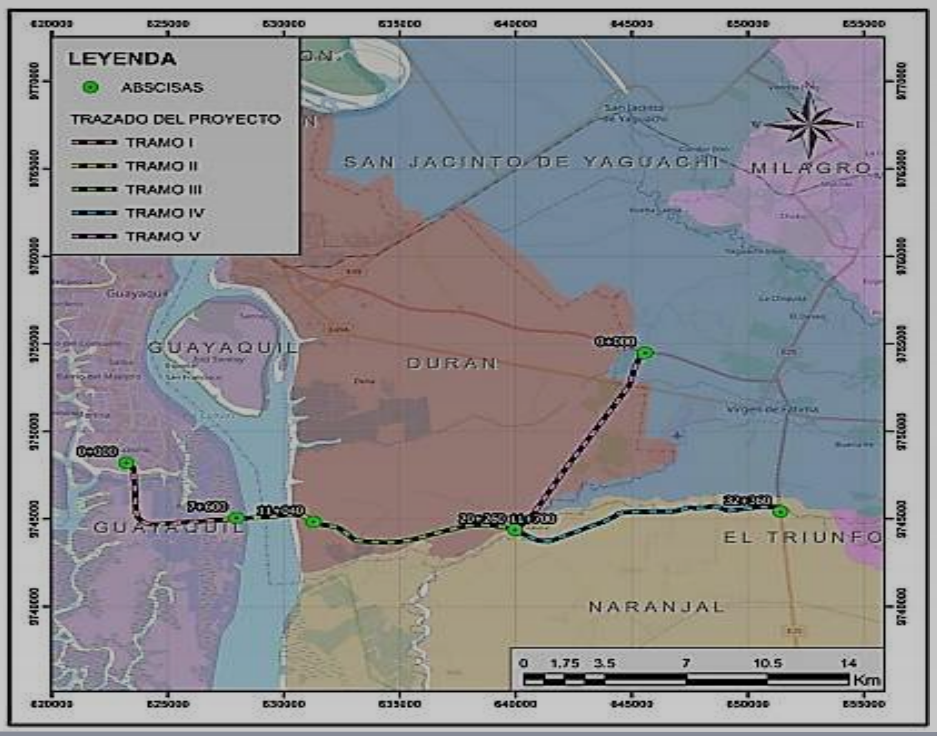
Delegation Model

PPP

Location
Guayas

City/Town

Guayaquil



+Ecuador in the World
+World in Ecuador

Ministry of Production,
Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro | Juntos lo logramos

Project

REHABILITATION, CONSTRUCTION, OPERATION AND MAINTENANCE OF THE NATIONAL RAILWAY SYSTEM

Brownfield

General Description

The objective of the project is the RECONDITION and rehabilitation of the railway system for the transport of tourists, mass transport of people and cargo, through approximately 965.6 km of existing railway line.

Contribute to the change of the energy matrix, using trains with an electric traction system to favor the decarbonization of the transport system. The aim is to align the country with the commitments acquired internationally regarding climate change and sustainable development.

Current operational situation

* 118.92 km - Operational
* 387.28 km - Non-operational
* 459.60 km - Out of serviceo

+Ecuador in the World

+World in Ecuador

Project information

Scope of the Project

DESIGN	✓
CONSTRUCTION	
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITIONING	✓
FUNDING	✓

PayBack Model

Toll rate for road users.

Current Status

PLANNING	✓
STRUCTURING	
PROMOTION	

* 53 Locomotives
* 31 Operating Stations
* 61 Registered Trademarks

Location

At the national level

City/Town

Durán, Yaguachi, Milagro, Naranjito, Bucay, Tambo, Cuenca, Alausí, Guamote, Colta, Guano, Riobamba, Mochas, Cevallos, Latacunga, Ambato, Salcedo, Mejía, Quito, Cayambe, Otavalo, Antonio Ante, Ibarra and San Lorenzo.

Province

Carchi, Esmeraldas, Imbabura, Pichincha, Tungurahua, Chimborazo, Cañar, Azuay, Guayas.

State of the Road in Liquidation

Project

HEAVY CARGO VEHICLE WEIGHT, DIMENSION, AND TRAFFIC COUNT CONTROL

Brownfield

Project information

General Description

Design, financing, provision, implementation, operation, and maintenance of a weight, dimension, and traffic count control system for heavy-duty vehicles on the State Road Network to safeguard road infrastructure and prevent premature damage to the pavement structure and provide an integrated solution for control on the state road system.

The project consists of regulating and controlling the National Weights and Dimensions System through determination of weight and maximum permissible dimensions in accordance with the National Table of Weights and Dimensions. The weight, dimension, and traffic count control system for cargo vehicles will allow all processes to be carried out in motion, without vehicles having to stop, thus improving mobility and saving time.

The system must coordinate operations with control entities, according to law and the area of responsibility, through monitoring stations or means of immediate notification of non-compliance to restrict circulation due to excessive overload or to vehicles requiring special circulation permits. Additionally, it must interconnect information to identify offenders due to non-compliance with other laws to prevent them from evading fine payments.

Features/Specifications

Means of identifying vehicles that have to pass through the weighing scales (ALPR camera systems for vehicle and license plate identification and differentiation.

Automatic vehicle classification regarding allowed weights and dimensions in accordance with a weights and dimensions table.

Systems for quantifying heavy vehicle traffic.

Mobile or transferable frames between tolls to detect offenders and count heavy vehicle traffic.

A visual means of notification of entry into the weighing platform.

Weigh-in-motion scales.

Weighing capacity from 3.5 tonnes to 80 tonnes (Accuracy range 1%–2% weights per axle and total).

Maximum dimensional verification up to 30 m in length, 4.5 m in width, and 5.5 m in height. (Accuracy range 1%–3%).

Protection systems for equipment to measure overloaded vehicles at high speeds.

Fixed signage at weighing stations.

Issue of duly supported penalty notices through regular electronic channels.

Website for viewing violations and providing links to the authorized payment channels.

Delegation Model

PPP

Number of Heavy Vehicles (referential)

70027 heavy-duty vehicles nationwide with a range of up to 134,022 vehicles

Average Growth Rate

1% per year

Location

Nationwide

City/Town

The tentative implementation of the 30 sites (lanes) of dynamic weight and dimension control includes the location of current and additional stations, stations at airports, ports, border crossings, and logistics modes throughout the State Road Network referenced in the logistics corridors.

Scope of the Project

DESIGN	✓
CONSTRUCTION	✓
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITIONING	
FUNDING	✓

Remuneration Model

Amounts collected for issue of Operating Certificates issued by the Ministry of Transportation and Public Works (MTOP)

Estimated average number of documents between 2015 and 2019 = 340,978.00 certificates

Average collected for certificates by the MTOP between 2015 and 2019 = USD 6,336,968.00

Current Status

PLANNING	✓
STRUCTURING	
PROMOTION	

CAPEX (referential) MM

$12,00 million

OPEX (referential) MM

$20,00 million

CAPEX + OPEX

$32,00

million

+Ecuador in the World

+World in Ecuador

Project

MULTIPURPOSE TERMINAL OF THE PORT AUTHORITY OF THE PORT OF ESMERALDAS

Brownfield

Project information

General Description

This project seeks to boost the competitiveness of the Port of Esmeraldas Port Authority's Multipurpose Terminal to benefit Ecuador's foreign trade, which involves rate levels, productivity, quality of services, and safety in the broadest sense (people, facilities, ships, and cargo), within a context of sustainable development.

Phases

- Replacement of Pre-Existing Equipment
- Expansion of Pier 1
- Revamping of Pre-Existing Works
- Overhauling of Pre-Existing Equipment
- Routine Maintenance of Pre-Existing Works
- Routine Maintenance Investment in Improvements
- Preventive Maintenance Marine Infrastructure
- Routine Maintenance of Pre-Existing Equipment
- Routine Maintenance of New Equipment Assigned to the Project

Delegation Model

PPP

MT & Initial TEU (referential)

213673 Tonnes year 1 & 14664 TEU year 1

Scope of the Project

DESIGN	✓
REHABILITATION / RECONDITIONING	✓
OPERATION & MAINTENANCE	✓
FUNDING	✓

Payback Model

Fee for services

+Ecuador in the World

+World in Ecuador

Location
Esmeraldas

City/Town

Esmeraldas

Current Status

PLANNING ✓

STRUCTURING

PROMOTION

CAPEX (referential) MM

$109.46 million

OPEX (referential) MM

$467.58 million

CAPEX + OPEX

$577.04
million

Financial Information
(referential)

IRR

15.04%

NPV (MM)

$2.59 million

Funding Scheme

Equity (%)

30%

Debt (%):

70%

Investment Payback Period

16 years

Concession Period

30 years

+Ecuador in the World

+World in Ecuador

Ministry of Production,
Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro | Juntos lo logramos

Project

MANTA – QUEVEDO ROAD

Brownfield

Project Information

General description:

This project promotes connectivity between the provinces of Manabi and Los Rios, linking large productive areas of the interior of the coast with the Manta Seaport.

It consists of the fine-tuning and rehabilitation of the 192 km road section; located in the provinces of Manabi and Los Rios.

Components

Section 1: Port of Manta - Colisa
Section 2: Colisa - Rocafuerte
Section 3: Rocafuerte Lateral Pass
Section 4: Rocafuerte - El Rodeo
Section 5: El Rodeo - Pichincha
Section 6: Pichincha - Quevedo

Routine and periodic maintenance.

Management model

PPP

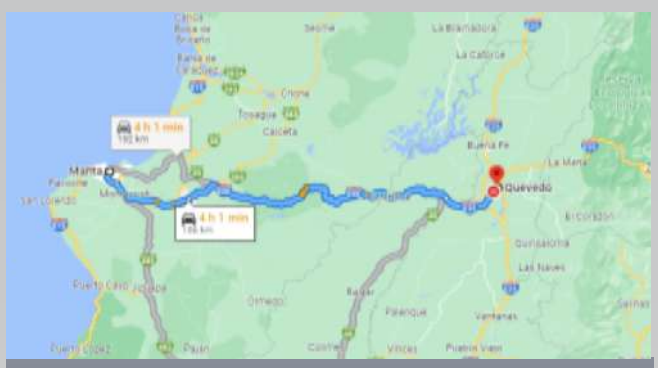
AADT (reference):

16.000

Location:
Manabí, Los Ríos

City:

Manta, Rocafuerte, Quevedo



+Ecuador in the World
+World in Ecuador

Scope of the Project

DESIGN	✓
REHABILITATION / RECONDITIONING	✓
OPERATION & MAINTENANCE	✓
FUNDING	✓

Remuneration model

Toll rate by road users

Current status

PLANNING	✓
STRUCTURING	
PROMOTION	

CAPEX (reference)

US$ 86.40 MM

OPEX (reference)

US$ 212.38 MM

CAPEX + OPEX

US$ 298.78 MM

Financial information:

Project horizon

25 years

Ministry of Production,
Foreign Trade, Investments and Fisheries

República del Ecuador
Gobierno del Encuentro
Juntos lo hacemos posible

REAL ESTATE

Ministry of Production,
Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro

Juntos lo hacemos posible

Project

HOUSING LEASE WITH PURCHASE OPTION

Greenfield

Project information

General Description

The objective of this project is to generate Social Interest Housing (VIS for its acronym in Spanish) to lease with a purchase option on state-owned land with an initial subsidy of USD 6,000 and a copayment of up to 50% of the rental fee as well as a mortgage credit with a preferential interest rate. In this regard, real estate developers / builders will benefit from the initial contribution of the land, the initial subsidy, and the existence of an effective demand that will contribute with thez lease fee for up to 5 years after which the purchase of the property will be made or effective.

Stages

1. Legalization of state-owned land for the construction of VIS for lease with purchase option.
2. Construction and lease of VIS.
3. Sale of VIS with preferential interest rate.

Initial Demand

105,000 households

Average Growth Rate

23% in the last year

Delegation Model

PPP / Strategic Alliance

Scope of the Project

DESIGN	✓
CONSTRUCTION	✓
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITIONING	
FUNDING	✓

Payback Model

Lease / Sale VIS

Current Status

PLANNING	
STRUCTURING	✓
PROMOTION	

+Ecuador in the World
+World in Ecuador

Ministry of Production, Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro

Juntos lo logramos

Project

LOS MASTODONTES REAL ESTATE

Greenfield

Project information

General Description

The project is located north of the Metropolitan District of Quito, in Carcelén Parish close to the Carcelén interchange and the North Interprovincial Terminal. The sector has all the basic services; its main use is residential, and it also has complementary equipment for district coverage, such as health, education, commerce, and recreation that serve the northern part of the city. It has easy access from the west through Av. Jaime Roldós Aguilera and from the east through the new extension of Av. Simón Bolívar. The project is developed on a tract of land with an area of 19.2 hectares and is divided into 20 blocks for residential use where housing of social and public interest will by means of five intervention stages, under a horizontal property regime.

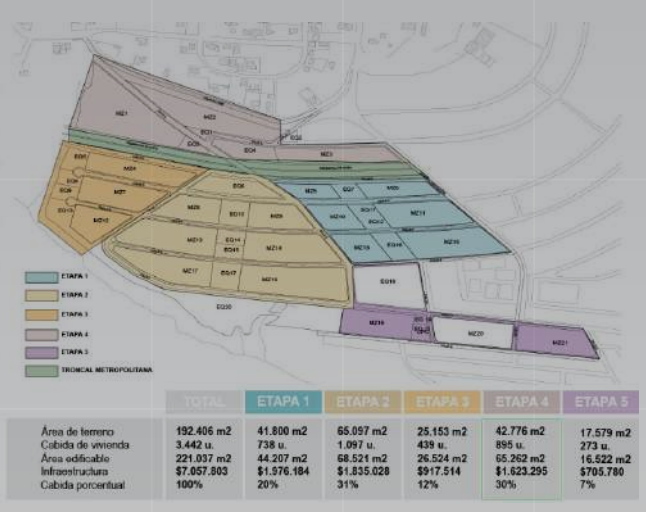
Features/Specifications

Project development comprises five stages that together amount to a total area of 192,405.89 m2 and twenty blocks of housing in each of which a real estate project will be developed under the horizontal property regime through multi-family blocks of 5 and 8 floors with two- and three-bedroom apartments of 58 to 85 m2.

They will all have communal areas, parking lots, and recreational green areas incorporating sustainable environmental and habitat principles.

The entire project will have approximately 3,442 housing units and 3,442 parking spaces, including visitors, people with reduced mobility, and private property, in compliance with current municipal regulations.

In compliance with the Ordinances in force for the Mastodontes project, and in order to balance the costs and the benefits that its development may yield, the project must include at least 30% affordable housing in accordance with Ministerial Agreement No. 031 of December 5, 2019, which provides for multiple incentives granted by the Ministry of Urban Development and Housing (MIDUVI).



	TOTAL	ETAPA 1	ETAPA 2	ETAPA 3	ETAPA 4	ETAPA 5
Área de terreno	192.406 m2	41.800 m2	65.097 m2	25.153 m2	42.776 m2	17.579 m2
Cabida de vivienda	3.442 u.	738 u.	1.097 u.	439 u.	895 u.	273 u.
Área edificable	221.037 m2	44.207 m2	68.521 m2	26.524 m2	65.262 m2	16.522 m2
Infraestructura	$7.057.803	$1.976.184	$1.835.028	$917.514	$1.623.295	$705.780
Cabida porcentual	100%	20%	31%	12%	30%	7%

Delegation Model

PPP / Strategic Alliance

Estimated Construction Schedule

The estimated term for completion of construction works is 130 (one hundred and thirty) months, and a 12 (twelve) month lead time will be allowed from the startup of construction to complete all the infrastructure works of the whole project.

Location

Pichincha

City/Town

Quito

General Implementation

Scope of the Project

DESIGN	✓
CONSTRUCTION	✓
OPERATION & MAINTENANCE	
REHABILITATION / RECONDITIONING	
FUNDING	✓

Payback Model

Sale of project properties

Market Study

The 2017 market study estimates that the potential 5-year demand (for the project under evaluation) amounts to 23,220 units, according to the project's product profile, prices, and commercial conditions.

Current Status

PLANNING	
STRUCTURING	
PROMOTION	✓

CAPEX (referential)

$175.116.400
million

Financial Information

INVESTOR'S IRR

17,59%

CONCESSION PERIOD

14 years

+Ecuador in the World
+World in Ecuador

MINING

Ministry of Production,
Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro

Juntos lo hacemos posible

Project

ISIMANCHI MINING

Greenfield

Project information

Project Details

Non-metallic limestone

Calizas Isimanchi is a Non-metallic limestone deposit located along the Precordillera fault (flake area) where the metamorphic rocks of the Cordillera Real and the Zamora batholith come together.

The geological and topographical surveys that were done served as the basis for conducting the geophysical study by electrical resistivity tomography.

Three diamond drilling campaigns were carried out comprising a total of 11,263.05 m in 71 drill holes; 5,847 samples were taken (5,670 from drilling cores and 177 were surface continuous channel samples). This mining phase culminated in the estimation, categorization, and certification of the calcareous resources.

Project Comprising 1 Mining Area Concession

Isimanchi Mayo, Code: 501361.

Total Mining Hectares

225 ha.

Scope of the Project

INITIAL EXPLORATION	
ADVANCED EXPLORATION	✓
ECONOMIC ASSESSMENT	✓
DEVELOPMENT	✓

Payback Model

To be defined with the investor in the negotiation stage

Estimated Time Per Stage

Article 37 of the Mining Law provides for a 10-year period after the mining concession grant to carry out the tasks of initial exploration (4 years), advanced exploration (4 years), and economic assessment of the deposit (2 years). If required, the concessionaire will have the right to request an extension of the economic assessment for a maximum additional period of 2 years.

Delegation Model

Joint-Venture/ Assignment and Transfer of Mining Rights / Operating Contract

Location

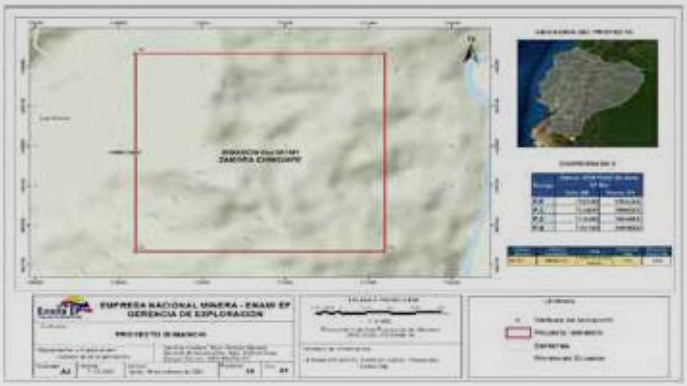
Zumba

Province

Zamora Chinchipe

Canton

Chinchipe



Current Status

- PLANNING
- STRUCTURING
- PROMOTION ✓

+Ecuador in the World

+World in Ecuador

Project

LA TRONERA MINING

Greenfield

Project Details

Non-metallic limestone

ENAMI EP carried out several exploration works, among which are a detailed topographical survey, trench construction and mapping, and borehole drilling to recover deep cores. This also included the reinterpretation of previous works carried out by the Cementos Chimborazo cement company.

The field investigations carried out to date have determined the presence of a gray to light gray limestone packet in bluish sectors, medium to fine grain interspersed with millimeters to centimeters of calcite veining and sporadically as nodules, moderately fractured with approximate thicknesses between 30 and 40 meters interspersed with gray to dark gray, slightly calcareous and very fractured shales that are very fine grain in sectors.

Project Comprising 1 Mining Area Concession

La Tronera Code: 200985.

Total Mining Hectares

162 ha.

Scope of the Project

INITIAL EXPLORATION	
ADVANCED EXPLORATION	✓
ECONOMIC ASSESSMENT	✓
DEVELOPMENT	✓

Payback Model

To be defined with the investor in the negotiation stage

+Ecuador in the World

+World in Ecuador

Estimated Time Per Stage

Article 37 of the Mining Law provides for a 10-year period after the mining concession grant to carry out the tasks of initial exploration (4 years), advanced exploration (4 years), and economic assessment of the deposit (2 years). If required, the concessionaire will have the right to request an extension of the economic assessment for a maximum additional period of 2 years.

Delegation Model

Joint-Venture/ Assignment and Transfer of Mining Rights / Operating Contract

Current Status

- PLANNING
- STRUCTURING
- PROMOTION ✓

Location

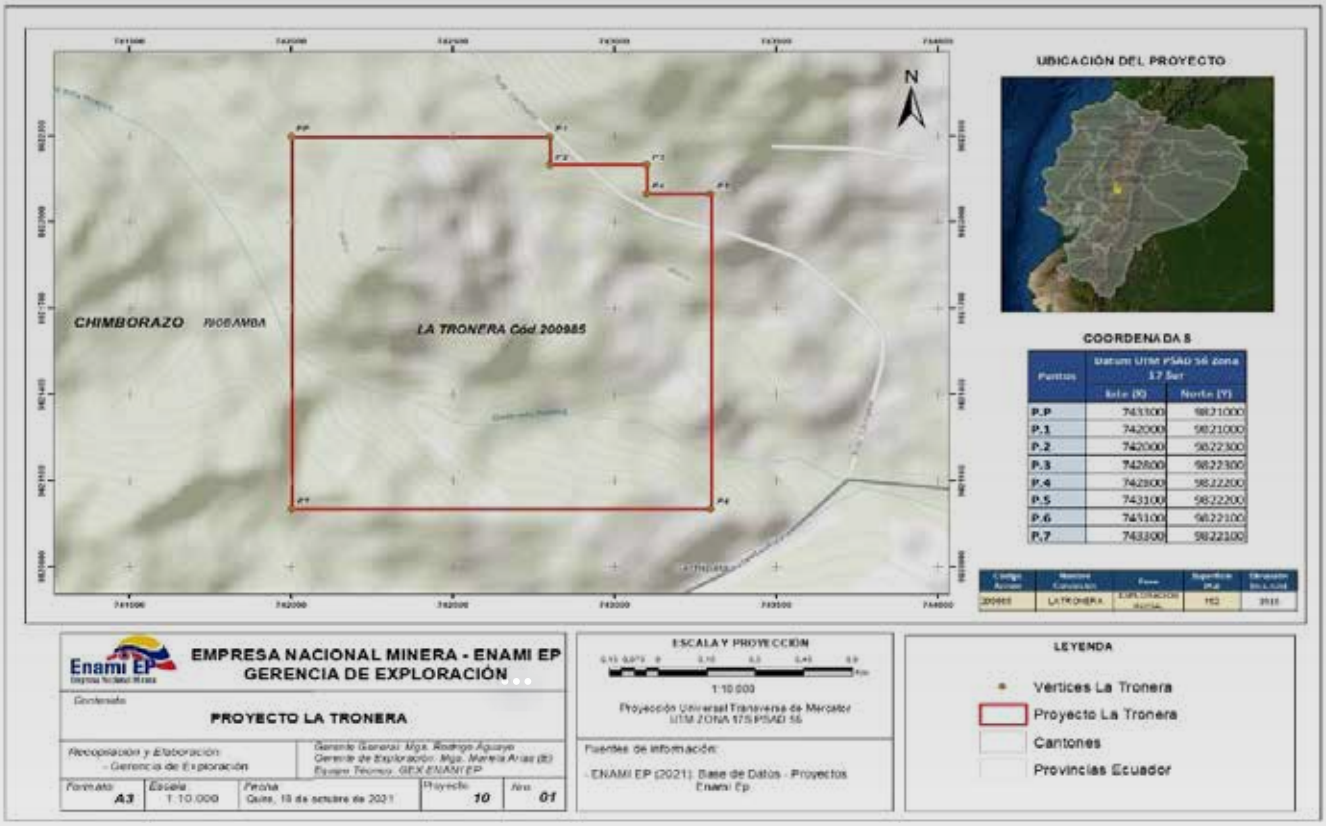
San Juan

Province

Chimborazo

Canton

Riobamba



Project

UNACOTA MINING

Greenfield

Project information

Project Details

Non-metallic limestone

At the regional level, this deposit is made up of reef limestones from the Unacota Formation embedded in the Western Cordillera. It is a sequence of bioclastic marine limestones within a sequence of siliciclastic turbiditic fans and abundant foraminifera fauna.

Project Comprising 1 Mining Area Concession

Unacota, code: 200990

Extension

2,747 ha.

Estimated Time Per Stage

In Ecuador, article 37 of the Mining Law provides for a 10-year period after the mining concession grant to carry out the tasks of initial exploration (4 years), advanced exploration (4 years), and economic assessment of the deposit (2 years). If required, the concessionaire will have the right to request an extension of the economic assessment for an additional period of 2 years maximum.

Delegation Model

Joint-Venture / Assignment and Transfer of Mining Rights / Operating Contract.

Scope of the Project

INITIAL EXPLORATION	✓
ADVANCED EXPLORATION	✓
ECONOMIC ASSESSMENT	✓
PRODUCTION	✓

Packback Model

To be defined with the investor in the negotiation stage

Current Status

PLANNING	
STRUCTURING	
PROMOTION	✓

Location

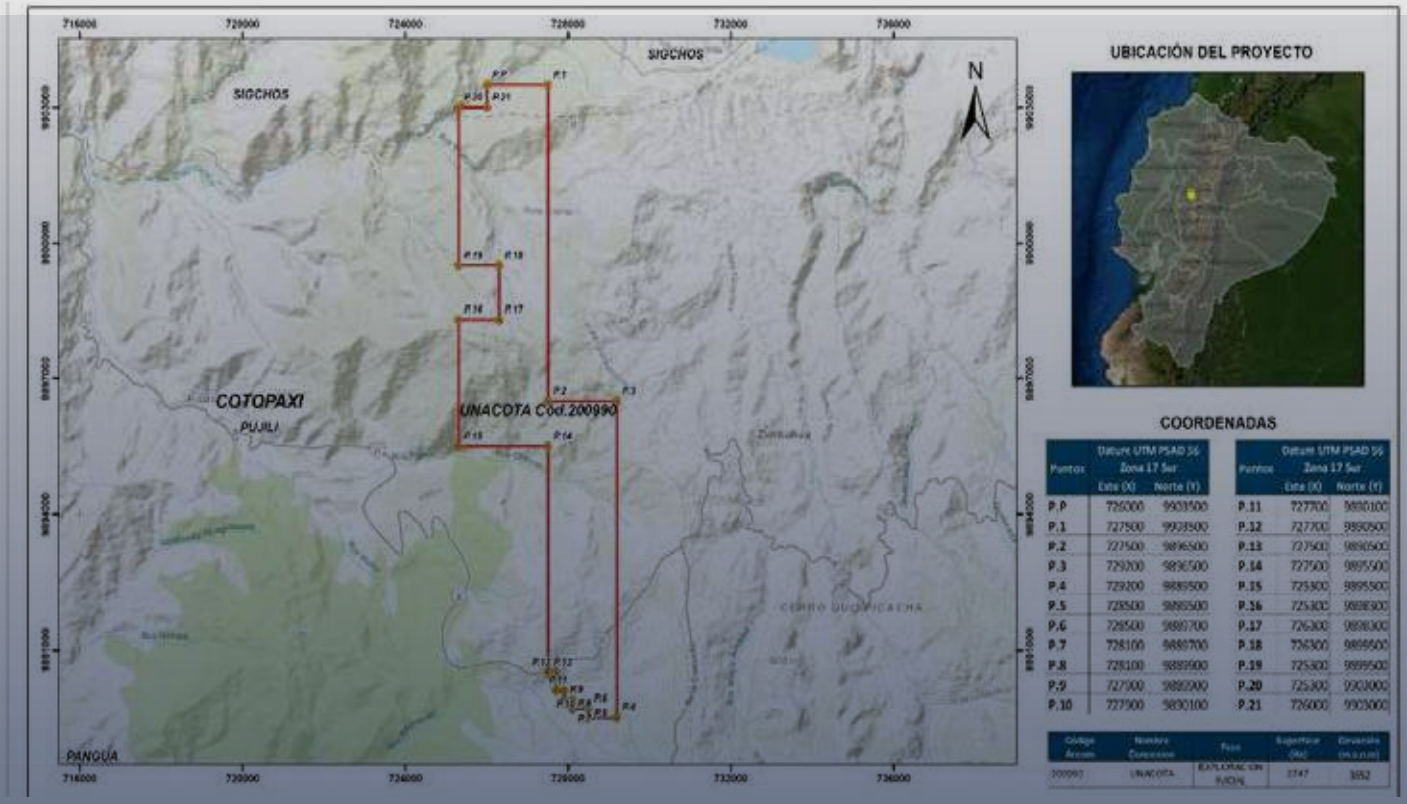
Zumbahua
Pilaló

Province

Cotopaxi

Canton

Pujilí



+Ecuador in the World

+World in Ecuador

Ministry of Production,
Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro

Juntos lo logramos

Project

SIGCHOS MINING

Greenfield

Project information

Project Details

Metallic - Signs of porphyry Cu-Au, polymetallic breccias and veins.

Located in the Western Cordillera's metallogenic Belt, influenced by the Macuchi and La Plata mining districts.

Several deposits with probable association to NE and NW intrusions and structures.

A total of 54 active sediment samples and 46 outcrop rock samples taken.

Multi-element Au-ICP21 + ME-ICP41 analyses.

Multi-elemental geostatistics for interpretation of anomalous zones.

The high Au values in rock are concentrated in structures west of Frailejón.

Scope of the Project

INITIAL EXPLORATION	✓
ADVANCED EXPLORATION	✓
ECONOMIC ASSESSMENT	✓
DEVELOPMENT	✓

Payback Model

To be defined with the investor in the negotiation stage

Current Status

PLANNING	
STRUCTURING	
PROMOTION	✓

+Ecuador in the World

+World in Ecuador

Project Comprising 3 Mining Area Concession

Isinliví, code: 200988; Frailejón, code: 200986; and Chugchilán, code: 200987

Total Mining Hectares

10.850 ha.

Estimated Time Per Stage

Article 37 of the Mining Law provides for a 10-year period after the mining concession grant to carry out the tasks of initial exploration (4 years), advanced exploration (4 years), and economic assessment of the deposit (2 years). If required, the concessionaire will have the right to request an extension of the economic assessment for a maximum additional period of 2 years.

Delegation Model

Joint-Venture / Assignment and Transfer of Mining Rights / Operating Contract

Location

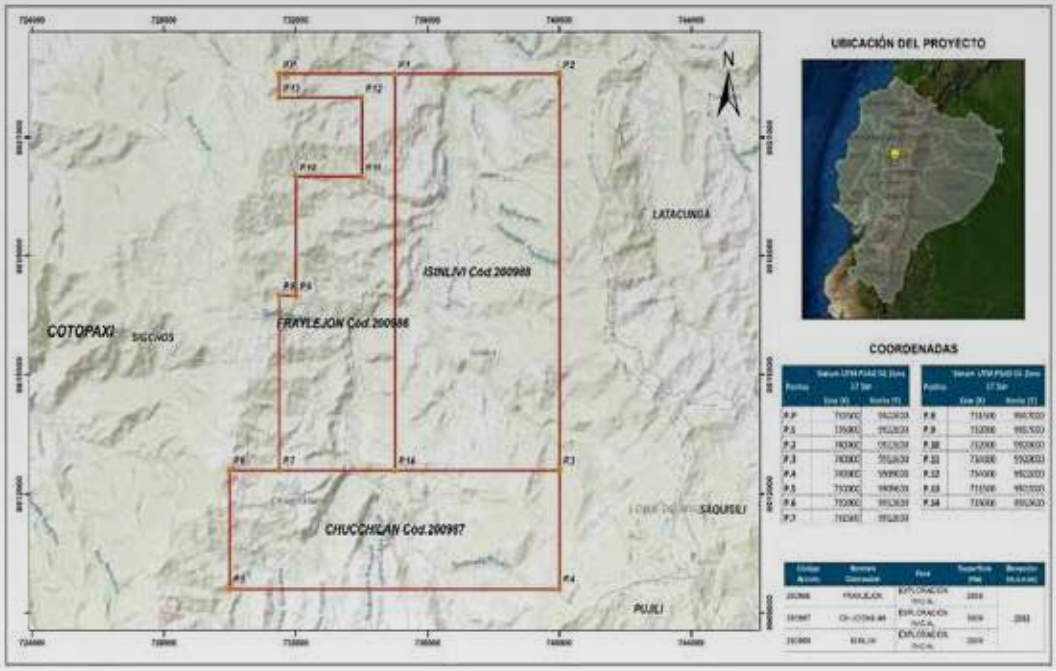
Isinliví Chugchilán

Province

Cotopaxi

Canton

Sigchos



Project

CASCABEL MINING

Greenfield

Project Information

General Description

Cu-Au-Ag Porphyry

The Alpala deposit is the main target of the Cascabel concession, located in the highly endowed northern section of the Andean Copper Belt, the entirety of which is known to be almost the base of world copper production. The project area harbors Eocene-age mineralization, the same age as numerous Tier 1 deposits along the Andean Copper Belt in Chile and Peru to the south. The project base is located in Rocafuerte, within the Cascabel concession, in northern Ecuador, about a three-hour drive by paved road north of Quito, close to water, electricity supply and Pacific ports.

Includes 1 concession (Mining Area)

Cascabel, code: 402288.

Total Mining Hectares

4,979 ha.

Estimated Time per Stage

According to the LM (Art. 37) there is a period of 10 years from the granting of the mining concession to conduct initial exploration work (4 years), advanced exploration (4 years) and economic evaluation of the deposit (2 years), if required, the concessionaire will have the right to request the extension of the economic evaluation for a period of up to 2 years.

Mining Title Holder

SOLDGOLD

Current Status

- INITIAL EXPLORATION
- ADVANCED EXPLORATION
- ECONOMIC EVALUATION ✓
- EXPLOITATION

CAPEX (estimated)

$ 10,063 - 10,511 million

OPEX (estimated)

$ 25,470 - 25,930 million

INVESTMENT EFFECTIVELY MADE

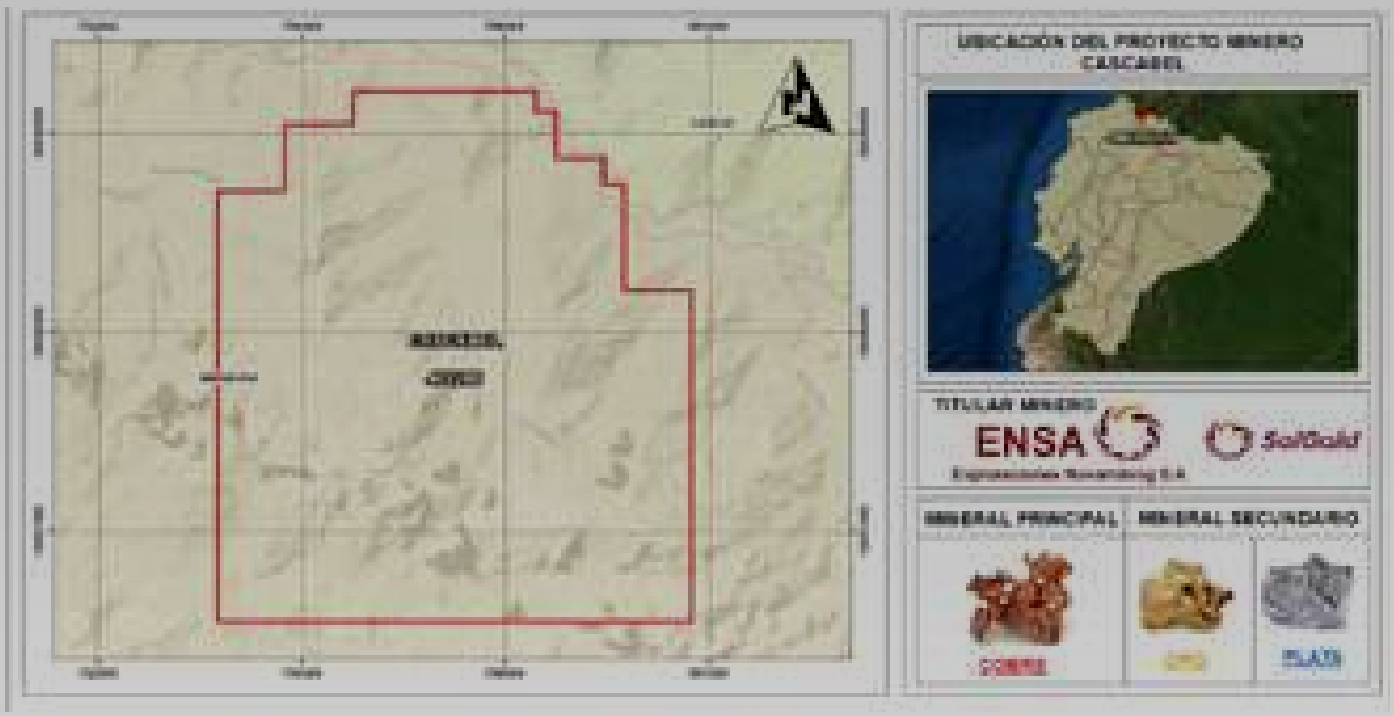
$ 208.6 million

+Ecuador in the World

+World in Ecuador

Location

Ibarra
Imbabura



Financial Information

IRR

25.7% - 26.5%

NPV

$ 4,195 - 4,548
million

OPERATING LIFETIME OF THE MINE

Between 49 and 66 years

+Ecuador en el mundo
+mundo en el Ecuador

Project

CANGREJOS MINING

Greenfield

Project Information

General Description

Au-Cu Porphyry

The Cangrejos project is located in the Andean foothills of the El Oro province, in southwestern Ecuador. The province of El Oro has a long history of mining, which is a way of life in many areas. At Cangrejos, porphyry-type Au-Cu mineralization is associated with a sequence of intercalated porphyry dioritic intrusions and hydrothermal breccias. The best Au laws are correlated with the potassium alteration and chalcopyrite-bornite that appears as fine disseminations and in quartz veins. This northeast trending zone was discovered by Newmont in 1999 and tested by 3 Odin drill holes in 2011.

Includes 4 concessions (Mining Area)

Cangrejos 20, code: 30000203.
Casique, code: 5114.
Cangrejos, code: 2847.
Canary Islands, code: 2649.1.

Extension

6,283 ha.

Estimated Time per Stage

According to the LM (Art. 37) there is a period of 10 years from the granting of the mining concession to conduct initial exploration work (4 years), advanced exploration (4 years) and economic evaluation of the deposit (2 years), if required, the concessionaire will have the right to request the extension of the economic evaluation for a period of up to 2 years.

Mining Title Holder

LUMINA

Current Status

- INITIAL EXPLORATION
- ADVANCED EXPLORATION ✓
- ECONOMIC EVALUATION
- EXPLOITATION

CAPEX (estimated)

$ 1,89 billion

OPEX (estimated)

$ 7,24 billion

INVESTMENT EFFECTIVELY MADE

$ 33.05 million

Location

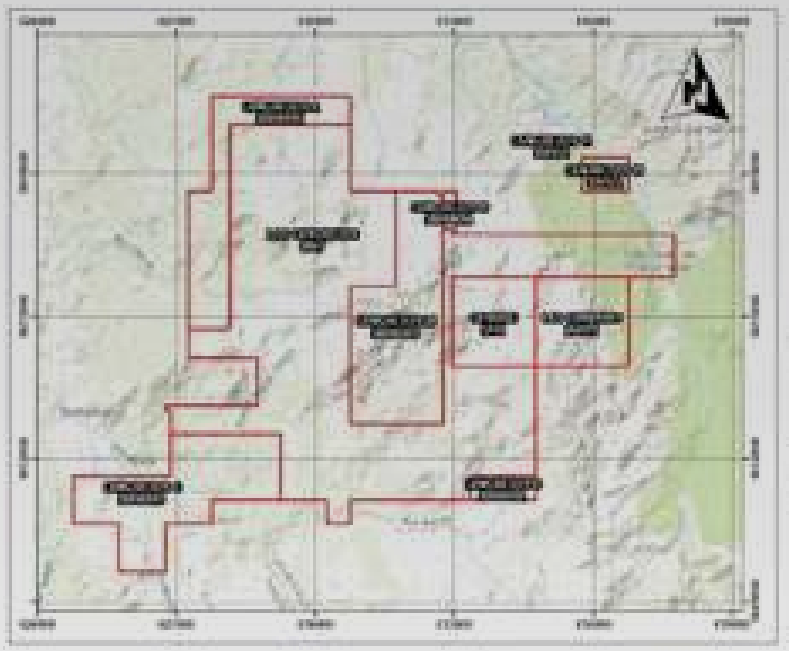
Bella María and San José de Cedro Azul...

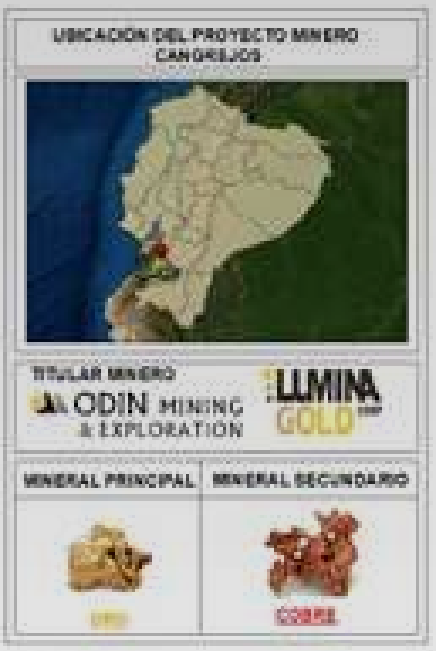
Province

El Oro

Canton

Santa Rosa and Atahualpa





Financial information

IRR

16,2%

NPV

$ 1,57
billion

OPERATIONAL LIFETIME OF THE MINE

25 years

+Ecuador in the World

+World in Ecuador

Ministry of Production, Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro

Juntos lo logramos

Project

CURIPAMBA MINING

Greenfield

Project Information

General Description

Cu-Au-Ag VMS.

The Curipamba project includes the advanced high-grade copper-gold deposit El Domo. Curipamba is located in central Ecuador, about 150 km northeast of the important port city of Guayaquil, about 3 hours travel time. The concessions cover hills and low-lying plains between 300 and 900 meters above sea level. The Dome is a VMS deposit in tabular form, with mineralization beginning 30 meters from the surface and dimensions of approximately 800 x 400m. Three well-maintained gravel roads provide direct access to El Domo and most of the Curipamba project area. More than 60,000m of diamond drilling has been carried out at El Domo.

Includes 7 concessions (Mining Area)

Las Naves, code: 200508.
Las Naves 1, code: 200627.
Las Naves 2, code: 200628.
Las Naves 3, code: 200629.
Las Naves 5, code: 700885.
Jordan 1, code: 700918.
Jordan 2, code: 200652.

Extension

21,537 ha.

Estimated Time per Stage

According to the LM (Art. 37) there is a period of 10 years from the granting of the mining concession to conduct initial exploration work (4 years), advanced exploration (4 years) and economic evaluation of the deposit (2 years), if required, the concessionaire will have the right to request the extension of the economic evaluation for a period of up to 2 years.

Mining Title Holder

CURIMINING

Current Status

- INITIAL EXPLORATION
- ADVANCED EXPLORATION ✓
- ECONOMIC EVALUATION
- EXPLOITATION

CAPEX (estimated)

$ 289.22 million

OPEX (estimated)

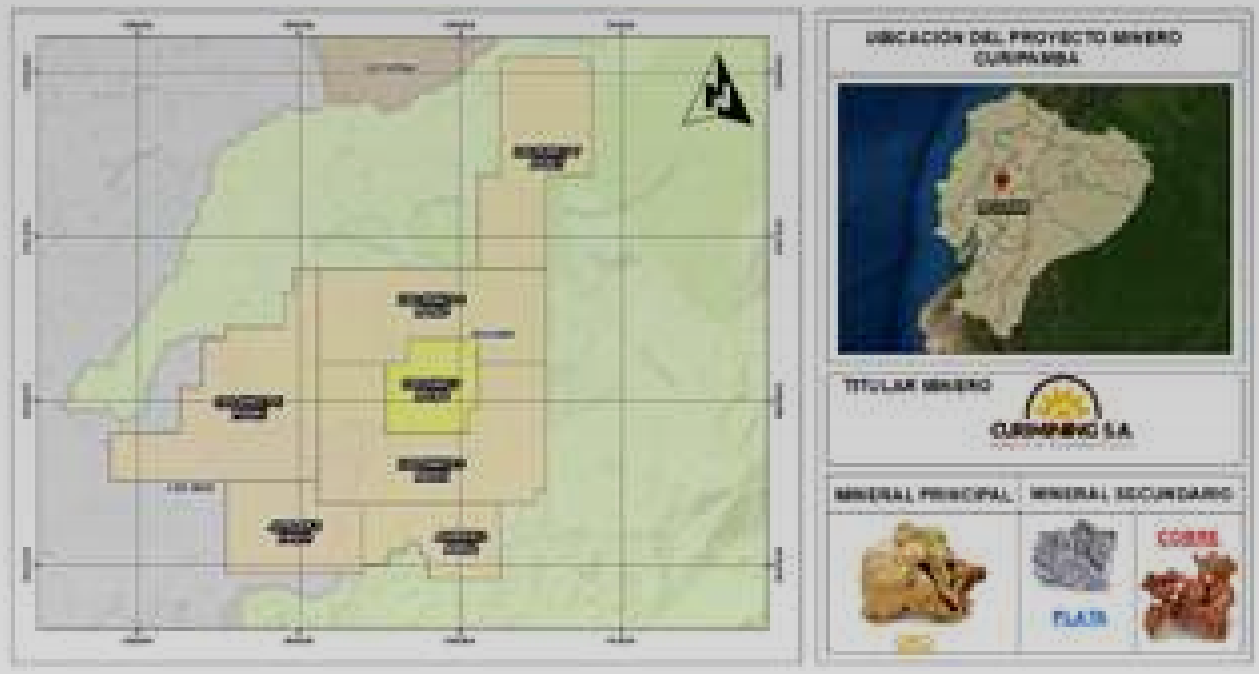
$ 478.07 million

CAPEX + OPEX

$ 767.29 million

Location

Bolívar
Los Ríos



Financial information

IRR

40,5%

NPV

$ 373.14
million

OPERATIONAL LIFETIME OF THE MINE

15 years

+Ecuador in the World

+World in Ecuador

Project

LA PLATA MINING

Greenfield

Project Information

General Description

VMS of Cu-Au-Ag-Zn

Gold-rich volcanogenic massive sulfide (VMS) deposit project that was mined on a small scale between 1975 and 1981 by Outokumpu Finland. The project benefits from a modern drilling and exploration database that was conducted by Cambior Inc. from 1996 to 1999 and by Cornerstone Capital from 2006 to 2009. In total, there are drill cores and logs of more than 14,500 meters of drilling. The combination of very rich deposits of gold, copper, zinc and silver provides characteristics to La Plata project to present a significant exploration profile with multiple advanced targets defined by interesting geochemistry, geology and geophysics.

Includes 1 concession (Mining Area)

La Plata, code: 2001.1.

Extensión

2,235 ha.

Estimated Time per Stage

According to the LM (Art. 37) there is 10-year period from the granting of the mining concession to conduct initial exploration work (4 years), advanced exploration (4 years) and economic evaluation of the deposit (2 years), if required, the concessionaire will have the right to request the extension of the economic evaluation for a period of up to 2 years.

Mining Title Holder

ATICO

Current Status

- INITIAL EXPLORATION
- ADVANCED EXPLORATION ✓
- ECONOMIC EVALUATION
- EXPLOITATION

CAPEX (estimated)

$ 117.85 million

OPEX (estimated)

$ 142.46 million

CAPEX + OPEX

$ 260.31 million

Location

Sigchos Cotopaxi

Financial information

IRR

24%

NPV

$ 52
million

OPERATIONAL LIFETIME OF THE MINE

9 years

+Ecuador in the World

+World in Ecuador

Project

BLANCA MINING

Greenfield

Project Information

General Description

Au epithermal structures

The Blanca project is located 8 km northwest of the Cascabel mining concession. The Blanca project harbors a silicified dome topography containing extensive blooms of gold mineralization.

Includes 4 concessions (Mining Area)

Its mining owner is Carnegie Ridge Resources SA

Extension

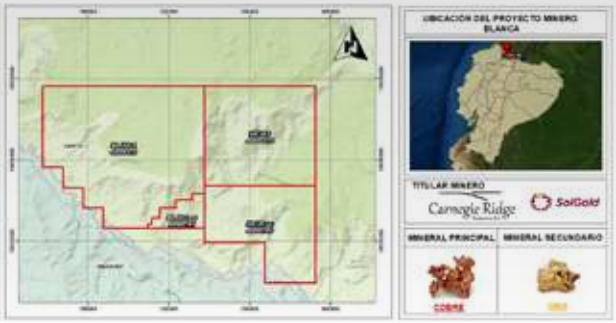
7300 ha.

Estimated Time per Stage

According to the LM (Art. 37) there is 10-year period from the granting of the mining concession to conduct initial exploration work (4 years), advanced exploration (4 years) and economic evaluation of the deposit (2 years), if required, the concessionaire will have the right to request the extension of the economic evaluation for a period of up to 2 years.

Location

Mira Carchi



Mining Title Holder

SOLDGOLD

Current Status

- INITIAL EXPLORATION ✓
- ADVANCED EXPLORATION
- ECONOMIC EVALUATION
- EXPLOITATION

+Ecuador in the World

+World in Ecuador

Project

CIUDADES PERDIDAS MINING

Greenfield

Project Information

Descripción General

Sedimentary and epithermal Au-Zn-Cu layers

This mining project is located in Morona Santiago, it is made up of 42 mining concessions that were granted in December 2016.

These concessions were obtained by the Ecuadorian company ECUASOLIDUS SA; subsidiary of the Canadian company AURANIA RESOURCES LTD, through the auction process initiated by an individual. The total area dedicated to mining geological research is 207,764 hectares in the Morona Santiago province, in the Logroño, Santiago, Morona and Tiwintza cantons. This area represents 0.73% of the continental national territory.

Shimpia North is a 22-kilometer-long extension of high-grade mineralization at Tiria-Shimpia that has highlighted an area of constant enrichment of silver and zinc in the ground at a distance of 2.5 kilometers ("km") in the project area. Ciudades Perdidas of the Company - Cutucu ("Project") in southeastern Ecuador. Drilling rigs are being prepared for holes 4 and 5 to test mineralization at a depth of approximately 100 meters ("m") below surface.

Details of the Drill Objectives

The new wells are designed to test an area where the topsoil contains the highest grades of silver and zinc in the target area. Silver grades of more than one gram per ton ("g / t" or 1,000 ppm) extend in the soil for at least 1 km, while zinc grades of more than 800g / t encapsulate the core of the enrichment of silver. Rock chip samples from the outcropping returned grades of up to 73g / t silver and 49% zinc. The area being tested with wells 4 and 5 also contains the high-tech metals gallium and indium.

For these mining concessions, Ecuasolidus committed an investment of $ 13.44 million and to date it has generated an investment of $ 23.09 million

Estimated Time per Stage

According to the LM (Art. 37) there is 10-year period from the granting of the mining concession to conduct initial exploration work (4 years), advanced exploration (4 years) and economic evaluation of the deposit (2 years), if required, the concessionaire will have the right to request the extension of the economic evaluation for a period of up to 2 years.

Mining Title Holder

AURANIA

Current Status

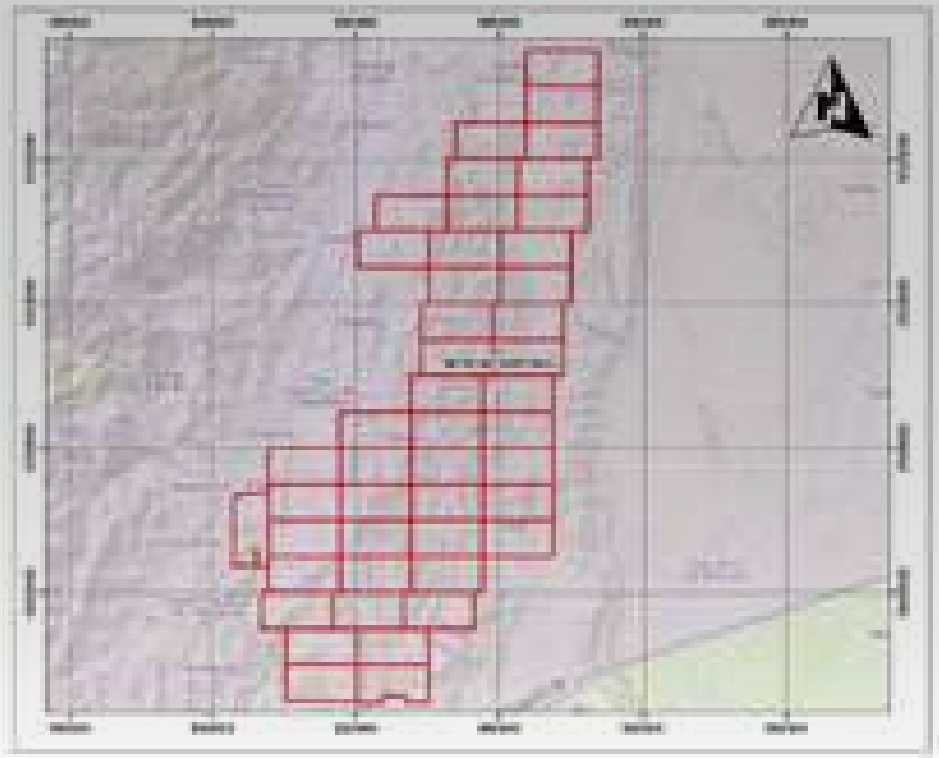
- INITIAL EXPLORATION ✓
- ADVANCED EXPLORATION
- ECONOMIC EVALUATION
- EXPLOITATION

+Ecuador in the World

+World in Ecuador

Location

Logroño
Morona Santiago



+Ecuador in the World
+World in Ecuador

Ministry of Production,
Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro | Juntos lo logramos

Project

CONDOR MINING

Greenfield

Project Information

General Description

Porphyry and Epithermal Cu-Au Deposit

Highly mineralized project with approximately 135,000 meters of drilling as of the second quarter of 2021 in all deposits.

In 2019, Luminex discovered a new high-grade area called the Camp deposit that helped unlock lower-grade open pit deposits at Los Cuyes, Soledad and Enma (collective known as Condor North) within the northern epithermal deposits. The Company published a Preliminary Economic Assessment for Condor North in July 2021.

Central Condor has the Santa Bárbara deposit which is classified as a porphyry gold and copper deposit and is hosted in basaltic andesites within the eastern edge of the Zamora Batholith. The mineralized body extends at least 700m long by approximately 300m wide and contains an NI 43-101 resource of 0.9 Moz of gold and 1.0 Moz of Indicated silver, and 2.8 Moz of gold and 4.9 Silver Moz Inferred.

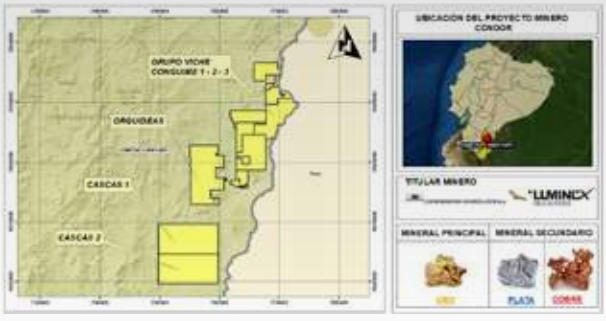
Southern Condor is home to Nayumbi Prospect, Luminex's latest low-sulfidation, high-grade gold and silver discovery grading up to 80.5 g / t gold and 14.4 g / t silver collected from rock chip samples . The geology and mineralization at Nayumbi is analogous to Lundin Gold's Fruta del Norte mine and occurs along the same regional fault system. They are determined as indicated gold resource: 2.3 Moz and inferred from 4.3 Moz.

Estimated Time per Stage

According to the LM (Art. 37) there is 10-year period from the granting of the mining concession to conduct initial exploration work (4 years), advanced exploration (4 years) and economic evaluation of the deposit (2 years), if required, the concessionaire will have the right to request the extension of the economic evaluation for a period of up to 2 years.

Location

Nangaritza
Zamora Chinchipe



Mining Title Holder

LUMINEX

Current Status

INITIAL EXPLORATION	✓
ADVANCED EXPLORATION	
ECONOMIC EVALUATION	
EXPLOITATION	

+Ecuador in the World

+World in Ecuador

Project

LA HUECA MINING

Greenfield

Project Information

General Description

Cu-Au porphyry

La Hueca is home to six identified porphyry centers. Geologic mapping, stream sediment sampling, and rock chips indicate the presence of a network of quartz veins containing several minerals characteristic of copper and gold porphies.

Includes 4 concessions (Mining Area)

Its mining owner is the company Cruz de Sol SA

Extension

16000 ha.

Estimated Time per Stage

According to the LM (Art. 37) there is 10-year period from the granting of the mining concession to conduct initial exploration work (4 years), advanced exploration (4 years) and economic evaluation of the deposit (2 years), if required, the concessionaire will have the right to request the extension of the economic evaluation for a period of up to 2 years.

Location

Centinela del Cóndor
Zamora Chinchipe

Mining Title Holder

SOLDGOLD

Current Status

- INITIAL EXPLORATION ✓
- ADVANCED EXPLORATION
- ECONOMIC EVALUATION
- EXPLOITATION

+Ecuador in the World

+World in Ecuador

Project

RUMIÑAHUI MINING

Greenfield

Project Information

General Description

Au epithermal structures

Consistent gold and copper anomalies over broad areas identified by sampling, highlighting the potential for a significant copper porphyry system.

The fully owned exploration license covers 2,910 hectares and is located approximately 100 km northwest of Quito. Salazar Resources has successfully secured an access agreement, thanks to its strong local relationships, allowing field work to progress in 2020, ahead of a planned 2021 drilling program.

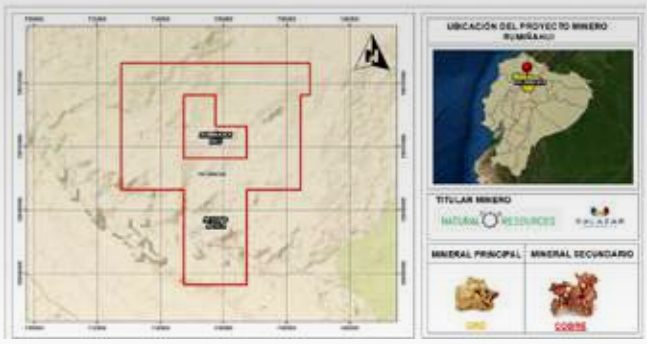
The survey area is cut by the San Francisco River and exhibits a number of historical adits and ancient works. Mapping and sampling have indicated the presence of gold-bearing porphyry-style veins and disturbances, shear zones, and quartz veins.

Estimated Time per Stage

According to the LM (Art. 37) there is 10-year period from the granting of the mining concession to conduct initial exploration work (4 years), advanced exploration (4 years) and economic evaluation of the deposit (2 years), if required, the concessionaire will have the right to request the extension of the economic evaluation for a period of up to 2 years.

Location

Province: Pichincha.
Canton: Quito
District: Pacto



Mining Title Holder

ADVENTUS

Current Status

- INITIAL EXPLORATION ✓
- ADVANCED EXPLORATION
- ECONOMIC EVALUATION
- EXPLOITATION

+Ecuador in the World

+World in Ecuador

Project

WARITZA MINING

Greenfield

Project Information

General Description

The Warintza Project is located in the Pangui region, in the southeastern part of the Cordillera Real. The objective is porphyry copper-moly mineralization. Porphyry copper deposits in the Pangui region, including Warintza, are associated with the late Jurassic late porphyry intrusive phases of the Jurassic batholiths in the Cordillera Real and sub-Andean regions of Ecuador.

The Zamora batholith is the host of the Warintza mineralization and some other porphyry deposits in this part of Ecuador.

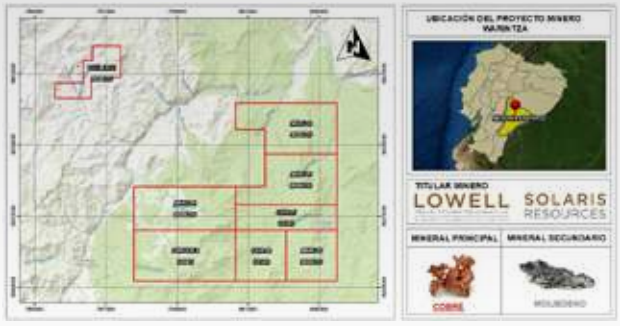
Inferred mineral resource in the well at Warintza Central: 124 Mt @ 0.70% CuEq; It includes only historical drilling (2000-2001) up to 200 m depth, which constitutes it a project with great potential for the exploitation of Copper.

Estimated Time per Stage

According to the LM (Art. 37) there is 10-year period from the granting of the mining concession to conduct initial exploration work (4 years), advanced exploration (4 years) and economic evaluation of the deposit (2 years), if required, the concessionaire will have the right to request the extension of the economic evaluation for a period of up to 2 years.

Location

Limón Indaza
Morona Santiago



Mining Title Holder

SOLARIS

Current Status

- [x] INITIAL EXPLORATION
- [ ] ADVANCED EXPLORATION
- [ ] ECONOMIC EVALUATION
- [ ] EXPLOITATION

+Ecuador in the World

+World in Ecuador

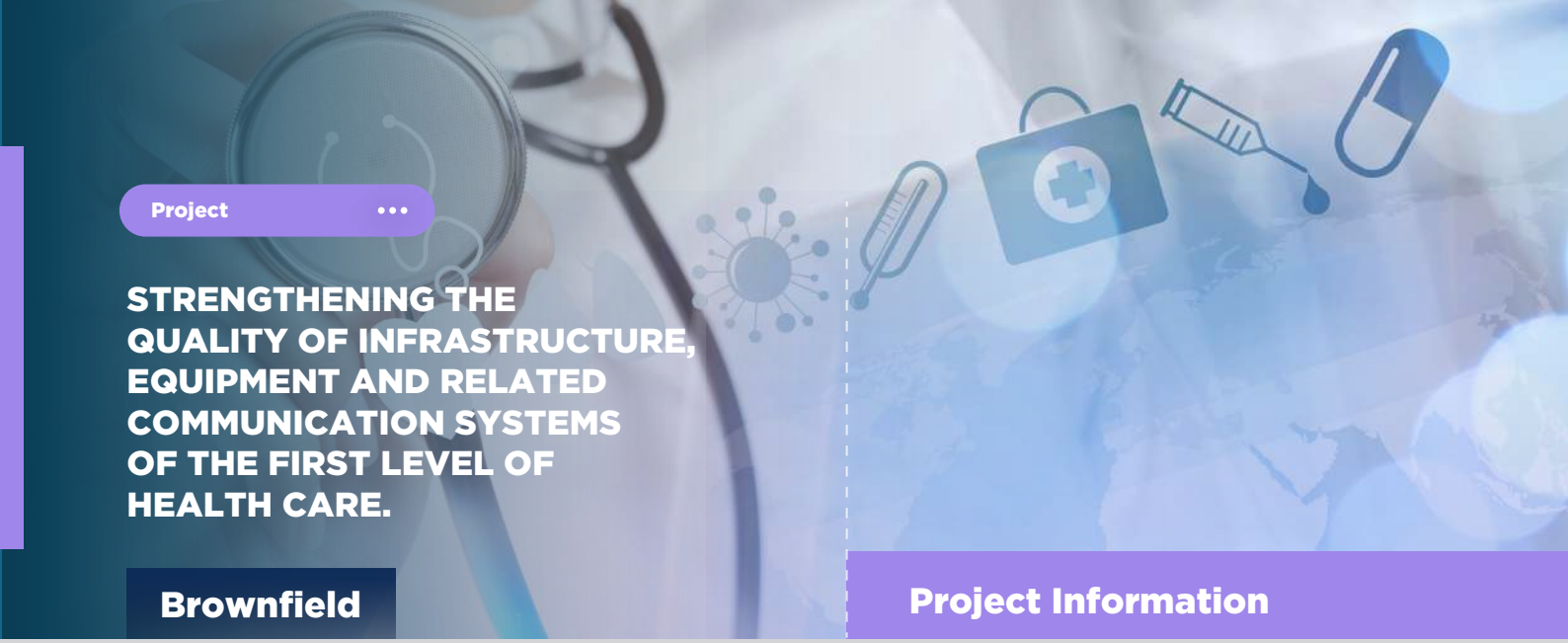
HEALTH

Ministry of Production,
Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro

Juntos lo hacemos posible



Project

STRENGTHENING THE QUALITY OF INFRASTRUCTURE, EQUIPMENT AND RELATED COMMUNICATION SYSTEMS OF THE FIRST LEVEL OF HEALTH CARE.

Brownfield

Project Information

General Description

Through Ministerial Agreement No. 000074-2017 of May 19, 2017, the Ministry of Public Health updates the Territorial Planning of Health Establishments of the First, Second and Third Level of Care corresponding to the Comprehensive Public Health Network that forms part of sectoral planning and that seeks to ensure that the location of services guarantees access, coverage and equity among the population. According to Ministerial Agreement 00099-2020 dated January 8, 2020, the publication of the "Manual of sanitary infrastructure and its components" is approved and authorized and it must be applied as mandatory at the national level, by all the health establishments of the Ministry of Public Health.

Components

COMPONENT 1: Strengthen the infrastructure of first-level health care facilities, in accordance with territorial planning at the national level.

COMPONENT 2: Equip new or existing first-level health care facilities nationwide.

COMPONENT 3: Continue with the related communication systems of the first level health care establishments.

Estimated Construction Time:

4 years

Delegation Model:

PPP

Scope of the Project

DESIGN	
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITION	✓
FINANCING	✓

INITIAL DEMAND

1.942

Health establishments of first level of attention.

DEMOGRAPHIC GROWTH PUBLISHED BY INEC WHICH IS AT 1,014% (INEC)

Population growth published by INEC, which stands at 1,014% (INEC).

Current Status

PLANNING	✓
STRUCTURING	
PROMOTION	

CAPEX + OPEX:

$910,40 million

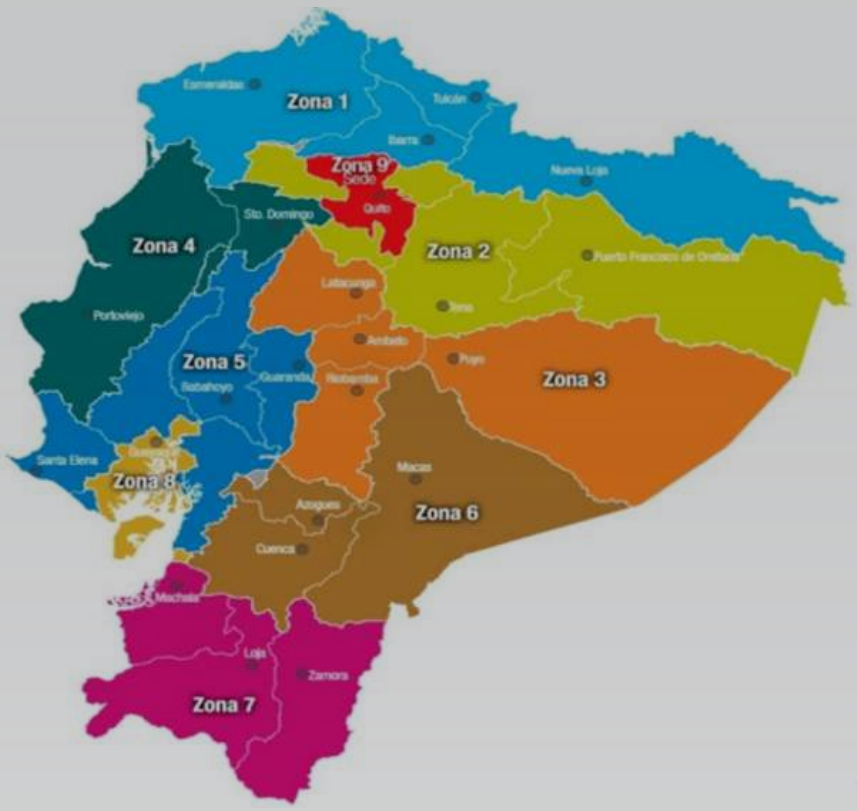
Location

Province

All

City/Town

All



+Ecuador in the World

+World in Ecuador

Ministry of Production,
Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro

Juntos lo logramos

Project

REENGINEERING OF THE INFRASTRUCTURE AND HOSPITAL EQUIPMENT FOR THE SECOND AND THIRD LEVEL OF CARE HEALTH SERVICES.

Brownfield

Project Information

General Description

Through Ministerial Agreement No. 000074-2017 of May 19, 2017, the Ministry of Public Health updates the Territorial Planning of Health Establishments of the First, Second and Third Level of Care corresponding to the Comprehensive Public Health Network that forms part of sectoral planning and that seeks to ensure that the location of services guarantees access, coverage and equity among the population. According to Ministerial Agreement 00099-2020 dated January 8, 2020, the publication of the "Manual of sanitary infrastructure and its components" is approved and authorized and it must be applied as mandatory at the national level, by all the health establishments of the Ministry of Public Health.

Componentes:

COMPONENT 1: Equipment and Furniture for Health Services: Equip and strengthen second and third level health care services.

COMPONENT 2: Construction, RECONDITION and Upgrading: build, RECONDITION and clean up second and third level health care facilities.

COMPONENT 3: Operational Management of the Project: Manage and Execute the Project.

Estimated Construction Time:

4 years

Delegation Model:

PPP

Scope of the Project

DESIGN:	
OPERATION & MAINTENANCE:	✓
REHABILITATION / RECONDITION:	✓
FINANCING:	✓

INITIAL DEMAND

153

second and third level health care facilities

AVERAGE GROWTH RATE

8%

Current Status

PLANNING	✓
STRUCTURING	
PROMOTION	

CAPEX + OPEX:

$ 565.74

Million

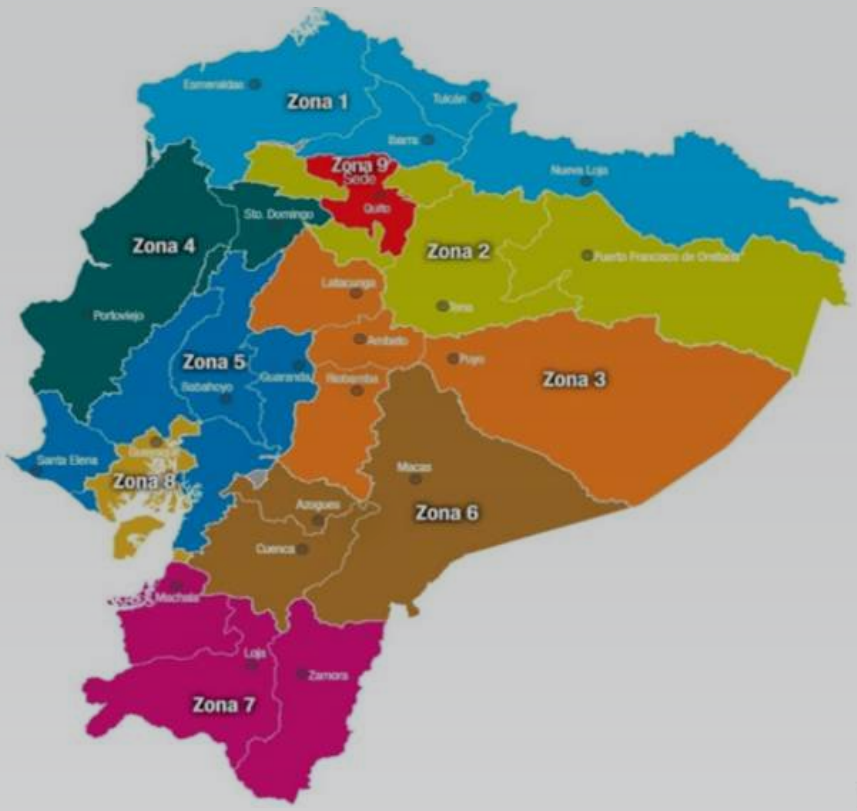
Location

Province

All

City/Town

All



+Ecuador in the World

+World in Ecuador

Ministry of Production,
Foreign Trade, Investments and Fisheries

República del Ecuador

Gobierno del Encuentro

Juntos lo logramos

Project

PRIMARY SERVICES HOSPITALS: ZARUMA, ALAUSI AND SANTA ROSA

Greenfield

Project information

General description

Construction of 3 primary services hospitals (Zaruma, Alausí and Santa Rosa) with 100 hospital beds, that provide quality services to users.

Components

Health services:

- Emergency outpatient consultation
- Obstetric center and a Labor, Delivery and Recovery Unit
- Surgical center
- X-ray imaging services
- Clinical and pathological analysis laboratory
- Transfusion medicine
- Immunizations
- Pharmacy
- Rehabilitation
- Nutrition and dietetics
- Hospitalization

Estimated construction time

3 years

Management model

PPP

Location

Zaruma, Alausí and Santa Rosa

Scope of the Project

DESIGN	✓
OPERATION & MAINTENANCE	✓
REHABILITATION / RECONDITIONING	✓
FUNDING	✓

Remuneration model

Payment for availability, according to compliance with quality indicators of the infrastructure and services provided.

Current status

PROMOTION	
STRUCTURING	
PLANNING	✓

CAPEX

US$ 80 MM

+Ecuador in the World
+World in Ecuador

Ministry of Production, Foreign Trade, Investments and Fisheries

República del Ecuador

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