ISA AND ITS COMPANIES' COMPREHENSIVE MANAGEMENT REPORT ON BIODIVERSITY AND ECOSYSTEM SERVICES

Date: December 31, 2024

isa

Table of contents

ISA AND ITS COMPANIES' COMPREHENSIVE MANAGEMENT REPORT ON BIODIVERSITY AND ECOSYSTEM SERVICES

The construction and operation of infrastructure projects generate environmental impacts, consume resources, and emit substances into the environment. Being aware of this, ISA counts on the **ISA 2040 Strategy**, which seeks to **contribute positively** to talent, **communities, and nature,** by contributing significantly to the care of the planet, to the fulfillment of global biodiversity goals,[1] and the achievement of the Sustainable Development Goals, while minimizing environmental impacts of the business and promoting initiatives in favor of the environment in the countries where ISA and its companies are present.

1 COMMITMENT TO THE PROTECTION OF BIODIVERSITY

Through the Corporate Environmental Policy (Approved by the ISA Board of Directors No. 894 of May 24, 2023) and the comprehensive biodiversity and ecosystem services strategy, ISA and its companies commit to:

Contributing to face major challenges of global interest in climate change and biodiversity.	We engage with and contribute to the major challenges of global interest in the areas of climate change and biodiversity, such as: • Contributing to Target 15 of the Global Biodiversity Framework • ANDI's Biodiversity + Business Roadmap
Managing impacts on biodiversity and ecosystem services	We have implemented the mitigation hierarchy, developing actions to avoid, reduce, replace, offset, and positively transform the impacts generated on species and natural ecosystems.
Restoring and conserving ecosystems and their biodiversity	We are committed to the restoration and conservation of ecosystems and their biodiversity, which is why we proactively implement mechanisms to achieve a **positive net impact on biodiversity** and zero net deforestation.
Offsetting biotic impacts	**No net loss of biodiversity:** the objective is to offset the loss of biodiversity in natural terrestrial ecosystems and secondary vegetation, in such a way as to guarantee the effective conservation of an ecologically equivalent area, where it is possible to generate a permanent conservation strategy and/or its ecological restoration so that when compared to the baseline it is ensured that there is no net loss of biodiversity. Target: 15,581 hectares by 2044
Commitment to reduce deforestation and the impact on vegetation cover	Minimize environmental impacts and risks, especially for biodiversity, by implementing actions to reduce the impact on vegetation cover during the life cycle of the assets and to reduce by 10% the impact on vegetation cover for project construction. This commitment is covered by the technical specifications of the contracts of the projects under construction, the HSE manual for contractors, and the

[1] chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.cbd.int/doc/c/2c37/244c/133052cdb1ff4d5556ffac94/cop-15-l-25-es.pdf

	approval by the environmental authority in the license. In this way, suppliers are linked to this commitment.
Respecting current environmental legislation and regulations	We abide by and respect environmental laws and other applicable regulations in each of the countries where we operate, as well as the relevant conventions, agreements, and treaties, and the voluntary commitments made by ISA and its companies.
Caring for priority areas for biodiversity	We value, respect, and support natural and cultural heritage, especially in protected areas of importance for biodiversity in categories I-IV (areas of high biodiversity value), as established in the declarations of the International Union for Conservation of Nature (IUCN).
With environmental excellence throughout the asset lifecycle	We are committed to quality and excellence in environmental management throughout the life cycle of the assets, through actions such as: • Managing environmental impacts with a preventive approach. • Addressing environmental contingencies that may affect natural resources, ecosystems, communities, or their relationships. • Identifying and assessing the risks posed by our operations on the natural systems and social environments where we are present, and implementing the necessary measures to manage them.
Implementing the Environmental Management System	We promote the implementation of Environmental Management Systems that contribute to continuous improvement, promote eco-efficiency and the sustainable use of ecosystem services and natural resources, maximize positive effects, and ensure compliance with environmental performance targets.
Linking stakeholders and communities of the area of influence of the project	We develop effective education, communication, information, and participation processes to strengthen our relationship with the communities and their healthy coexistence with the infrastructure and the environment.
Linking employees	In our employee training plans, we have incorporated courses aimed at strengthening knowledge and good environmental practices in relation to the environmental impacts of each employee's actions.
Implementing the Circular Economy strategy	We seek to manage the waste generated throughout the life cycle of our assets and our value chain in a proactive manner, with a circularity approach, measuring our impact.
Generating alliances to strengthen the results obtained	We promote the creation of alliances with other entities to help protect and recover natural resources and biodiversity.
Linking suppliers, contractors, subcontractors, and allies to the commitments and statements of ISA and its companies	These statements and other environmental obligations are mandatorily shared with and promoted among suppliers, contractors, subcontractors, and other business partners throughout the life cycle of the assets. We seek a due diligence process for contractors and allies, spreading our policy to guarantee the best environmental practices through actions such as: • Pollution prevention and proper waste management. • Energy and greenhouse gas emission management. • Efficient resource management. • Protection of Natural Ecosystems and Biodiversity
Commitment to making positive contributions to nature and biodiversity	Through the Conexión Jaguar Program, we voluntarily seek to generate positive contributions to nature and contribute to the fight against deforestation by supporting nature-based solutions projects aimed at the conservation and restoration of ecosystems and their biodiversity, the mitigation of climate change and the improvement of the living conditions of the communities present in the areas of influence of the projects. Program targets 2030: • Support for at least 20 rural initiatives in Latin America • Effective protection of approximately 400,000 hectares across the Jaguar Corridor

	• Reduction of 9 million tCO2 (in the lifetime of the project) • Promotion of the development of rural communities in the area of influence of the projects

2 ASSESSMENT OF RISKS, DEPENDENCIES, IMPACTS, AND OPPORTUNITIES FOR BIODIVERSITY

2.1 Biodiversity risk assessment

Risk management in ISA and its companies has a short-term and medium-term vision with corporate risk management. In the long term, emerging risks are considered, and additionally, business continuity management is considered.

The assessment of risks to biodiversity is made, in the short and medium term, based on the risk typologies "Environmental" and "Natural phenomena and extreme climatological changes" through a Top-down and Bottom-up approach, considering:

- the results of the analysis of environmental impacts and aspects (ISO 140001), and
- comprehensive biodiversity management (paragraphs 4.1 and 4.2) where the ecosystem services provided by nature are analyzed, prioritizing regulation services (climate, erosion control, wind protection, flood control, erosion rates, and mitigation of mass movements) and in which disaster risk management acts as a protection measure and business continuity management.

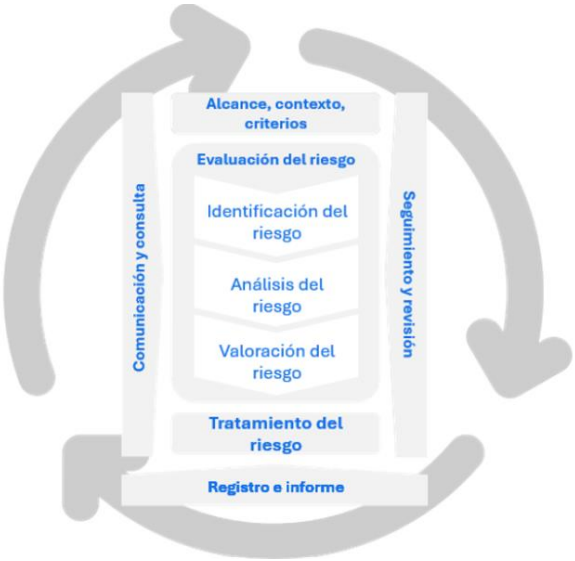
In the long term, from the point of view of emerging risks, biodiversity loss impacting the organization is evaluated mainly in terms of stricter regulations, the need for greater investment, and potential project delays. However, it also offers opportunities to implement actions that harness the power of nature to address some of our challenges.

ISA's comprehensive risk management (ERM) continuously identifies, analyzes, evaluates, monitors, and communicates the risks to which ISA and its companies are exposed to manage the impacts on the achievement of business objectives and financial and reputational resources. ISA identifies its risks, estimates their probability of occurrence and consequences in different scenarios, and defines and implements prevention and mitigation actions through an interdisciplinary group with representatives of the asset's life cycle (supply, design, construction, operation, and maintenance), every quarter.

In emerging risks, risks that may significantly affect the business models of ISA and its companies are identified based on trends. This exercise is made on an annual basis, and assumptions are reviewed every six months.

Additionally, biodiversity risk management at ISA and its companies is based on international standards and best risk management practices, such as ISO 31000, as well as the internal methodology established for this purpose.

The comprehensive risk management process at ISA and its companies involves the systematic and approved application of policies, procedures, and activities for communication and consultation, setting context and evaluation, processing, monitoring, and review. This process is shown below.



For ISA and its companies, risk is defined as any uncertain event that could interfere with the achievement of objectives. In the identification stage, risks are classified according to their causes and consequences, which allows probability and impact to be estimated in the analysis stage, so that the necessary risk management measures can be defined in the management stage.

As part of the risk management model of ISA and its companies, risk assessment depends on the nature of each risk category analyzed, and prioritization is based on the established levels or limits, defined according to the criteria of appetite and tolerance for the dimensions or financial resource, reputation, and risk statements or aversions. The review and approval of the prioritization criteria and statements is the responsibility of the Audit and Risk Committee.

Dimensión o recurso financiero
Se utilizan valores continuos de probabilidad e impacto. La valoración es cuantitativa

Escala Recurso Financiero
USD millones

0	≥11	≥23	≥62

Dimensión o Recurso Reputacional
Se utilizan valores discretos de probabilidad e impacto. La valoración es semicuantitativa

Aprobado en el Comité de Auditoría y Riesgos realizado en Agosto/2024

Defined statements or aversions are red lines or boundaries of an action or decision regarding key comprehensive risk management topics.

The statement associated with biodiversity is defined as "Aversion to irreparable* environmental impact" (*Definition of "irreparable": Absolute loss of the biodiversity component in the abiotic, biotic, and social sense. This statement is monitored considering the management and assessment of environmental aspects and impacts within the framework of the ISO14001 standard.)

The table below shows the different severity scales with their descriptions related to the statement:

SEVERITY	LEVEL	DESCRIPTION
Severity: the relationship between the extent of an impact in its area of influence and the recoverability or non-recoverability of the effect following human intervention.	**N/A**	The impact can't occur.
	Mild	1. There are no breaches of current regulations and specific administrative acts. 2. There is no report of complaints or claims related to company actions. 3. The defined environmental performance indicators are met. 4. The area of environmental impact includes the area of the project, works, activity, or installation. 5. Impact that can be recovered immediately or reversed in the short term (less than one year).
	Moderate	1. There are violations of current regulations and specific administrative acts that can be remedied and do not pose a risk of sanctions. 2. Complaints related to the company's actions are filed. 3. There are non-compliance with environmental performance indicators that deviate 5% from expectations. 4. The area of environmental impact extends to part or all of a neighborhood or district. 5. The impact is recoverable or reversible in the medium term (between 1 and 5 years).
	Critical	1. There are prolonged or persistent breaches of legal limits or administrative acts. 2. Claims related to the company's actions are filed. 3. Failure to meet environmental performance indicators (10% deviation from expectations). 4. The area of environmental impact extends to part or all of a municipality. 5. The impact generated is mitigable or reversible in the long term (5-10 years).
	Very critical	1. There were breaches of legal limits or administrative acts that led to disciplinary proceedings or similar. 2. The communities file complaints or claims before government entities. 3. Failure to comply with the indicator is more than 10% higher than expected. 4. The area of environmental impact extends to part or all of a department or region. 5. The impact is irrecoverable and irreversible; the affected resource cannot be restored to its original condition and requires measures to offset irreparable damage, or its handling requires more than 10 years.

In identification, for biodiversity, ISA and its companies consider dependencies according to the nature of our businesses as a fundamental part of the root cause analysis. The biodiversity impact analysis considers the impact that the company can make on ecosystems in the development of its operations. Likewise, ISA and its companies take into account the impact that can be generated on the business derived from their presence in ecosystems. This two-way analysis enriches the view of the consequences of risk.

In the case of risks associated with biodiversity, some frameworks and methodologies are followed such as: the TNFD (Taskforce on Nature-related Financial Disclosures) reference framework and specifically the LEAP (Location of Dependencies and Environmental Impacts) methodology, Evaluation of derived risks and opportunities, Appraisal (assessment) of the economic impact of these factors, and Publication (disclosure) of the information, the "Guía metodológica para la evaluación del Impacto Ambiental" (Methodological Guide for the evaluation of the Environmental Impact) by Conesa Fernández – Vítora 2010, as well as the "Metodología general para la elaboración y presentación de estudios ambientales" (General methodology for the preparation and presentation of environmental studies) by the Ministry of Environment and Sustainable Development, 2018[2]. For the construction and operation of infrastructure projects, the impacts on biodiversity and ecosystem services are localized, assessed, and addressed.

2.2 Evaluation of biodiversity dependencies

According to the sector of our business, the ENCORE tool provides us with details of ecosystem services with their materiality, which allows us to identify possible causes of risks, as well as potential opportunities.

Below are the main dependencies identified for ISA and its companies in the ENCORE tool:

Ecosystem service/dependency	Definition	Supplier	Materiality
Water supply	Water supply services reflect the combined ecosystem contributions of water flow regulation, water purification, and other ecosystem services to the supply of water of appropriate quality to users for various uses, including household consumption. This is a final ecosystem service.	Water	Very low

[2] According to the regulations in force in each country.

Global climate regulation services	Global climate regulation services are the ecosystem contributions to the regulation of the chemical composition of the atmosphere and oceans that affect global climate through the accumulation and retention of carbon and other GHG (e.g., methane) in ecosystems and the ability of ecosystems to remove (sequester) carbon from the atmosphere. This is a final ecosystem service.	Atmosphere Structural and biotic integrity Soils and sediments Species Water	Very low
Rainfall pattern regulation services (at sub-continental scale)	Rainfall pattern regulation services are the ecosystem contributions of vegetation, in particular forests, in maintaining rainfall patterns through evapotranspiration at the sub-continental scale. Forests and other vegetation recycle moisture back to the atmosphere where it is available for the generation of rainfall. Rainfall in interior parts of continents fully depends upon this recycling. This may be a final or intermediate service.	Atmosphere Structural and biotic integrity Water	Very low
Local (micro and meso) climate regulation services	Local climate regulation services are the ecosystem contributions to the regulation of ambient atmospheric conditions (including micro and mesoscale climates) through the presence of vegetation that improves the living conditions for people and supports economic production. Examples include the evaporative cooling provided by urban trees ('green space'), the role of urban water bodies ('blue space') and the contribution of trees in providing shade for humans and livestock. This may be a final or intermediate service.	Atmosphere Structural and biotic integrity Species Water	Low
Soil and sediment retention services	Soil erosion control services are the ecosystem contributions, particularly the stabilising effects of vegetation, that reduce the loss of soil (and sediment) and support use of the environment (e.g., agricultural activity, water supply). This may be recorded as a final or intermediate service. Landslide mitigation services are the ecosystem contributions, particularly the stabilising effects of vegetation, that mitigates or prevents potential damage to human health and safety and damaging effects to buildings and infrastructure that arise from the mass movement (wasting) of soil, rock and snow. This is a final ecosystem service.	Structural and biotic integrity Soil geomorphology Ocean geomorphology Soils and sediments	Low
Solid waste remediation	Solid waste remediation services are the ecosystem contributions to the transformation of organic or inorganic substances, through the action of micro-organisms, algae, plants and animals that mitigates their harmful effects. This may be recorded as a final or intermediate service.	Structural and biotic integrity Species	Low

Water flow regulation services	Baseline flow maintenance services are the ecosystem contributions to the regulation of river flows and groundwater and lake water tables. They are derived from the ability of ecosystems to absorb and store water, and gradually release water during dry seasons or periods through evapotranspiration and hence secure a regular flow of water. This may be recorded as a final or intermediate ecosystem service. Peak flow mitigation services are the ecosystem contributions to the regulation of river flows and groundwater and lake water tables. They are derived from the ability of ecosystems to absorb and store water, and hence mitigate the effects of floods and other extreme water-related events. Peak flow mitigation services will be supplied together with river flood mitigation services in providing the benefit of flood protection. This is a final ecosystem service.	Atmosphere Structural and biotic integrity Soil geomorphology Water	Very low
Flood mitigation services	Coastal protection services are the ecosystem contributions of linear elements in the seascape, for instance coral reefs, sand banks, dunes or mangrove ecosystems along the shore, in protecting the shore and thus mitigating the impacts of tidal surges or storms on local communities. This is a final ecosystem service. River flood mitigation services are the ecosystem contributions of riparian vegetation which provides structure and a physical barrier to high water levels and thus mitigates the impacts of floods on local communities. River flood mitigation services will be supplied together with peak flow mitigation services in providing the benefit of flood protection. This is a final ecosystem service.	Structural and biotic integrity Soil geomorphology	Medium
Storm mitigation services	Storm mitigation services are the ecosystem contributions of vegetation including linear elements, in mitigating the impacts of wind, sand and other storms (other than water related events) on local communities. This is a final ecosystem service.	Structural and biotic integrity Land geomorphology Ocean geomorphology	Medium
Noise attenuation services	Noise attenuation services are the ecosystem contributions to the reduction in the impact of noise on people that mitigates its harmful or stressful effects. This is most commonly a final ecosystem service.	Atmosphere Structural and biotic integrity Species Water	Very low

In particular, for one of the ISA companies, ISA INTERCOLOMBIA, an initial pilot was implemented to identify the dependencies of the business on nature and biodiversity. This exercise was carried out in the Sabanalarga Bolívar 500 kV Transmission Line project, under the guidelines established in the terms of reference TdR-17 of 2018 and General

Methodology for the Preparation and Presentation of Environmental Studies of 2018. We identified the ecosystem services provided by the different ecosystems located in the area of influence of the projects under construction and operation, and estimated the demand for resources.

The ecosystem services of this exercise are grouped into 4 types:

- **Cultural ecosystem services**: non-material benefits obtained from ecosystems through spiritual enrichment, cognitive development, reflection, recreation, and aesthetic experiences.
- **Provisioning ecosystem services:** goods and products obtained from ecosystems, such as food, fiber, timber, water, and genetic resources.
- **Regulating ecosystem services:** benefits resulting from the regulation of ecosystem processes, including maintenance of air quality, climate regulation, erosion control, human disease control, and water purification.
- **Supporting ecosystem services:** ecological services and processes necessary for the provisioning and existence of other ecosystem services, including primary production, soil formation, and nutrient cycling, among others.

These services were classified considering the degree of dependence of the project on ecosystem services (see **¡Error! No se encuentra el origen de la referencia.**).

Table 1. Criteria for defining the degree of dependence of the project on ecosystem services.

DEGREE OF DEPENDENCE OF THE PROJECT ON ECOSYSTEM SERVICES	
High dependence	The activities that are an integral part of the project directly require ecosystem services
Medium dependence	Some secondary activities that are an integral part of the project directly require ecosystem services
Low dependence	The main or secondary activities of the project do not directly require the service

2.2.1 Dependencies identified in the Project

As a result of this exercise, a medium-high dependence on regulation and support services such as flood control, water flow regulation, erosion rate control, mass movement attenuation, and wind protection is identified (see **¡Error! No se encuentra el origen de la referencia.**).

Table 2. Ecosystem services in relation to project impact

Ecosystem service category	ES* identified	Dependence of communities on ES	Dependence of the Project on ES	Impact of the Project on ES	ES trend
Provisioning	Water	Medium	Low	Low	Stable
	Sand and rocks	Low	Low	Low	Stable
	Wood	Medium	Low	High	Stable
	Fibers and resins	Low	Low	Low	Stable
	Biomass	Low	Low	High	Stable
	Meat and hides	Low	Low	Low	Stable
	Medicinal plants	Low	Low	Medium	Stable
	Natural ingredients	Low	Low	Low	Stable
	Livestock	Low	Low	Low	Stable
	Agriculture	Low	Low	Low	Stable
Regulation and support	Landscape	Medium	Medium	Medium	Stable
	Erosion control	Low	Low	Low	Stable
	Climate regulation	Low	Low	Low	Stable
	Regulating ecosystems	Low	Low	Low	Stable
Spiritual and religious, recreation, and tourism	Recreation and tourism	Low	Low	Low	Stable
	Spiritual and religious	Low	Low	Low	Stable

This exercise culminated in the results mentioned above and served as an example for other similar projects.

2.3 General methodology for impact assessment

In line with the risk management methodology of ISA and its companies, the general methodology for impact assessment is explained below, according to the TNFD framework and specifically the LEAP methodology: Locating environmental dependencies and impacts; Assessing the resulting risks and opportunities; Evaluating the economic impact of these factors; and Publishing (disclosing) the information.

2.3.1 Locating

- **Definition of area of influence**: The area of influence is the area in which the environmental impacts caused by the development of the project, work, or activity on the different environments (abiotic, biotic, and socioeconomic) and in each of the components are manifested and have an influence.

  The identification and delimitation of the area of influence of the biotic environment components takes into account the space and time scales and takes the ecosystem as the minimum unit of analysis. It should be noted that this is not limited to the

areas covered by the project, where impacts can be seen immediately, but extends beyond them, depending on the potential impacts it may generate.

- **Characterization of the biotic environment and ecosystem services (ESs):** Once the area of influence has been defined, qualitative and quantitative information is collected on the ecosystems present there, determining their functionality and structure, which allows us to know the current characteristics of the environment in the area of influence of the project, and subsequently, to make an adequate comparison of the variations of these characteristics during the development of the different activities that are part of the project stages. This characterization also includes the identification of strategic and sensitive ecosystems and protected areas at the local, regional, and national levels. In addition, the ESs provided by the ecosystems present in the area of influence are identified and described.

2.3.2 Analyzing

- **Analysis of the ecosystem services (ESs):** Establish the relationships between ecosystem processes, ecosystem functions, biological structures, and ESs, highlighting which processes allow the development of which functions, which functions are linked to which structures, and which structures provide which ESs; for example, nitrogen accumulation in organic matter (process) of plants (structure) allows the removal and retention of nutrients (function), which in turn, allows water purification (service); it is necessary to set appropriate space and time scales for the study of ESs.

    - Determining the status of ESs by defining and using technical indicators
    - Identification of type and calculation of the number of direct beneficiaries
    - Evaluation of the dependence of the communities on ESs and classification of said dependence in categories (high, medium, or low)
    - Evaluation of the dependence of the communities on ESs and classification of said dependence in categories (high, medium, or low)
    - Evaluation of ESs dynamics

- **Assessment of impacts on biodiversity and ESs:** Impacts are identified and assessed applying the "Guía metodológica para la evaluación del Impacto Ambiental" by Conesa Fernández - Vítora 2010, as well as the "Metodología general para la elaboración y presentación de estudios ambientales" of the Ministry of Environment and Sustainable Development 2018[3]. This assessment makes it possible to identify the significant impacts that could be generated on biodiversity and ESs as a result of the construction and operation of the projects and to propose the management and monitoring measures necessary to prevent/avoid/correct/mitigate or offset them.

  Initially, the starting point is the characterization of the area of influence of each of the environments, which describes the general conditions of the area without the

[3] According to the regulations in force in each country.

effects of the Project and constitutes the basis for analyzing how the Project will modify it. The above indicates that two (2) scenarios are analyzed: The determination of environmental impacts With and Without the Project, following the steps described below:

The first step is to identify the elements, qualities, and processes that are part of the environment and that can be modified, i.e. environmental aspects.

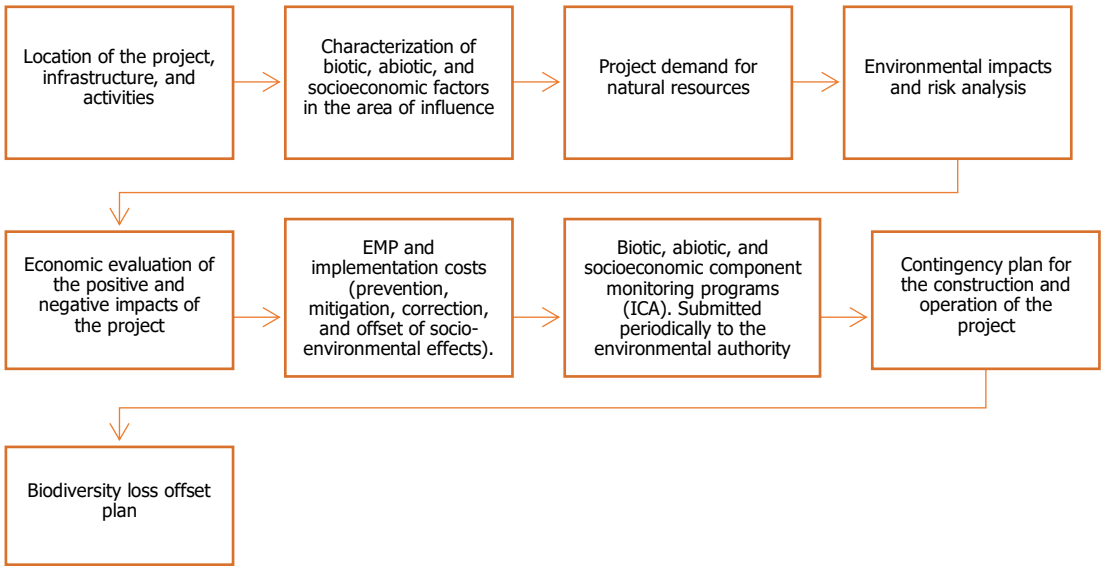
Second, environmental impacts are identified and rated using a scale of values that determines the degree or importance of the possible impact on current anthropic activities and the implementation of the project.

The results of the impact workshops addressed to the communities of the project's area of influence are taken into account throughout the impact identification and assessment process.

The attributes to be evaluated during the impact assessment correspond to:

- Impact classification
- Impact intensity
- Impact extent
- Impact moment
- Impact persistence
- Impact reversibility
- Impact recoverability
- Impact synergy
- Impact accumulation
- Impact effect
- Impact periodicity

ISA and its companies have manuals, procedures, and tools in place to manage the impacts identified during the Environmental Impact Assessment (EIA), which is the basic decision-making tool for projects requiring an environmental license and is available to the public (see Graph1).



Graph1. Environmental Impact Study steps

2.3.3 Main impacts on biodiversity identified for the Energy Transmission and Roads business units

The construction of roads and transmission lines are linear projects that pass through a significant number of ecosystems. For their construction and operation, it is necessary to identify and assess the significant impacts that could be generated on biodiversity, as well as the actions aimed at preventing, mitigating, and offsetting the impacts on natural ecosystems throughout the life cycle of the assets.

Biodiversity impacts identified for the Energy Transmission and Roads business units are as follows:

- Modification of vegetation cover
- Modification of ecosystem connectivity
- Impact on fauna species
- Impact on individuals of endemic; threatened; protected; or ecologically, economically, and culturally relevant flora species
- Impact on strategic ecosystems and sensitive areas
- In energy transmission projects, it is necessary to interfere with vegetation growing in the right-of-way, tower sites, access roads, and clearing areas
- In some sectors adjacent to the highway, land uses change, which contributes to the transformation of ecosystems to be used for industrial, commercial, or residential development.

These impacts are generated during project construction and operation activities. For the Energy Transmission business unit, land use changes are permanent only at tower sites and substations. In the easement areas these changes can be permanent or temporary.

It is important to note that during the environmental impact assessment, depending on the characteristics of the projects, location, vegetation cover, and other aspects evaluated, the result of the assessment shows that the significant impacts on biodiversity are irrelevant or moderate, as in the case of REP/CTM.

2.4 Biodiversity and ecosystem service (ES) risk assessment

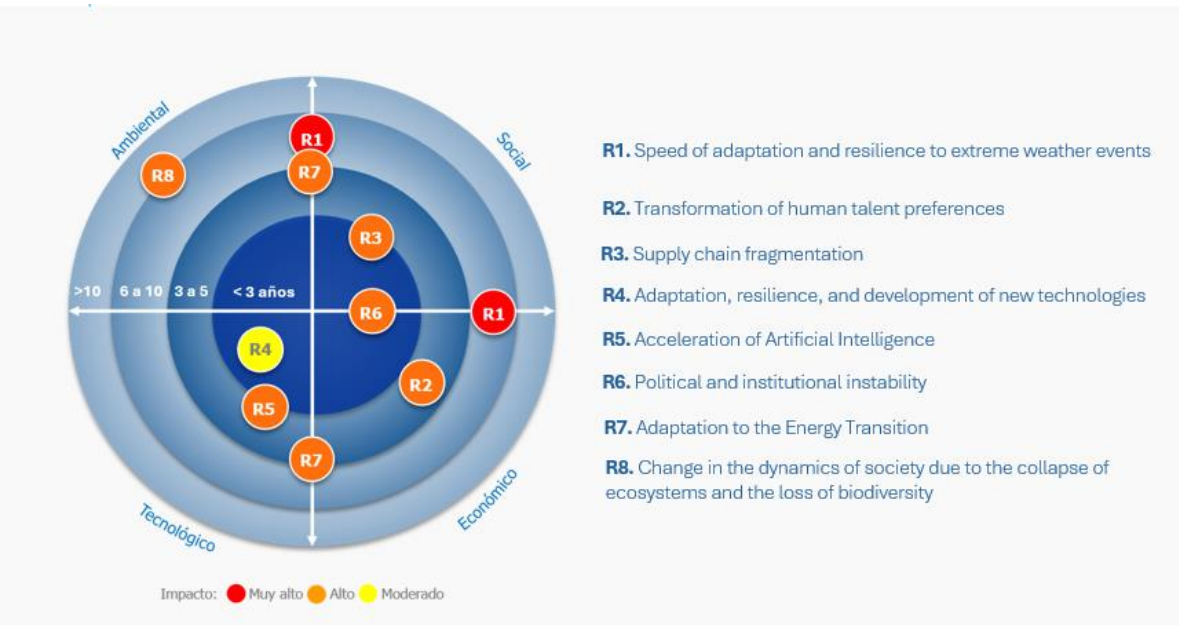
After developing each of the stages of the methodology described above, at the end of 2024, 36 types of risks have been recorded for the different stages of the life cycle and the different geographical areas where operations are carried out, summarized in the following table:

Lifecycle stage	Type of risk	Countries
Bids	Plant suppression	Colombia, Brazil, and Peru
	Rescue of flora and fauna	
	Increase in avifauna	
	Terrestrial wildlife monitoring	
	Wildlife deterrence	
Projects	Alteration of flora and fauna communities	Colombia, Chile
	Offsetting areas	
	Rescue of flora and fauna	
	Protection of endangered species	
Operation	Wildlife run over	Colombia, Peru, Brazil, Chile, and Bolivia
	Impact on natural ecosystems	
	Vegetation pruning and transplanting	
	Burning or fires	
	Waste disposal or gas leakage	
	Land use	
	Mass movements	
	Demolition and waste	

In the risk analysis performed by ISA and its companies throughout the asset life cycle, 14 types of consequences (impacts) related to biodiversity have been identified, in addition to the consequences identified in the impact on the company's operations. The following table summarizes the impacts we have identified as potentially affecting biodiversity in the course of our operations:

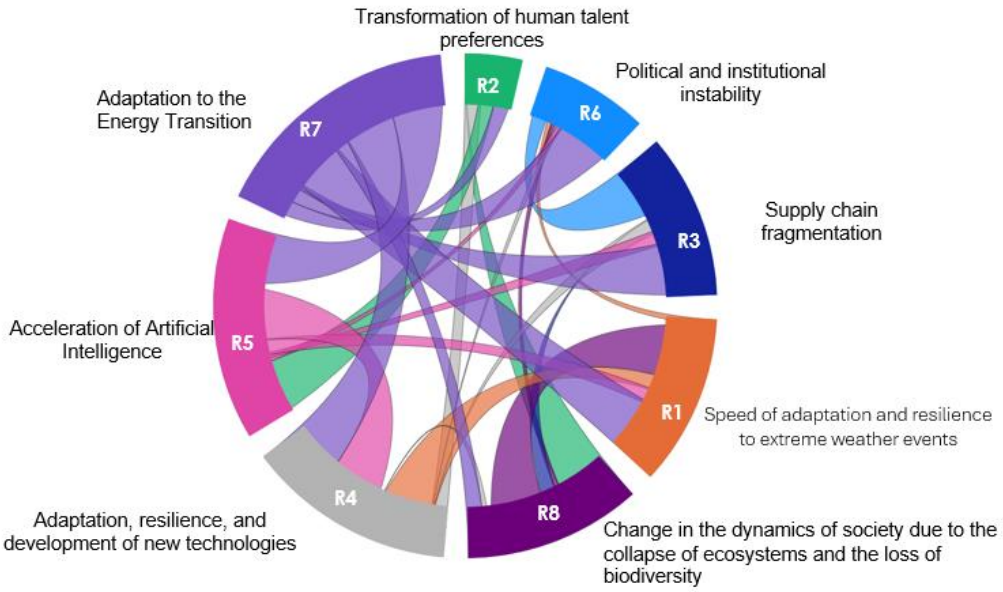
Type of impact	Consequence	Countries
On biodiversity	Mangrove impact	Colombia, Peru, Chile, Brazil, and Bolivia
	Change in the visual appearance of the landscape	
	Wildlife roadkill	
	Spills	
	Impact on fauna and flora	
On the operations of ISA and its companies	Project delay	
	Capex deviation due to offsets and flora and fauna rescue higher than estimated	
	Maintenance delay	

In addition to the methodology described above for biodiversity risk management, ISA and its companies have a methodology in place for identifying and assessing emerging risks, which takes a long-term view, considering global trends, particularly those related to the energy sector. In this regard, the exercise was carried out, and one risk related to biodiversity was identified. Below is the emerging risk roadmap for ISA and its businesses:



As you can see, one of the emerging risks is: "R8. Change in the dynamics of society due to the collapse of ecosystems and loss of biodiversity" in the environmental dimension. This risk was rated orange (high) and is expected to materialize within 6 to 10 years. It is worth clarifying that during the exercise, early implementation was discussed, understanding that some relevant signs have begun to appear. However, it was considered that the impacts would be most catastrophic in the 6 to 10 year range.

Below is a correlation map between emerging risks, which shows a high correlation between the risks of adapting to the energy transition and speed of adaptation and resilience to extreme weather events.



During this exercise, administrative measures implemented by ISA and its companies to mitigate the risk were also identified, recognizing the importance of beginning to manage them now. The main measures contributing to the reduction of this indicator are highlighted, along with the actions being taken:

- Relationship with authorities and governments to venture into new nature-based solutions (new green corridors, modification of works, among others).
- Promote sectoral development, biodiversity loss offsetting.
- Promote opportunities with institutions, communities, and agents to enhance programs with a positive impact on the environment.

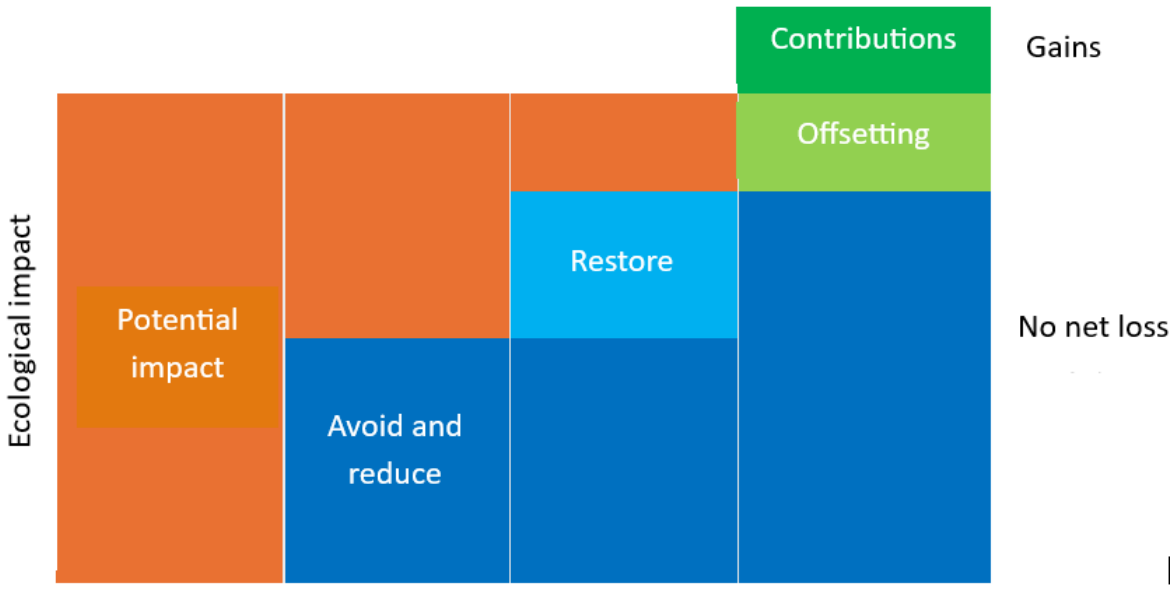
2.5 Biodiversity opportunity assessment

Complementary to the risk assessment methodology, dependencies, and impacts previously outlined, opportunities that seek to generate positive contributions to biodiversity are assessed and developed. One example of this is our voluntary commitment to the Conexión Jaguar Program, which seeks to preserve natural ecosystems and promote the connectivity of jaguar (Panthera onca) habitats in Latin America, while contributing to climate change mitigation and strengthening the development of rural communities. The detail of this initiative is developed in section 3.2.5 Actions to transform positively.

3 MANAGING IMPACTS ON BIODIVERSITY AND ECOSYSTEM SERVICES THROUGH THE MITIGATION HIERARCHY

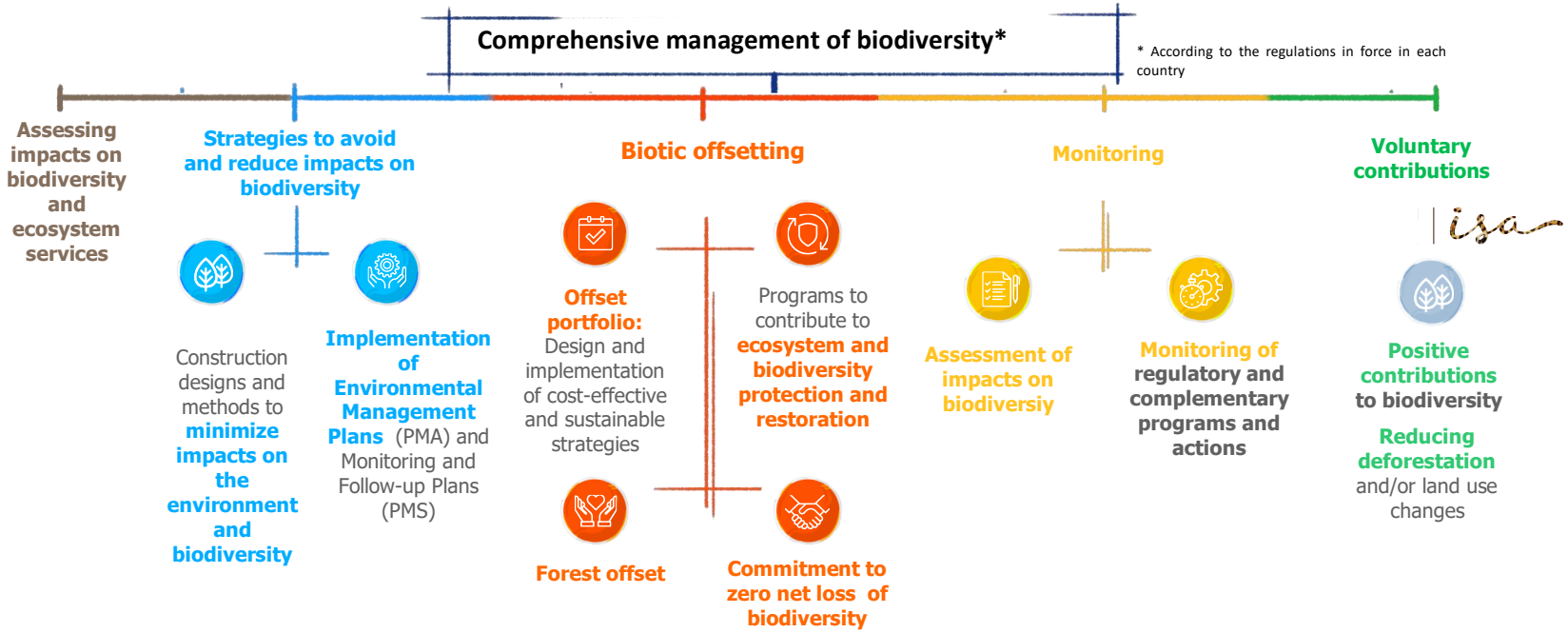
3.1 Mitigation hierarchy application

ISA and its companies are committed to applying the mitigation hierarchy in order to minimize negative impacts on nature and its biodiversity through processes that seek to avoid, minimize, offset, and positively transform the impacts generated on natural ecosystems and biodiversity.



Graph 2- Mitigation hierarchy

To manage impacts on biodiversity, ISA and its companies have defined the following goals, actions, and programs:


Comprehensive management of biodiversity*
* According to the regulations in force in each country
Assessing impacts on biodiversity and ecosystem services
Strategies to avoid and reduce impacts on biodiversity
Construction designs and methods to minimize impacts on the environment and biodiversity
Implementation of Environmental Management Plans (PMA) and Monitoring and Follow-up Plans (PMS)
Biotic offsetting
Offset portfolio: Design and implementation of cost-effective and sustainable strategies
Forest offset
Programs to contribute to ecosystem and biodiversity protection and restoration
Commitment to zero net loss of biodiversity
Monitoring
Assessment of impacts on biodiversiy
Monitoring of regulatory and complementary programs and actions
Voluntary contributions
Positive contributions to biodiversity
Reducing deforestation and/or land use changes


Mitigation hierarchy
Avoiding
Reducing
Restoring
Offsetting
Net Gain
Zero Net Loss

3.2 Mitigation measures using the mitigation hierarchy

3.2.1 Actions to avoid and reduce impacts

- **Restriction analysis**: At the project planning stage, areas with biodiversity restrictions that are included in the ARPEX are identified.

  The ARPEX helps select and prioritize bids in the group's business portfolio through an environmental, social, and land analysis of future projects, using GIS technology to generate mitigation actions. This tool is designed for all projects in the expansion plan in the countries where ISA is present.

  The ARA helps select a preliminary project path for the preparation of bids considering environmental, engineering, and property aspects. These processes help prioritize projects that minimize impacts on biodiversity.

- **Design alternatives**: for the construction of the projects, design alternatives are evaluated to avoid or minimize the impact on strategic ecosystems and areas of great value for biodiversity, classified according to the International Union for Conservation of Nature (IUCN) in categories I to IV. This is useful to analyze project route alternatives, **achieving a layout with the least possible impact** on biodiversity, considering the geographical, environmental, biotic, abiotic, and socioeconomic characteristics, the analysis of the effects and risks of the project, among other factors.

  National and regional databases of endangered species, such as the IUCN Red Books and the CITES species list, were consulted for the physical-biotic characterization of the project's area of influence.

  This provides us with the necessary elements to select the alternative that optimizes and rationalizes the use of natural resources and avoids or minimizes the potential risks, effects and negative impacts. This practice is carried out at ISA INTERCOLOMBIA, ISA TRANSELCA, ISA ENERGÍA Brasil, and ISA REP.

- **Design of variable forest exploitation strips**: the areas where individual trees will be impacted are defined through variable strip modeling. These strips are delimited by the possible interferences between the driver and the projected height of the trees, reducing the area to be impacted by forest harvesting (reduction by deforestation). This analysis is fundamental when protected areas, areas with conservation initiatives, Important Bird Areas (IBAs), or ecosystems with ecological importance must be impacted. This analysis is applied at all stages of the projects, as part of the commitment to reduce deforestation in the construction phase and contribute to the creation of sustainable value. This practice is carried out at ISA INTERCOLOMBIA.

- **Structure height assessment (towers):** during the formulation of the projects, we evaluate the relevance and timeliness to use higher structures (towers) to mitigate the biotic impact and minimize impacts on the flora and fauna, especially in ecosystems of high value for the protection of biodiversity and in areas restricted by environmental authorities. The reduction of impacts is achieved by increasing the distance of the towers from the ground, allowing the coexistence of the infrastructure and existing vegetation. This practice is carried out at ISA INTERCOLOMBIA, ISA ENERGIA CHILE, ISA TRANSELCA, and ISA ENERGÍA Brasil.

- **Alternative construction methods:** to reduce or avoid damages and impacts on vegetation cover and sensitive ecosystems and reduce pruning and felling of tree species along the easement, alternative construction methods are implemented, such as power wire laying by drone or helicopter and the use of gantries, minimizing ecosystem fragmentation and loss of habitat for wildlife. This practice is carried out at ISA INTERCOLOMBIA, ISA ENERGIA CHILE, and ISA ENERGIA Brasil.

- **Forest exploitation planning and maintenance of easement strips:** In the operation and maintenance of strategic areas of importance for biodiversity and considering the characteristics of the species, ecosystems, and topographic conditions, technical pruning is prioritized and, when this is not possible, the last measure is the harvesting of trees. ISA INTERCOLOMBIA, ISA TRANSELCA, ISA BOLIVIA, ISA ENERGIA CHILE, ISA ENERGÍA Brasil

- **Sustainable easements:** Promote and provide support for communities to use easement strips for ornamentation and landscaping, develop community vegetable gardens, and engage in social participation. ISA INTERCOLOMBIA.

- **Environmental Management Plans** During construction and operation of the projects, measures are implemented to avoid, mitigate, and reduce impacts on fauna, flora, connectivity, and ecosystems of great value for biodiversity conservation. Some of these measures include:

    - Wildlife rescue and repelling
    - Rescue and relocation of endemic or endangered species and germplasm rescue
    - Follow-up and monitoring of the rescue, transfer, and relocation of vascular epiphytes
    - Installation of flight diverters
    - Implementation of wildlife crossings

The effectiveness of some of these measures is monitored periodically in the projects with actions such as:

- Periodic monitoring at permanent fauna and flora stations (plots) in the easement strip.
- Monitoring of the effectiveness of flight diverters once the operational stage of the project begins.

- Semiannual wildlife monitoring

The implementation of environmental management plans is carried out by ISA INTERCOLOMBIA, ISA REP, ISA ENERGIA CHILE, and ISA ENERGÍA Brasil.

- **Implementation of bird anti-collision measures:** Installation and monitoring of anti-collision devices for avifauna. Structures installed by ISA INTERCOLOMBIA and ISA ENERGIA CHILE**.**

- **Environmental Guideline Adaptation Plan (PAGA):** for the operation and maintenance of road infrastructure projects, Ruta Costera, actions are implemented to avoid, mitigate, and reduce the impact on fauna, flora, connectivity, and ecosystems of great value for the conservation of biodiversity during the construction and operation stages. It includes, among others:
  - Establishment of wildlife rescue and repelling measures; construction, monitoring, and adaptation of wildlife crossings; and installation of signs warning about the presence of wildlife.
  - Awareness-raising workshops with related personnel and communities, recording and analysis of wildlife roadkill, and specific wildlife studies, such as the blue crab, and roadside campaigns.

3.2.2 Actions to restore and regenerate impacts

- **Environmental Management Plans**: During the construction and operation of the projects, measures are implemented to restore the impacts that could not be avoided on fauna, flora, connectivity, and ecosystems of great value for biodiversity conservation. Some of the measures include:
  - Ecological rehabilitation as a measure to mitigate impacts on non-vascular epiphytes (lichens, fungi, among others).
  - Develop a program for erosion prevention and control, soil protection, wetland protection, protection of water bodies and watercourses, and forest fire prevention and control.
  - Conduct environmental education programs.

  Measures implemented by ISA INTERCOLOMBIA, ISA REP, ISA ENERGIA CHILE, and ISA ENERGIA Brasil.

- **Landscape restoration**: Restore the landscape by means of revegetation techniques such as hydroseeding or broadcast seeding and planting trees in flat areas, including maintenance. Activity carried out by RUTA COSTERA and ISA VÍAS CHILE.

- **Slope revegetation:** Embankment cutting and construction of hydraulic works, ditches, and crest ditches to prevent erosion and keep the impacted areas stable. Activity carried out by RUTA COSTERA

3.2.3 Actions to offset impacts

Applying the mitigation hierarchy in the construction and operation of projects, negative impacts or effects that cannot be avoided, corrected, mitigated, or substituted and that lead to loss of vegetation cover and/or loss of biodiversity in natural terrestrial ecosystems and secondary vegetation are offset through different biotic offsetting strategies.

- **Biotic offsetting**:
  - Commitment to Zero Net Loss of Biodiversity
  - Offset portfolio: Formulation and implementation of cost-effective and sustainable strategies ensuring their permanence over time, and linked to communities and regions.
  - Ensure no net loss of biodiversity and comply with national and regional conservation goals. Activity carried out by ISA INTERCOLOMBIA
- **Programs to contribute to ecosystem and biodiversity protection and restoration**
  - Implementation of ecosystem restoration strategies, tree planting, and rehabilitation of water bodies.
  - Purchase of land in protected areas to submit protected area statements to the environmental authority, thus allowing the recovery of ecosystems similar to those impacted, ecological connectivity, and ecosystem services. Activity carried out by RUTA COSTERA
- **Forest offset:** Offsetting impacts that could not be avoided or reduced through reforestation and revegetation. Activity carried out by ISA INTERCOLOMBIA, ISA TRANSELCA, and ISA ENERGÍA Brasil

3.2.4 Actions to monitor and evaluate actions implemented

- **Environmental Monitoring Plans (PMS):** to evaluate the actions implemented, ISA and its companies have plans to monitor and evaluate the progress and success of the measures. These plans include:
  - Monitor the rescue, transfer, and relocation of vascular epiphytes (orchids and bromeliads). Non-vascular epiphyte offset.
  - Rescue, reposition, transfer, and relocate individuals of endemic, threatened, banned, or ecologically, economically, and culturally relevant tree species.
  - Manage vegetation during construction and operation.
  - Install bird flight diverters.
  - Manage wildlife, landscaping, and ornamentation.

  Activity carried out by ISA INTERCOLOMBIA, ISA ENERGÍA CHILE, ISA REP ISA ENERGÍA Brasil, and ISA TRANSELCA.
- **Wildlife crossing monitoring**: Recording of wildlife roadkill to identify the locations with the highest rate of incidents and take corrective actions. Activity carried out by RUTA COSTERA

3.2.5 Actions to transform positively

- **Conexión Jaguar Program:** ISA and its Companies voluntarily seek to generate positive contributions to biodiversity through the Conexión Jaguar Program, developed to contribute to biodiversity conservation, climate change mitigation, the development of rural communities, and the connectivity of the natural habitats of the jaguar (*Panthera onca*) in Latin America.

  As there is no presence of jaguars in Chile, we work in the conservation of the puma (*Puma concolor*), the second largest feline in America. Both the puma and the jaguar are umbrella species, who are an important part of the ecosystem balance: they protect biodiversity, water, and forests, guaranteeing the survival of the species that coexist with them and their associated habitats (see chapter Conexión Jaguar Program.)

The Program seeks to contribute to the fulfillment of the global goals of the 2030 agenda, such as the Paris Agreement, the Biodiversity Convention and the Sustainable Development Goals (SDGs) - specifically Goals 13, 15 and 17: Climate Action, Terrestrial Ecosystem Life, and Alliances to achieve the goals.

4 PROGRESS ON GOALS AND COMMITMENTS

4.1 Commitment to offset biotic impacts

- **No net loss of biodiversity:**

  Target: 15,581 hectares by 2044

  During the period, 2,887 hectares of mangrove ecosystems, tropical dry forest, tropical forest, woodlands/scrubland, flowering desert (ephemeral grassland), Belloto del Norte preservation forest, Lúcumo preservation forest, Guayacán preservation forest, and Algarrobo preservation forest were protected and are in the restoration process. These offsets correspond to obligations arising from procedures related to the use of isolated trees, the imposition of management measures for close seasons, and the removal of reserves, among others (see Table 3).

Table 3. Biotic offsets, No Net Loss of Biodiversity, and other offsets

Company	Target in hectares (TOTAL)	Progress in hectares (TOTAL)	Year of end of obligation
ISA ENERGÍA in Brazil	874	319	2044 (Perpetual)
ISA INTERCOLOMBIA	13387	1847	2042
ISA ENERGÍA Chile	343	343	2032

ISA VÍAS Chile	11	11	End of concession
Ruta Costera	965.5	366	2030
Total	15581	2887	

4.2 Commitment to reduce deforestation and the impact on vegetation cover

- Goal by project: reduce the impact on vegetation cover during project construction.

  Progress:

  - The Noroccidental Interconnection Project (SITU) achieved a 34% reduction in the area to be impacted compared to the approved in the environmental license (See Table).
  - Sabanalarga – Bolivar Interconnection Project (SABO) achieved a 17% reduction in the area impacted with approvals of the environmental license.
  - - Costa Caribe 500 kV Interconnection Project - CECO: A 54% reduction in the area to be impacted was achieved compared to the area approved in the environmental license.

Table 4. Progress in the reduction of the impact on vegetation cover.

Project	Baseline ha*	Number of hectares requested in the environmental impact study to interfere with in the construction of the project**	Number of hectares actually impacted in the construction and operational stage	Reduction in the impact on vegetation cover (% obtained)
SITU - AMA	353.56	246.34	149.54	39%
SITU - ANCE	796.87	344.23	214.43	38%
SITU - ANPO	364.18	144.48	86.92	40%
SITU - POSO	758.91	477.43	334.44	30%
SABO	920	285.4	236.48	17%
CECO	1,323.4	1,002.54	460.78	54%
COCU	1,141.5	806.24	NO PES*	
CUWI	98.4	34.13	NO PES*	
SOLA	1,319.06	491.45	NO PES*	
CARR	18.94	6.46	NO PES*	

*NO PES: Projects that are still in the licensing or construction stage and have not yet been entered into service; therefore, actual exploitation data is not yet available.

It should be noted that the baseline corresponds to the area of vegetation (natural and semi-natural ecosystems and wooded pastures) present in the easement strip, which would be impacted if the project had implemented conventional clearing and construction methods, where all of the vegetation present in this area would be impacted.

In the second column of Table 4, the area for which a forest harvesting permit was requested to the Environmental Authority in the environmental impact study corresponds to the vegetation we must interfere with after analyzing the growth projection, line technical conditions, environmental restrictions, among others, because it exceeds the safety distance required for the operation of the project or is located in areas necessary for the construction of the project.

The third column of the table contains the area actually used during the construction process.

Lastly, the actual reduction percentage is obtained by comparing the area actually impacted during the construction process with the area requested and granted in the project's environmental license.

4.3 Commitment to the major challenges of global interest in climate change and biodiversity

- **Contribute to Target 15 of the Global Biodiversity Framework:**: Currently, ISA is working on a voluntary basis to report to the Taskforce on Nature-related Financial Disclosures (TNFD). The TNFD is a global financial market-led initiative whose mission is to develop and provide a framework for reporting, managing, and disclosing the risks and opportunities associated with nature, with the ultimate goal of supporting the shift in global financial flows in favor of positive outcomes for nature.

  Additionally, ISA adhered to the COP15 Business Statement on the mandatory assessment and disclosure of risks and opportunities associated with nature, promoted by Business for Nature (BfN).

- **ANDI's Biodiversity + Business Roadmap**: ISA and ISA INTERCOLOMBIA are part of the group of companies committed to promote the integration and effective management of biodiversity in the business model in order to contribute to the fulfillment of the goals of the Kunming-Montreal Global Biodiversity Framework.

4.4 Commitment to stakeholders

4.4.1 Commitment to socialization and dissemination among key stakeholders in the territory

Socialization with the different communities and stakeholders in the territory during the development of the environmental studies and the construction and operational stage of the projects within the framework of the Community Participation and Information Programs -

PIPC. In these spaces we disclose the project, the results of the biotic characterization of the area of influence, the environmental impacts identified, and the management measures to be implemented.

This same information and participation program is implemented during the formulation and implementation of biotic offsetting plans.

4.4.2 Commitment to join efforts to conserve biodiversity and natural resources

ISA and its companies are committed to join efforts with other entities to maximize the results of the different actions for the conservation of biodiversity and natural resources. Our current alliances are the following:

Table 5. Alliances to contribute to the protection of biodiversity

Company	Alliance	Entities involved	Objective	Main achievements
ISA INTERCOLOMBIA	Agreement with national natural parks	National natural parks and ISA INTERCOLOMBIA	Articulate joint actions and strategies that contribute to the conservation and protection of protected areas in the national natural park system, according to ISA's and Intercolombia's environmental offsetting obligations.	Within the framework of the 2023 work plan for the agreement, several actions were carried out: *Start of implementation of the biotic offsetting plan for the Noroccidental Interconnection project: Antioquia-Cerromatoso in PNN (National Natural Park) Paramillo. Several working roundtables were held to establish the action plan for the property securing stage, with the participation of several stakeholders in the territory *Sponsorship of events: Agroexpo *Implementation of the program to develop local suppliers and inclusive businesses in the buffer zones of the protected areas (Los Flamencos Flora and Fauna Sanctuary and Los Colorados Flora and Fauna Sanctuary) established as areas of interest for compliance with environmental obligations. *Accompaniment in the execution of the actions carried out within the framework of the implementation of the offsetting plan for the Bolivar - Copey - Ocaña - Primavera 500 kV Single Circuit Transmission Line project in the SFF (flora and fauna sanctuary) Los Colorados.
ISA INTERCOLOMBIA	Agreement with the Mayor's Office of San Juan Nepomuceno for offsetting in the SFF Los Colorados	Mayor's Office of San Juan Nepomuceno and ISA INTERCOLOMBIA	Join efforts between the municipality of San Juan Nepomuceno and INTERCOLOMBIA on behalf of INTERCONEXIÓN ELÉCTRICA S.A E.S.P ISA, to execute the "Forestry Offset Plan for the Bolívar - Copey - Ocaña - Primavera 500 kV Single Circuit Transmission Line Project and associated works, through the ecological rehabilitation of impacted areas in the Los Colorados Flora and Fauna Sanctuary.	There are final designs for the houses that will be built to relocate the families that are currently inside the protected area. CARDIQUE's approval of the designs of the wastewater treatment system for the houses Sanitation of the land where construction will take place.

Company	Alliance	Entities involved	Objective	Main achievements
ISA INTERCOLOMBIA	Agreement with Fundación Biodiversa Colombia	Fundación Biodiversa Colombia and ISA INTERCOLOMBIA	Join efforts and technical, administrative, and financial resources for the implementation of preservation and restoration actions in the "Predio Peñón del Caballo" of Fundación Biodiversa Colombia seeking to strengthen communication, promotion, and education on biodiversity conservation, sustainable development, and social and cultural transformation in the DRMI Ciénaga de Barbacoas. Likewise, contribute to the protection of the habitat of the Jaguar (Panthera onca) as a fundamental contribution to the purpose of ISA's Conexión Jaguar Corporate Program.	On October 30, 2023, Agreement No. 4610000240 was signed between ISA INTERCOLOMBIA and Fundación Biodiversa Colombia for the implementation, maintenance and monitoring of the biotic offsetting actions of the POSO project in 353.6 hectares of the alternative called "Predio Peñón del Caballo" of Fundación Biodiversa Colombia in the DRMI Ciénaga de Barbacoas.
ISA INTERCOLOMBIA	Voluntary conservation agreement with Corporación Autónoma Regional del Atlántico (Regional Autonomous Corporation of the Atlantic)	Corporación Autónoma Regional del Atlántico and ISA INTERCOLOMBIA	Join efforts to protect, conserve, and restore the strategic areas and ecosystems of the LOTE and LAS PALMITAS- MIRADOR (Atlántico) properties and thus contribute to the environmental development of the region.	Property securing of the lots where the ANLA-approved biotic offsetting plan is to be implemented and signing of the conservation agreement
ISA INTERCOLOMBIA	Voluntary agreement for the conservation of the Varguitas property, Municipality of Paipa	Mayor's Office of Paipa and ISA INTERCOLOMBIA	Join efforts to protect, conserve, and restore the strategic areas and ecosystems of the VARGUITAS property (Paipa, Boyacá) and thus contribute to the environmental development of the region. Comply with the obligation established in: ANLA Resolution 0717 of April 6, 2022	Property securing of the lots where the biotic offsetting plan approved by ANLA is to be implemented, signing of the conservation agreement, and beginning of the conservation and restoration actions included in the plan.

Company	Alliance	Entities involved	Objective	Main achievements
ISA ENERGIA CHILE	Urban afforestation	Conexión Puma Colocolo Fundación Basura Fundación Reforestemos	Plant 200 native trees around the Colocolo stadium, Metropolitan Region	Plant 100 trees Include stakeholders, managers, and society in the process
ISA ENERGIA CHILE	Production of plant species with conservation problems	INIA La Cruz Vivero Comunitario de Freirina Vivero Intihuasi	Have plant species to mitigate and offset damage on individuals as a result of the impact of construction.	Production of more than 120,000 individuals
ISA ENERGIA CHILE	Replanting of plant species	Tripan	Have plant species to mitigate and offset damage on individuals as a result of the impact of construction	Replanting of more than 79,000 individuals
ISA VIAS CHILE	Conexión Puma	Buin Zoo	Biodiversity Protection	Consider presence in Torres del Paine, Isla Riesco, Chiloé, Nevados de Chillan. It consists of conducting studies on the presence, health, and perception of the people of the area on emblematic animals to then ensure their protection and care. Among them are the Huemul, Chilote fox, Culpeo fox, and Puma.
ISA VIAS CHILE	Conexión Puma	Fundación Basura, Colo, Reforestemos	Materializing the Conexión Puma project, carbon neutrality for Colo by 2025	Waste management in games, commitment to achieve carbon neutrality by 2025
REP	Interinstitutional Cooperation Framework Agreement between the National Forestry and Wildlife Service and REP	SERFOR	Join efforts to promote and execute actions for mutual capacity building, scientific research, field work and logistics support, project development, and actions for sustainable management of forest and wildlife resources.	Research on the characterization of "algarrobo" plus trees of the *Prosopis* genus in localities of the department of Tumbes and the Piura region.

Company	Alliance	Entities involved	Objective	Main achievements
RUTA COSTERA	FRAMEWORK AGREEMENT BETWEEN ESTABLECIMIENTO PÚBLICO AMBIENTAL EPA CARTAGENA AND CONCESIÓN COSTERA CARTAGENA BARRANQUILLA S.A.S.	ESTABLECIMIENTO PÚBLICO AMBIENTAL EPA CARTAGENA AND CONCESIÓN COSTERA CARTAGENA BARRANQUILLA S.A.S.	Join forces to carry out joint actions on issues of mutual interest in the areas of research, conservation, and preservation of biodiversity. Promotion and dissemination of environmental education in the District of Cartagena de Indias in accordance with national, international, and regional priorities.	Collaborate in educational campaigns in the area of influence of the Project of Ruta Costera, such as environmental days, recreational-pedagogical campaigns, among others.
SIER	Hass Carbon	Forestry Consulting Group	Generation of carbon credits in sustainable crops that do not contribute to the deforestation of ecosystems	2,100 hectares
SIER	Sustainable Palm Colombia	Energy Handmade	Generation of carbon credits in sustainable crops that do not contribute to the deforestation of ecosystems	4,100 hectares
SIER	Sustainable Palm Guatemala	Energy Handmade	Generation of carbon credits in sustainable crops that do not contribute to the deforestation of ecosystems.	3,500 hectares

4.5 Compliance with current regulations and linking suppliers

The Environmental Policy of ISA and its companies approved in ISA Board of Directors No. 894 of May 24, 2023 states that **"***We extend these statements and other environmental obligations in a binding manner and promote compliance with them among suppliers, contractors, subcontractors, and other business partners throughout the entire asset life cycle. We seek a due diligence process for contractors and alliances, extending our policy to ensure the best environmental practices through actions such as: o Pollution prevention and proper waste management. o Energy management and Greenhouse Gas emissions. o Efficient resource management. o Protection of natural ecosystems and biodiversity;"* therefore, our commitment to comply with current environmental regulations extends to our value chain.

4.5.1 National and International Regulatory Framework

4.5.1.1 Kunming-Montreal Global Biodiversity Framework[4]

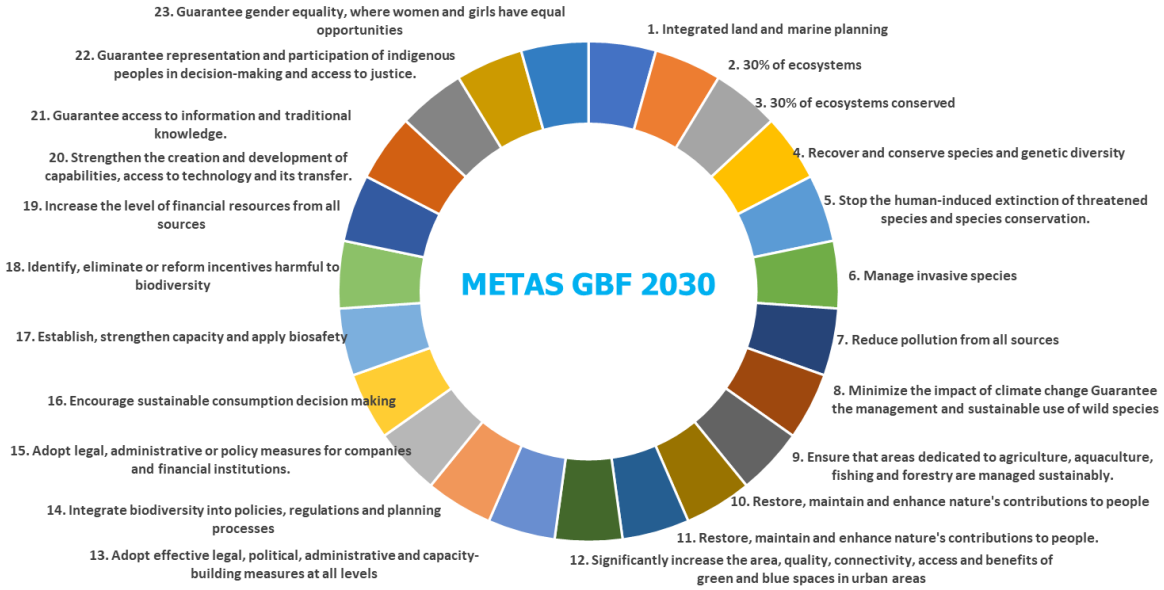
The Framework was approved on December 18, 2022 in Montreal, Canada, where a vision for 2050 and a mission for 2030 were set out.

The vision of the Framework is that of a world in which people live in harmony with nature where: "*By 2050, biodiversity is valued, conserved, restored, and wisely used, maintaining ecosystem services, sustaining a healthy planet, and providing essential benefits for all people.*" Four objectives were established for the vision:

- **Objectives A:** Restore the integrity, connectivity, and resilience of ecosystems and biodiversity; stop the extinction of species, and maintain genetic diversity.
- **Objectives B:** Biodiversity is used and managed sustainably and nature's contributions to people are valued, maintained, and enhanced by restoring ecosystem functions and services.
- **Objectives C:** Monetary and non-monetary benefits from the exploitation of genetic resources are shared in a fair, equitable manner**.**
- **Objectives D:** Financial and technical means of implementation - capacity building, scientific and technical cooperation, and access to and transfer of technology - to implement the Global Biodiversity Framework.

The mission of the Framework for the period up to 2030, towards the vision for 2050, consists of: "*Taking urgent action to halt and reverse biodiversity loss to set nature on the path to recovery for the benefit of people and the planet, conserving and using biodiversity sustainably, and ensuring the fair, equitable sharing of benefits arising from genetic resources, while providing the necessary means for implementation."* For the 2030 mission, 23 goals were established:

[4] chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.cbd.int/doc/c/2c37/244c/133052cdb1ff4d5556ffac94/cop-15-l-25-es.pdf



4.5.2 National Regulatory Framework

We comply with and respect the legislation established in each country where we are present, as well as all voluntary agreements, treaties, and commitments acquired by ISA and its companies.

4.5.2.1 Regulatory Framework in Colombia

4.5.2.1.1 Resolution 0256 of 2018:

Resolution 0256 of 2018 approves the update of the biotic offsetting manual, allowing us to design measures to manage the negative impacts of projects. The purpose of the offsetting manual is to guide the offsetting of impacts, as required by law, for the execution of projects, works, or activities within the framework of environmental licenses, requests for permits or authorizations for single forest harvesting of natural forest, and requests for temporary and definitive removal of national or regional forest reserves due to changes in land use.

This establishes the procedure and mechanisms to obtain "zero net loss" or "net improvement."

4.5.2.2 Regulatory Framework in Peru

Article 6 of the General Environmental Law (Law 28611) states that the main objective of environmental management is to monitor and prevent environmental damage.

According to the Environmental Offsetting Guidelines (R. M. No. 398-2014-MINAM), environmental offsetting is defined as measures and actions that bring environmental benefits proportional to the environmental damages caused by projects, provided that effective prevention, correction, mitigation, recovery, and restoration measures cannot be taken.

4.5.2.3 Regulatory Framework in Brazil

4.5.2.3.1 Federal Decree 4340/2002

Federal Decree 4340/2002 establishes that regarding environmental offsets (as defined in Law 9,985/2000), the environmental authority shall establish the degree of impact according to the environmental impact study (EIA) carried out in the environmental licensing process.

Negative and non-mitigable impacts and potential risks that could compromise the quality of life in a region or cause damage to natural resources are considered.

Law 12,651 of 201 regulates the protection of native flora and establishes that natural or legal persons who use forest raw materials obtained from the removal of native vegetation or who are authorized to remove native vegetation are obliged to reforest.

4.5.2.3.2 Law 6,938/81

The legal basis for environmental licensing is based on Law 6,938/81, which sets forth the National Environmental Policy and establishes a set of rules for environmental preservation.

4.5.2.4 Regulatory Framework in Chile

According to Supreme Decree 40 of 2012 (MMA), and the "Guide for Biodiversity Offsetting in the SEIA (Environmental Impact Assessment System) of 2014" (MMA-SEA), offsetting measures are the basis of the mitigation hierarchy and can only be applied when it is not possible to mitigate or remediate a significant impact.

Biodiversity offsetting requires the implementation of measurable actions that offset the residual impacts of projects on biodiversity (after implementing mitigation and remediation measures), focused on producing a positive and equivalent alternative effect for no net loss or a net gain of biodiversity.

4.5.2.5 Regulatory Framework in Bolivia

Article 1 of the General Environmental Law (Law 1333) establishes the objective of protecting and conserving the environment and natural resources by regulating human actions that involve nature and by promoting sustainable development, thus improving the quality of life of the population.

4.5.3 HSE Manual

All activities executed within the framework of a contract must be carried out based on the legislation in force, contractual documents, policies, and guidelines to avoid deviations and non-compliance in the areas of safety, occupational health, and environmental management that may arise. For this reason, ISA and its companies have the HSE Manual, which is part of the contractual documents, so all the considerations set forth in this document are mandatory.

This Manual does not limit the Contractor's responsibilities. Although it guides the Contractor on some specific issues, they are not the only ones that must be fulfilled. These requirements are complementary to the environmental management plans, current legislation, technical specifications, and other standardized documents on safety,

occupational health, and environmental management that must be applied; in turn, the Contractor must ensure that all the requirements defined in the manuals are applied by its own Contractors.

Paragraph 6 of the Manual establishes the environmental management requirements, which include those associated with the biotic component. In general terms, it is indicated that: "*Contractors must ensure in the execution of their activities the efficient use of natural resources, carry out actions that seek to minimize the carbon footprint, and contribute to the protection of biodiversity. The contractor shall carry out training and sensitization processes for its workers on environmental care*."

HSE Manual ISA and ISA INTERCOMBIA (Microsoft Word - Manual_HSE_Contratista versi\363n 7.docx) (isaintercolombia.com).

Ruta COSTERA Suppliers - Ruta Costera

4.5.4 Code of Conduct for suppliers of ISA and its companies:

ISA and its companies manage their supply chain based on ethical, human rights, labor, environmental, and anti-corruption criteria in all its operations; its purpose is to create a link between suppliers and the supply chain, thus strengthening the concept of an extended company and strengthening the business ecosystem.

The Code applies to ISA and its affiliates and defines the minimum non-negotiable criteria that all suppliers with whom ISA and its companies have contractual relationships must adhere to. Knowledge of this Code is a prerequisite for contracting, and by accepting the contractual conditions, the supplier undertakes to follow and comply with the following provisions relating to the "Environment":

ISA and its companies are committed to contributing to the conservation of the natural environment and managing their environmental impact. Therefore, it encourages suppliers to commit to:

- Implementing environmental management systems that contribute to continuous improvement and promoting the sustainable and eco-efficient use of natural resources.
- Reducing the carbon footprint, promoting mechanisms to decrease and offset greenhouse gas emissions.
- Protecting biodiversity, minimizing the impact on natural ecosystems, and contributing to their conservation.
- Reducing the consumption of natural resources.
- Developing initiatives that promote: The five Rs: Refuse, Reduce, Reuse, Recycle, and Repair.
- Developing campaigns for employees to promote, protect, and care for the environment.

- Adopting climate change adaptation and mitigation strategies with the respective measurement of greenhouse gases (GHG) and the corresponding reduction and offsetting actions.

Code of Conduct for suppliers of ISA and its companies. Codigo_Conducta_Proveedores.pdf

5 Operations in areas with high biodiversity value

All projects have environmental management and monitoring plans pursuant to each country's legislation. Some projects were built in areas declared protected after the construction of the project.

Company	Total number of substations and total area used for operational activities	Number of substations and area located in areas with high biodiversity value
ISA INTERCOLOMBIA	49 substations - 41,370 hectares	16 substations - 38.44 hectares
ISA TRANSELCA	12 substations - 5,032 hectares	0 substations - 0.0512 hectares
REP	87 substations - 40,142 hectares	0 substations - 0 hectares
CTEEP	133 substations - 61,109 hectares	21 substations - 7,739 hectares
INTERCHILE	6 substations - 5,421 hectares	1 substation - 141.46 hectares
ISA BOLIVIA	6 substations - 1774 hectares	0 substations - 0 hectares
Total	293 substations – 154.848 hectares	44 substations – 8.024,95 hectares

Company	Total number of substations and total area with studies	With management plans
ISA INTERCOLOMBIA	49 substations – 3.846 hectares	16 substations - 38.44 hectares
ISA TRANSELCA	12 substations - 5.046 hectares	0 substations - 0.0512 hectares
REP	87 substations – 174.17 hectares	0 substations - 0 hectares
CTEEP	133 substations - 67.388 hectares	21 substations - 7.739 hectares
INTERCHILE	3 substations - 8.377 hectares	3 substations - 66.39 hectares
ISA BOLIVIA	6 substations - 1.774 hectares	0 substations - 0 hectares
Total	293 substations - 126,573 hectares	44 substations – 8.024 hectares

Overall Assessment:

Compared to 2023, the 2024 results reflect adjustments derived from updating geospatial data and operational records. In Brazil, the reduction in the total right-of-way area and number of sites is due to a more precise delimitation of easement widths and the exclusion of affiliates. The update of the BDIT database confirmed 129 active projects and 421 circuits for a total of 21,289.74 km, which led to the recalculation of the operational footprint. In Colombia, the decrease in the number of circuits was due to database cleansing, eliminating duplicate records, while the increase in total area is related to the entry into operation of

new projects and the cartographic update of the STN. The expansion of the Sogamoso substation required license modifications and involved biodiversity impact assessments, with the implementation of management, monitoring, and follow-up measures during construction. In Chile, the increase in infrastructure reported in 2024 is due to the incorporation of both its own substations and extensions connected to third-party facilities.
Exposure and management plans:

Methodological updates included the integration of official georeferenced data and the most recent infrastructure databases (BDIT, STN, SIS), ensuring more accurate spatial representation. Areas adjacent to critical biodiversity (within a range of 0 to 2 km) were reassessed, and previously degraded or disturbed areas were reclassified. These improvements allowed for a more accurate assessment of biodiversity exposure and provided the basis for updating management plans for operational sites such as Minuano and Rioacha Grande.

5.1 CONEXIÓN JAGUAR PROGRAM – Actions to transform

Conexión Jaguar is a sustainability program developed by ISA and its companies to contribute to biodiversity conservation, climate change mitigation, the development of rural communities, and the connectivity of the natural habitats of the jaguar (*Panthera onca*) in Latin America.

As there is no presence of jaguars in Chile, we work in the conservation of the puma (*Puma concolor*), the second largest feline in America. Both the puma and the jaguar are umbrella species, which are an important part of the ecosystem balance: they protect biodiversity, water, and forests, guaranteeing the survival of the species that coexist with them and their associated habitats.

5.2 Program development

The Program provides technical and financial support so that the best forestry initiatives managed by rural communities issue and sell certified carbon credits under the highest international standards to finance conservation.

Conexión Jaguar currently supports two types of projects: Reducing Emissions from Deforestation and Degradation (REDD+) and rural afforestation, reforestation, and revegetation (ARR) initiatives.

To counterpart the financing of the carbon project, a smaller portion of the bonds generated will return to the Program by selling these bonds, and these resources will be invested to support new initiatives.

5.3 Why does ISA protect the jaguar?

To protect the jaguar is to protect biodiversity and the ecosystems it inhabits. The jaguar (*Panthera onca*) plays a fundamental ecological role in the balance and proper functioning of ecosystems. In the food chain, it is considered a superior species, which guarantees the survival of minor species. Its disappearance would alter biodiversity by increasing herbivore populations, reducing vegetation, and therefore, water sources. The Jaguar can only exist if the ecosystem is preserved.

The jaguar corridor covers the territory between Mexico and northern Argentina, areas where ISA and its companies in Latin America are present. Through Conexión Jaguar, we connect life and transcend the operation of our business, from connecting through infrastructure to the connectivity of biodiversity, by working with rural communities to contribute to the preservation of the environment while protecting the natural corridors that connect the populations of the jaguar, the "big cat of the Americas."

During the last 100 years, the jaguar's habitat and range of distribution in South America have been reduced to less than half. A recent study by Panthera shows that there are approximately 173,000 jaguars left on the continent, less than half of the species that have historically existed throughout its distribution range, which also means that other species that coexist with the Jaguar have been lost.

5.4 Targets to 2030

- Support for at least 20 rural initiatives in Latin America
- Effective protection of approximately 400,000 hectares across the Jaguar Corridor
- Reduction of 9 million tCO_2 (in the lifetime of the project)
- Promote the development of rural communities in the area of influence of the projects

The Program also seeks to contribute to the fulfillment of the global goals of the 2030 agenda, such as the Paris Agreement, the Biodiversity Convention, and the Sustainable Development Goals (SDGs) - specifically Goals 13, 15, and 17: Climate Action, Terrestrial Ecosystem Life, and Alliances to achieve the goals.

5.5 Progress

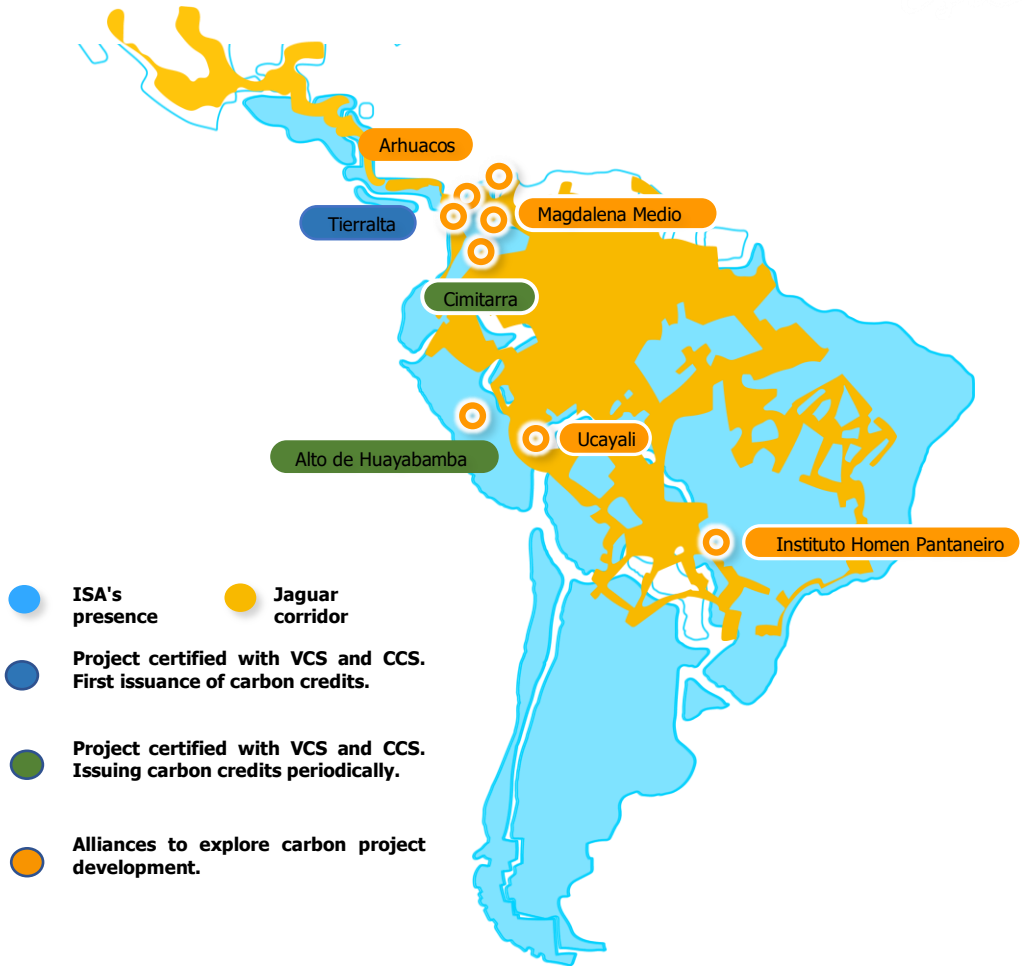
To date, 9 alliances have been formalized in Latin America to explore the development of projects, which contribute to:

- The conservation and/or restoration of more than 800,000 hectares of land
- A potential reduction of 6.4 million tCO_2e during the credit period of the projects[5], of which 564,530 tCO_2e have already been verified
- Improvement of soil and water conditions
- Support for some 320 families in Colombia, Peru, and Brazil with various activities

[5] The credit period of the projects varies according to the characteristics of each project

5.5.1 Projects supported

To date, the Conexión Jaguar Program has supported the following projects:



5.6 Cooperators and allies

To increase the actions and benefits of the Program, ISA and its Companies work hand in hand with entities that are committed to generating positive impacts in Latin America. Currently, the following alliances are in place:

Project leaders:

Fundación Biodiversa Colombia

Instituto Homem Pantaneiro (IHP)

Amazónicos por la Amazonía

Umau Cacao

Cooperators:

Technical allies:

6 Bibliography

WWF. (11 de septiembre de 2021). Obtenido de https://www.wwf.org.co/?328100/Glosario-ambiental-Que-es-la-biodiversidad

7 Annex: Key concepts

a. **Biodiversity**: Biodiversity indicates the variety of life on earth. This is achieved through natural processes such as natural selection, and analyzed in three specific areas: genes, species, and ecosystems. The latter gives the name to the different axes that currently measure biodiversity (WWF, 2021).

- Genetic diversity: understood as the total number of genetic characteristics within each species. These characteristics are what maintain the biochemical information that determines behavior and appearance.

- Species diversity: is the variety of species within a habitat or region, i.e., the types of animals and plants that exist in a territory.

- Ecosystem diversity: is the variety of possible relationships between species living in the same region, as well as their relationship with the surrounding habitat.

b. Dependencies: TNFD defines dependencies as the ecosystem services on which an organization or other players depends for the functioning of its business processes, such as a constant supply of clean water. Dependencies include the ability of ecosystems to regulate water flow and quality, or hazards such as fires and floods; provide suitable habitat for pollinators (which in turn provide a service directly to economies); and sequester carbon (terrestrial, marine, and freshwater).

c. Mitigation Hierarchy: The Biodiversity Consultancy (2015), defines the Mitigation Hierarchy as a logical framework for managing risks and potential impacts linked to biodiversity and ecosystem services. The mitigation hierarchy can be viewed as a set of prioritized and sequential actions that are applied to reduce the potential negative impacts of project activities on biodiversity and ecosystem services ().

d. Zero Net Deforestation (ZND): Balance between forest loss due to deforestation and gain due to reforestation/restoration processes or other criteria determined in the definition of natural forest adopted by Colombia (MADS, Ideam, 2019).

e. Impacts: Changes in the state of nature, which may result in changes in nature's ability to provide social and economic functions. Impacts can be positive or negative. They may result from the actions of an organization or another party and may be direct, indirect, or cumulative. (SBTN (2022) Working Definitions [unpublished], CDSB (2021) Framework Implementation Guide for Biodiversity-Related Disclosures).

f. Impact drivers: A measurable quantity of a natural resource that is used as a natural input to production (e.g., the volume of sand and gravel used in construction) or a measurable non-product output of a business activity (e.g., one kilogram of NOx emissions released into the atmosphere by a manufacturing facility) (Capital Coalition (2016) Natural Capital Protocol).

g. Opportunity: TNFD defines nature-related opportunities as activities that create positive outcomes for organizations and nature by avoiding or reducing the impact on nature or contributing to its restoration. Nature-related opportunities can happen: i) when organizations mitigate the risk of loss of natural capital and ecosystem services; and ii) through the strategic transformation of business models, products, services and investments that actively work to halt or reverse the loss of nature, including through the implementation of nature-based solutions (or their support through financing or insurance).

h. Dependence pathway: A dependence pathway shows how a particular business activity depends on the specific characteristics of the natural capital. Identifies how

observed or potential changes in natural capital affect the costs and/or benefits of doing business. (Capital Coalition (2016) Natural Capital Protocol).

i. **Impact pathway:** An impact pathway describes how, as a result of a specific business activity, a particular impact factor generates changes in natural capital and how these changes in natural capital affect different stakeholders. (Capital Coalition (2016) Natural Capital Protocol).