CONEXIONES QUE INSPIRAN

BIODIVERSITY
ISA Group's Integral Management of Biodiversity by the Energy Transmission Business Unit

Last update: May 2019

INTRODUCTION

- Manifiesto
- Commitment to biodiversity

Manifiesto

- If we recognize that our planet is fragile and we have to take care of it, there is connection
- If we understand that our actions, as small as they may be, have an impact, there is connection
- If we discover that in each of us is the change we want for the world, there is connection
- Knowing and protecting the riches and diversity of ecosystems in much of our country, is a privilege that goes together with the nature of our daily work

Commitment to biodiversity

At ISA we are aware of the existence of sensitive species and fragile ecosystems along the megadiverse territory of the countries in which we are present.

We are committed to protecting biodiversity, because we recognize that our infrastructure causes socio-environmental impacts, for which we carry out the required management that allows minimizing and compensating them.

Our Biodiversity Integral Management includes tools such as the analysis of environmental constraints and expansion plans, environmental diagnosis of alternatives, environmental impact studies and their respective management plans, which in collectivity constitute a hierarchy of mitigation that helps to shape the portfolio of offsets.

Despite the measures implemented, we identify infrastructures that are located in protected areas within the categories I-IV of the International Union for the Conservation of Nature (IUCN). These infrastructures are so old that when they were installed in their areas they still did not have a declaration of protection of the IUCN.

However, in the case of these sites special measures are taken to guarantee the minimum impact on biodiversity throughout the life cycle of the asset.

We therefore undertake not to build and operate in protected areas in categories I-IV, as set out in the IUCN declarations.

BIODIVERSITY MANAGEMENT

- Process
- Approach
- Asset’s life cycle
- Internal procedures
- Mitigation hierarchy
- Alliances

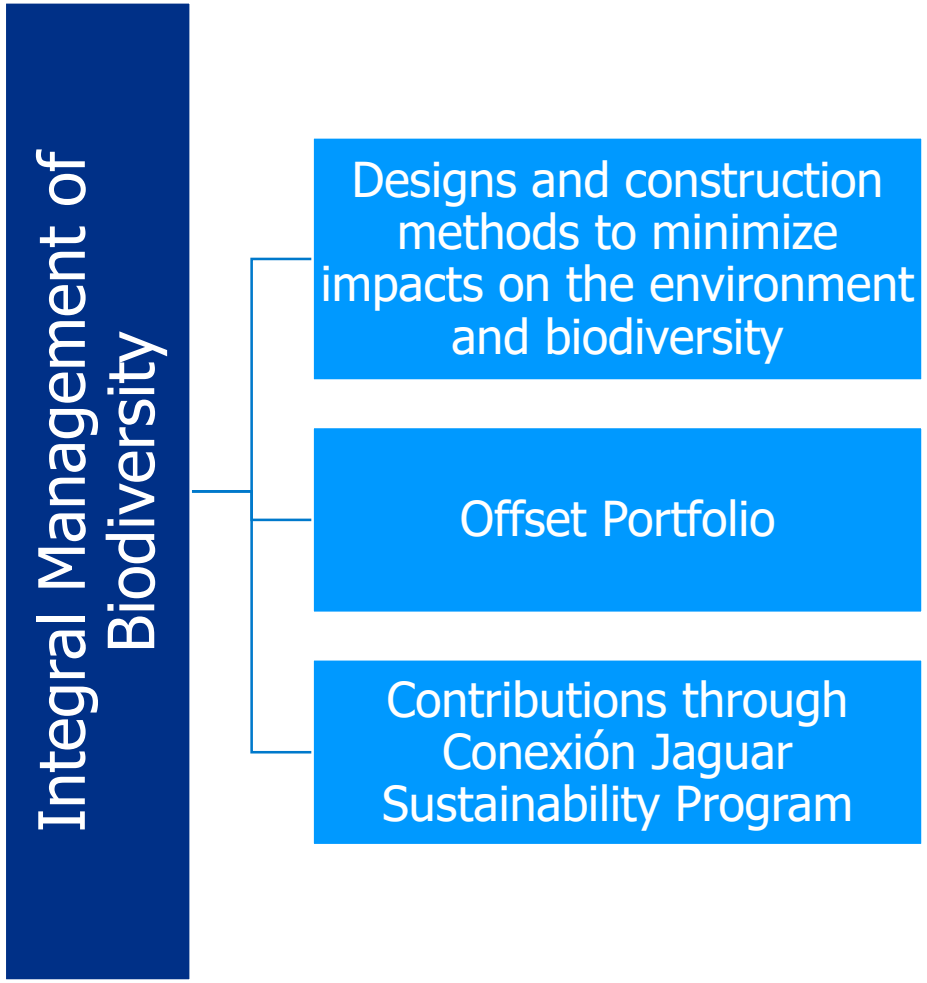
Biodiversity Management Process

As part of the strategies for the management of the biodiversity, we implement responsible actions in favor of the environment, avoiding the affectation of sensitive species and ecosystems, mitigating and compensating the impacts that our activities cause in the ecosystems and biodiversity.

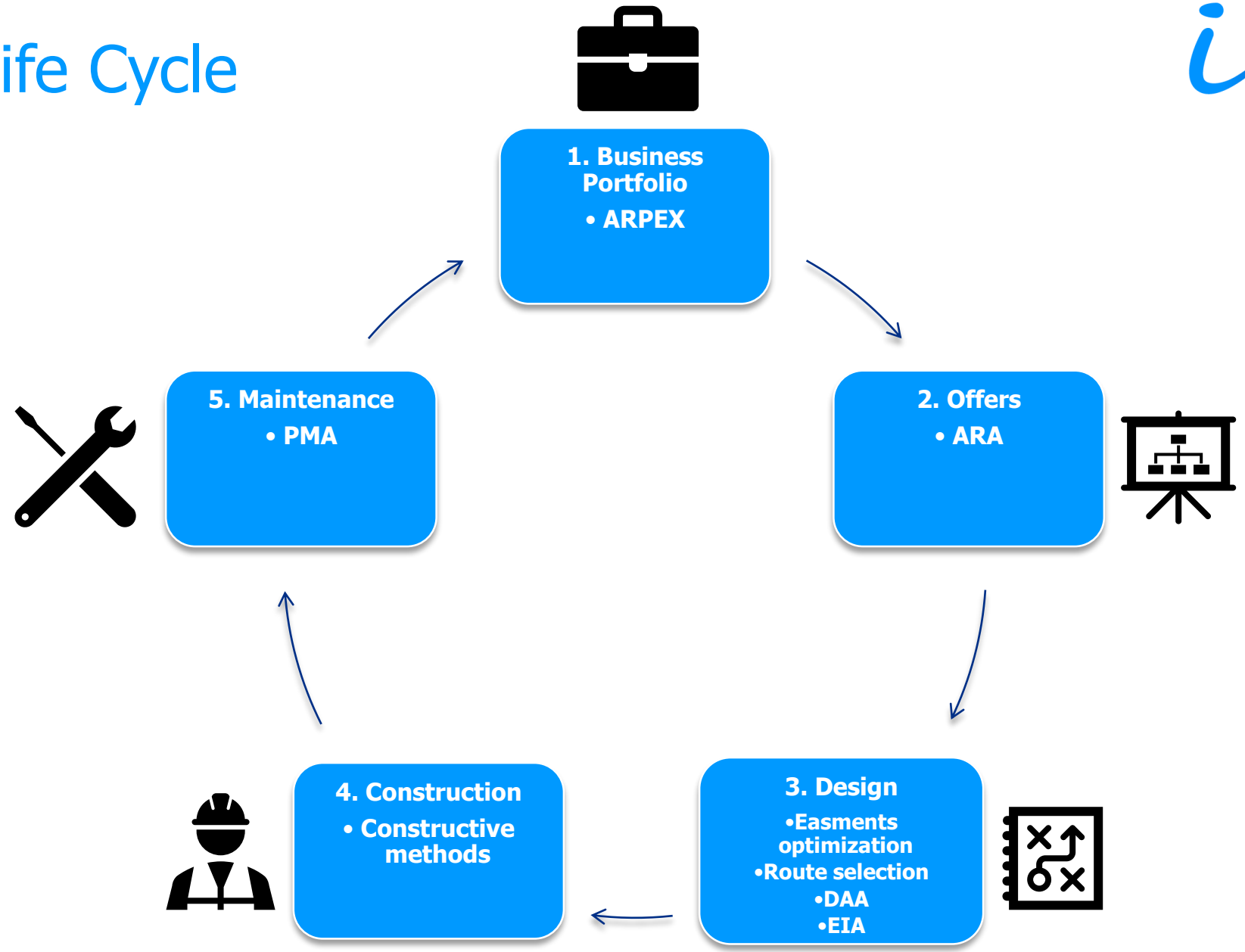
Therefore, we combine efforts and create interinstitutional strategic alliances with environmental authorities and key stakeholders, allowing us to explore and motivate synergies aimed at the conservation and protection of biodiversity in accordance with the Nation’s priorities.

Approach of our Integral Management of Biodiversity

The ISA Group has a clear and decisive intention for the conservation of biodiversity through legal actions and others. Thus, we manage the potential impacts to biodiversity throughout the life cycle of the asset, based on improved designs, offsets and our sustainability corporate program.



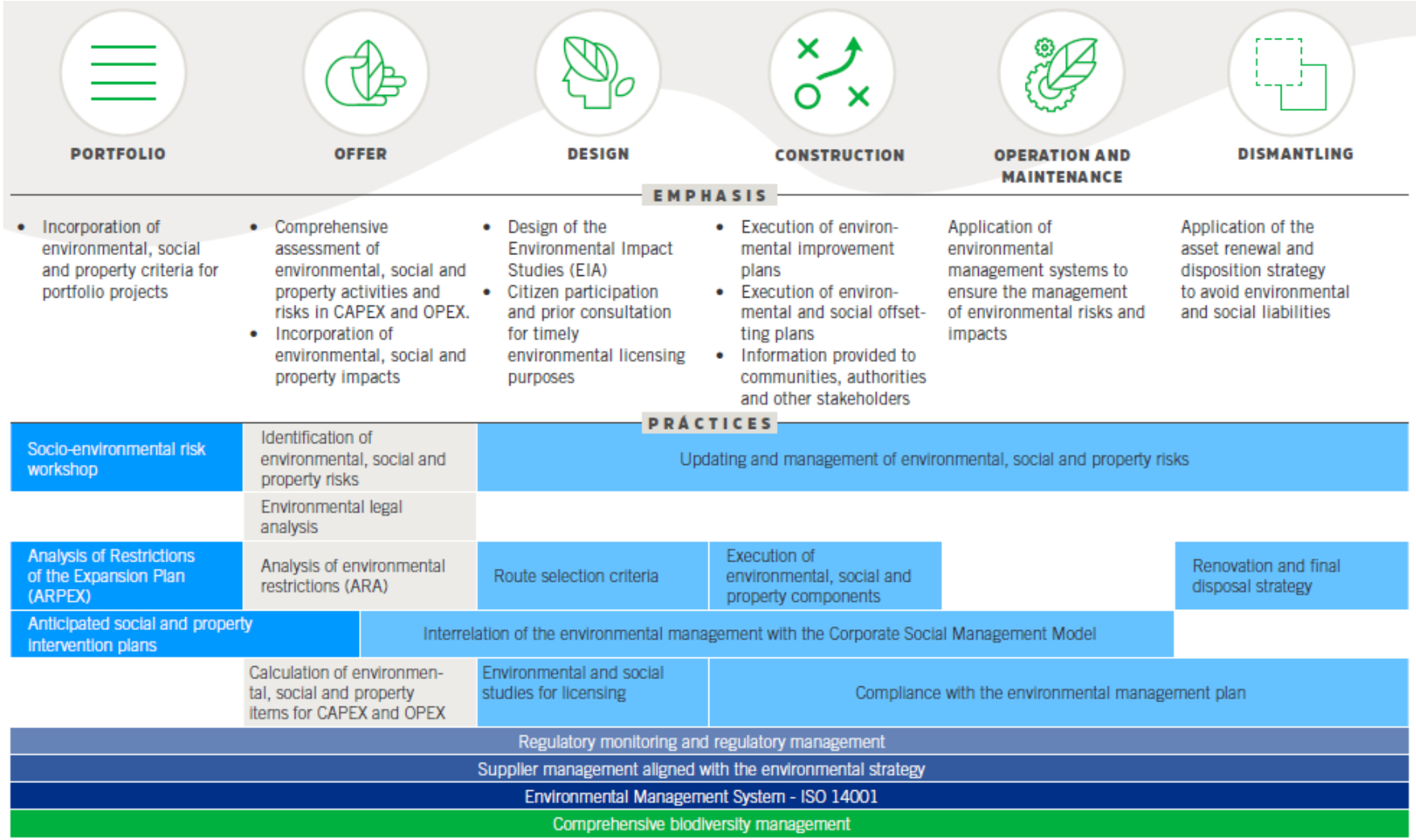
Asset's Life Cycle



Environmental management in the asset's life cycle

In ISA and its companies, biodiversity management is an important issue and is therefore a key component of environmental management in the life cycle of the asset.

Here is an infographic that explains the emphasis and practices used by the company…

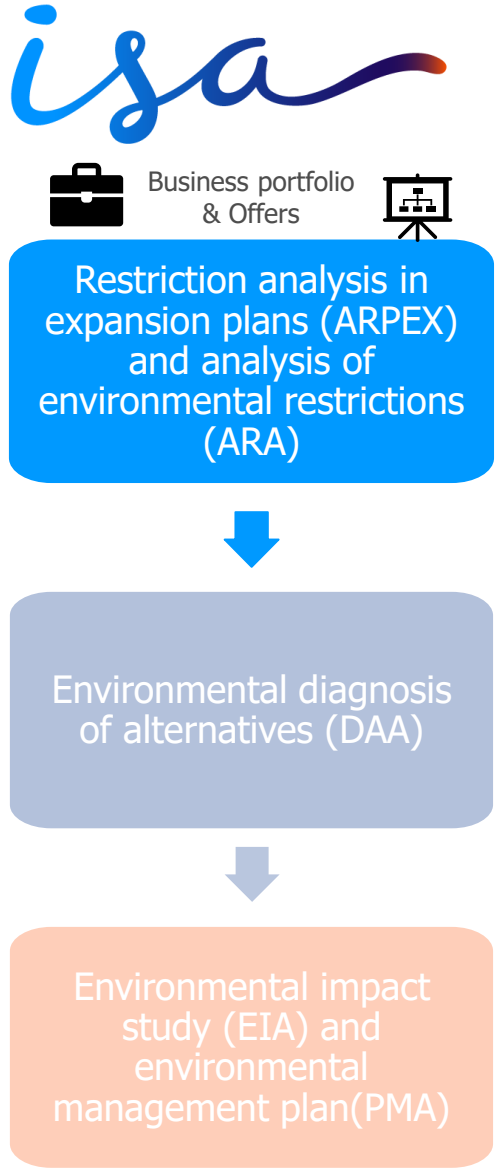


Tools for the mitigation hierarchy

In the project planning stage, **the areas with biodiversity restriction** included in the ARPEX are identified.

The **ARPEX contributes to the selection and prioritization of the offers of the group's business portfolio**, through the **analysis of the environmental, social and property problems** of future projects, using the **GIS technology** in order to generate mitigation actions. This tool was done for all the projects of the expansion plan of the countries where ISA is present.

The **ARA helps to select a preliminary route of a project for the preparation of an offer,** considering environmental, engineering and property issues. These processes contribute to the **prioritization of projects that minimize impacts** on biodiversity.



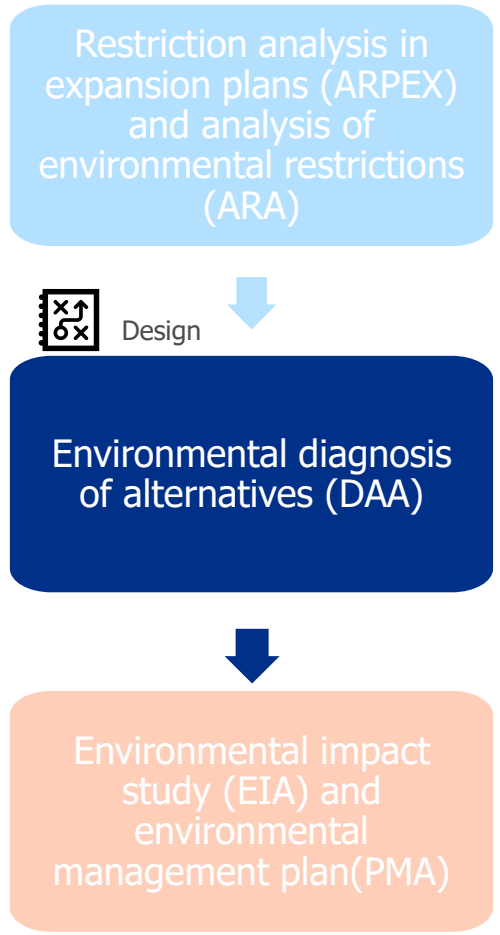
Tools for the mitigation hierarchy

The **DAA evaluates and compares the different development options of a project** presented by the company.

These options should take into account the **geographical environment, biotic, abiotic and socioeconomic characteristics, the analysis of the effects and risks of the project**; As well as possible **solutions and measures of control and mitigation** for each one of the alternatives.

For the **physical-biotic characterization** of the area of influence of the project, the **databases of threatened species of national and regional order**, such as the **IUCN Red books and the list of CITES species** are consulted.

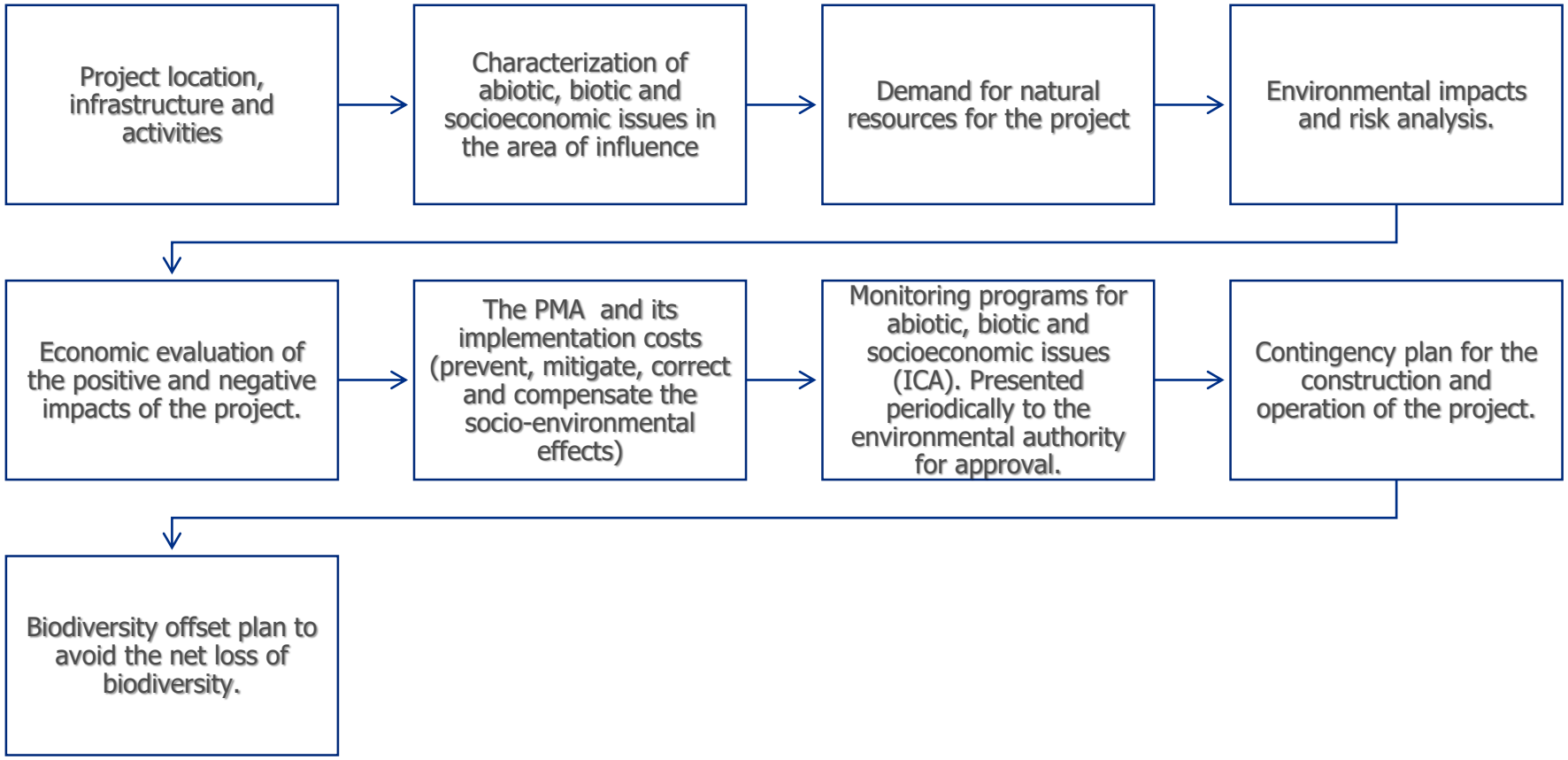
The foregoing provides the necessary elements to **select the alternative that optimizes and rationalize the use of natural resources and avoids or minimizes the risks, effects and negative impacts** that may be generated.



Tools for the mitigation hierarchy

Once **the environmental authority selects the best alternative for the project**, the EIA is produced.

ISA and its companies have **manuals, procedures and tools to manage the impacts identified in the EIA**, which is the basic instrument for **decision-making in projects** that require **environmental licensing** and are **available to the public**. In general, this study includes:



Restriction analysis in expansion plans (ARPEX) and analysis of environmental restrictions (ARA)

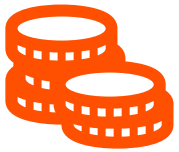
Environmental diagnosis of alternatives (DAA)

Environmental impact study (EIA) and environmental management plan(PMA)

Design & Maintenance

Mitigating impacts on biodiversity: Forest optimization - Business case

ISA and its companies incorporate the concept of eco-efficiency and minimization of environmental impacts and risks, especially in biodiversity. We established indicators to reduce plant cover intervention throughout the life cycle of assets. After calculating the baseline and the achievements of the initiatives, we set the goal of reducing the area of clean plant cover for project construction by 10%.



- Lower cost in the life cycle of the asset
- Time saving in the process
- Avoids fines, penalties or offsets
- Applied to the financial assistance of the State subsidy, bail, incentive for investment
- Tax abatement
- Early warning of risks
- Reputation

- Manages commercial risks and stakeholders
- Contributes to social acceptance by the community

- Improves the opportunity to enter the projects
- Improves the quality
- Increases asset usage (availability, usage rate)
- Improves operation and maintenance effectiveness
- Decreases impact or pollution
- Minimizes waste and consumption of resources and energy
- Environmentally friendly products
- Opens the green or qualified market

Implementation of the mitigation hierarchy: Regulation

We comply with and respect the legislation established in each country in which we operate, as well as all the agreements, treaties and voluntary commitments acquired by ISA and its companies. These regulations establish the procedure and the mechanisms to obtain "without net loss" or "net improvement". In addition, we go further with the protection of biodiversity with our voluntary "Conexión Jaguar" program.

COLOMBIA

Resolution 0256 of 2018 approves the updating of the Manual of biotic offset, which allows us to design measures to manage the negative impacts of a Project:

Prevent environmental impacts, minimize and correct those that cannot be avoided and ultimately carry out the necessary offset measures.

PERÚ

The General Environmental Law (law 28611), in article 6, establishes that environmental management has as priority objectives to monitor and prevent environmental degradation.

When it is not possible to eliminate the causes that generate it, the appropriate mitigation, recovery, restoration or offset measures are adopted.

CHILE

In accordance with Supreme Decree 40 of 2012, offset measures can only be applied when it is not possible to mitigate or repair a significant impact.

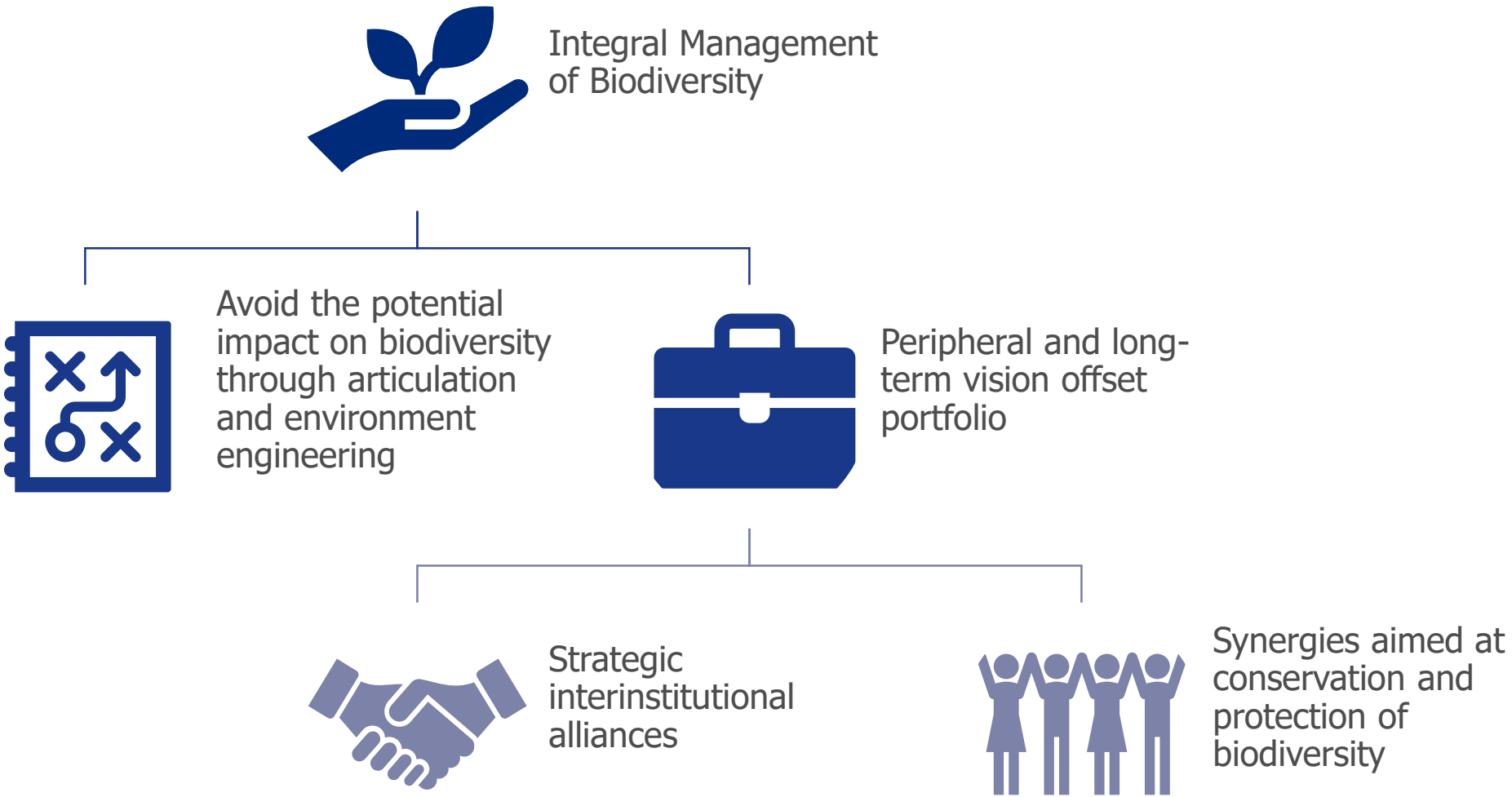
Biodiversity offset requires the execution of measurable actions that compensate for the residual impacts of a biodiversity project (after establishing mitigation and reparation measures), aimed at producing a positive alternative effect and equivalent for not obtaining net losses or a net increase of biodiversity.

BRASIL

The Federal Decree 4340 / 2002 Establishes that for the purposes of environmental offset (defined in law 9,985/2000), the Environmental authority shall establish the degree of impact of the EIA carried out in the process of granting environmental licenses.

It considers the negative and non-mitigating impacts and possible risks that may compromise the quality of life of a region or cause damage to natural resources.

Integral Management of Biodiversity in the framework of the transmission of high voltage - electrical energy



Offset portfolio in Colombia

- Strategy oriented to a positive impact and with guarantees of permanence in the time, linked with communities and regions. These offsets are close to giving the order to start the contract for the preparation and structuring of a portfolio that will be part of the basic inputs for the specific plans of each project.

Areas Identification

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Identification of efficient and sustainable offset mechanisms over time

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- offset Portfolio: 12.155 ha.
- In offset for the intervention of 3.927 ha of natural hedges

- Protection of biodiversity
- Potentiate Conservation Initiatives / Communities coordinated restoration, supported by authorities and others

offset Strategies

- Conservation of protected areas
- Payments for environmental services
- Habitat Banks
- Forests for Peace
- Lands Acquisition

AREA (HA)	ACTION	PROGRESS / STAGE	TIME
INTERCOLOMBIA			
346	Planting for biodiversity offset	Planting area implemented	Maintenance performed on 2018
1.301	Voluntary protection for GHG offset	Protection of the humid tropical forest degraded by mining and livestock implemented	2018
12.155	Biodiversity-pending offset	About to give order of commencement of the contract by the environmental authority for the preparation and structuring of a portfolio	Maximum term to 2029
REP			
30	Plantation for the offset of the biodiversity of the MAMO project	Pending approval on the part of the national Authority. In the initial permit, 200 hectares of offset were included, however, the real impact was 30 ha thanks to the optimization of the vegetation cut. Most of the projects in Peru cross the desert areas where there was no damage to the vegetation and the offset activities did not have to be done.	It begins planting at the end of 2019 and performs an annual monitoring for 30 years.
CTEEP			
2	Biodiversity offset Plantation	Monitoring stage	It will be monitored according to SMA 32/2014 and is expected to address all indicators for 20 years of monitoring.
INTERCHILE			
564,69	Relocation of herbaceous and shrub species	Pending deployment	The maximum period for implementing the outstanding offsets is 2030. (both compulsory measures and commitments acquired in the environmental license)
131,11	Relocation of herbaceous and shrub species	Maintenance and monitoring	offsets implemented at 2018 that have a maintenance and monitoring period of 5 years.

CONEXIÓN JAGUAR PROGRAM

- Description
- Indicators
- Progress & Goals
- Challeges

CONEXIÓN JAGUAR | isa

Conexión Jaguar is our voluntary sustainability program, a corporate initiative to contribute to biodiversity conservation and climate change mitigation, implementing forestry projects to reduce greenhouse gas emissions, in priority areas for the protection, recovery and connection of natural habitats and corridors for the jaguar in Latin America.

Conexión Jaguar is the legacy of ISA and its companies for the planet and the new generations, the way we reinforce our commitment to sustainability.

ALIADOS TÉCNICOS: south pole PANTHERA

NUESTRO ROL
Programa Conexión Jaguar

We created and directed the implementation of the Conexión Jaguar Program and provided the resources for its development. We assure the sustainability of the program and its permanent growth to increase the coverage in the Jaguar corridor.

For the integral development of Conexión Jaguar, we have the technical support of South Pole Group and Panthera, two world leaders in climate change, sustainability and conservation of big felines.

NUESTROS ALIADOS TÉCNICOS
Programa Conexión Jaguar

CONEXIÓN JAGUAR | UN LEGADO DE ISA Y SUS FILIALES

south pole group

Develops projects and activities that contribute to mitigation and adaptation to climate change. Is a leader in the voluntary carbon bond market. Over the past 7 years, it has sold more than 28 million carbon credits, many of them with the Verified carbon standard (VCS), the climate, communities and biodiversity standard (CCBS) and the Gold Standard (GS).

Within the program, our ally focuses on:

- Analyze the proposed projects and develop your carbon cycle.
- Issue certified carbon credits under standards.
- Commercialize the program's carbon credits.

NUESTROS ALIADOS TÉCNICOS
Programa Conexión Jaguar

CONEXIÓN JAGUAR | UN LEGADO DE ISA Y SUS FILIALES

PANTHERA

It is the world's leading organization, dedicated exclusively to the conservation of the 38 existing species of large wild felines and their ecosystems, with focus on the largest and most threatened, including Jaguar and Puma.

Within the program, our ally is responsible for:

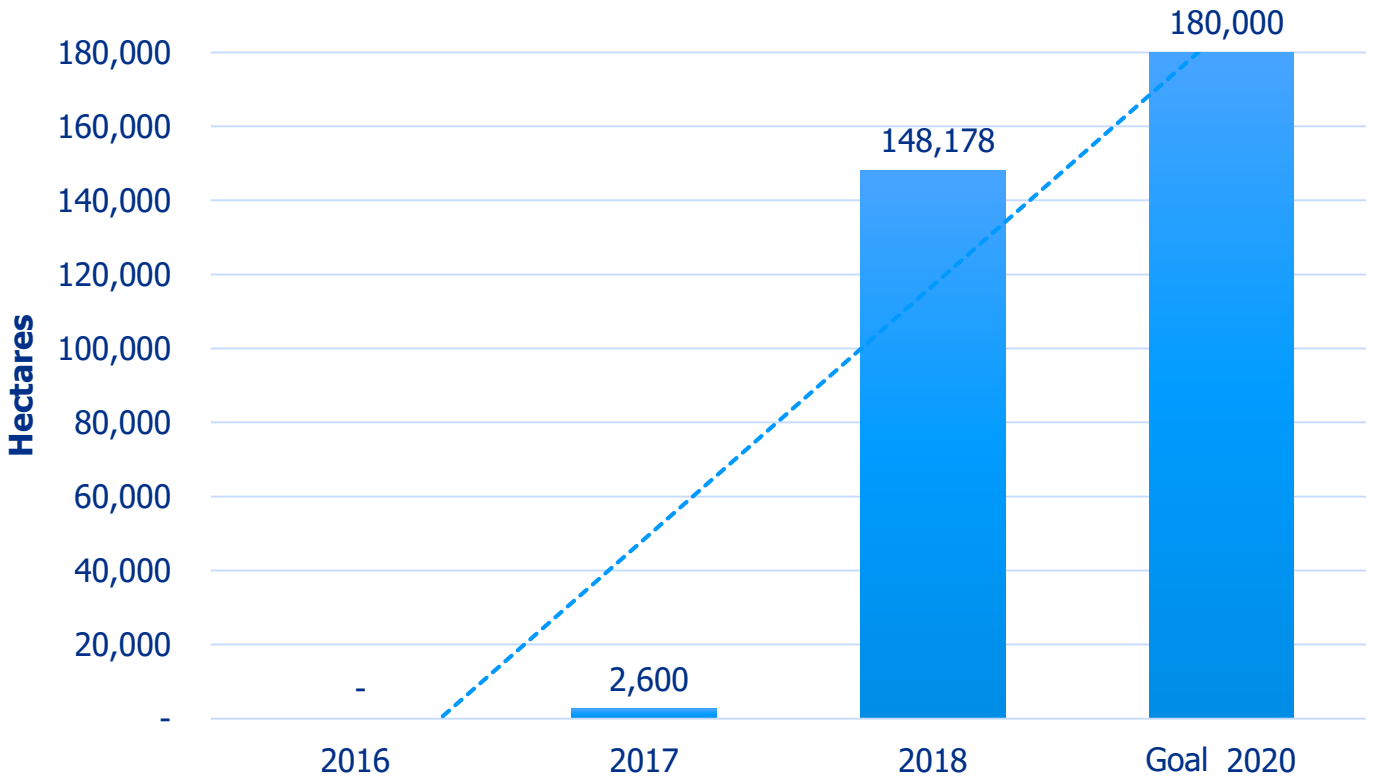
- Providing scientific information on the identification of areas that serve as a Jaguar corridor
- Carrying out the monitoring of the biodiversity in the areas of the projects with emphasis in the large vertebrates.
- Accompanying the implementation of good practices of coexistence and management of conflicts between humans and jaguars or Pumas.
- Assessing the effectiveness of Jaguar conservation measures and their associated biodiversity.

Jaguar Habitat Conservation

ISA and its companies highlight the Jaguar Habitat Conservation as a key indicator of performance for the organization.

This indicator takes into account the area of each of the actions carried out for the conservation of the Jaguar habitat in the current projects, such as Cimitarra, Tierralta (Colombia) and San Martín (Peru).

Sum of the areas of conservation actions for the jaguar habitat



Outstanding findings of the Conexión Jaguar Program

- Sighting of endemic and critically endangered species

Paujil de pico azul *(Crax alberti)*

Tití cabeciblanco *(Saguinus oedipus)*

Progress of the Conexión Jaguar Program

GOAL	YEAR	PROGRESS 2018
Project implemented in Peru	2018	Project REDD +: Concession for conservation Alto Huayabamba-Peru. Led by Amazónicos por la Amazonía (AMPA).
Projects implemented in Chile and Brazil	2018	Process of call, selection and prioritization of projects.
ISA and its energy transmission companies will be carbon neutral	2020	TRANSELCA and Interchile. XM and Intercolombia are carbon neutral from 2015. In 2018 REP managed to be carbon neutral.
12 Projects implemented	2020	Two projects in the implementation of the carbon technical cycle
180.000 hectares of protected jaguar corridors	2020	Protection of about 400 hectares of forests and water sources. Recovery of approximately 2.200 hectares of degraded land. Conservation of 143.928 hectares of montane forest in Peru.

2030 Goals

CONEXIÓN JAGUAR | UN LEGADO DE ISA Y SUS FILIALES

20 internationally certified projects in Latin America.

9.000.000* tCO_2 reduced

15% Colombia emission reduction commitment to 2030 in COP21.

*Depending on the typology of the projects

400.000 ha** of the Jaguar corridor with conservation actions.

**Conservation Projects REDD +

Promote the development of rural communities in the area of influence of the projects

OBJETIVOS DE DESARROLLO SOSTENIBLE

Contributes to the achievement of country goals in biodiversity and climate change, contributing to the fulfillment of international agreements.

Challenges of our Integral Management of Biodiversity

- Continuing the articulation of engineering and the environment, seeking to avoid to the maximum the possible impact on the biodiversity (designs that minimize the interventions on the natural resources and the environment).
- Preventing, minimizing and compensating for impacts on biodiversity during the life cycle of the asset (implementation of good practices in the constructive and operational phase).
- Identifying more efficient and sustainable offset areas and mechanisms over time.
- Strengthening synergies with public and private entities in a continuous way.
- Involving and strengthen relations with communities in the context of offset, generating great benefits for them.
- Advancing the development of the Conexión Jaguar Program and achieving its autonomy and sustainability.