COMPREHENSIVE MANAGEMENT OF BIODIVERSITY

ISA AND ITS COMPANIES

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CONEXIONES QUE INSPIRAN



Manifesto

If we

understand that our planet is fragile and we must take care of it, there is connection

understand that our actions, however small, can have an impact, there is connection

discover that the change that we want for the world lies in each of us, **there is connection**

Knowing and protecting the resources and diversity of ecosystems in a large part of our country is a privilege that goes hand in hand with the nature of our daily work

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Key concepts



• Wide variety of existing plants, animals, and microorganisms

• Genetic differences within each species

• Variety of ecosystems (lakes, forests, deserts, agricultural fields, etc.) that host multiple interactions between their inhabitants and their environment



Direct or indirect benefits that humanity and living beings receive from nature and biodiversity, which are the result of the interaction between the different components, structures, and functions of ecosystems. 4 types of services:

- Cultural ecosystem services: spiritual enrichment, reflection, recreation, etc.
- Ecosystem sourcing services: goods and products obtained from ecosystems, such as food, fibers, wood, water, minerals, genetic resources, etc.
- **Regulatory ecosystem services:** benefits resulting from ecosystem processes: e.g. air quality, climate regulation, water regulation, erosion control, human disease control, pollination, etc.
- Support ecosystem services: services and processes necessary for the sourcing and existence of other services, e.g. soil formation, nutrient cycling, photosynthesis, etc.

Biodiversity loss

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Biodiversity loss refers to the decline or disappearance of biological diversity, the latter understood as the variety of living beings that inhabit the planet, as well as the natural patterns found in ecosystems.

Causes and consequences of biodiversity loss

Causes of Biodiversity Loss

- **Climate change**: impacting species distribution, population dynamics, community structure, and ecosystem function.
- **Pollution:** air, noise, and light pollution.
- **Destruction of habitats**: soil contamination and changes in soil use due to activities such as deforestation have a negative impact on ecosystems and their associated species.
- Invasive alien species: acting as predators, competing for food, interbreeding with native species, introducing parasites and diseases, etc.
- Overexploitation of the natural environment: consumption at a speed greater than natural regeneration, impacting flora and fauna.

Consequences of biodiversity loss

- Extinction of species: the alteration and destruction of habitats endangers thousands of species. More than one million species of endangered plants and animals.
- Threats to human beings: biodiversity loss endangers human well-being by compromising soil and water, which are essential for food production.
- **Proliferation of pests:** ecosystem imbalances can trigger the emergence of pests that damage, for example, crops.
- Increased CO₂ emissions: the ability of forests and oceans to absorb CO₂ decreases if their ecosystems are harmed.
- Non-compliance with SDG: the disappearance and damage of biodiversity and ecosystems will result in failure to achieve 80% of the targets of eight of the Sustainable Development Goals (ending poverty, zero hunger, health and well-being, clean water and sanitation, sustainable cities and communities, etc.).

Commitment to Biodiversity

• The construction and operation of infrastructure projects generate environmental impacts, consume resources, and release substances into the environment. To manage these impacts, ISA and its companies, through the Corporate Environmental Policy, are committed to creating mechanisms to protect natural resources and implement the mitigation hierarchy, seeking to avoid, minimize, and offset the impacts generated on natural ecosystems and contribute to the conservation of biodiversity.

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- At ISA we are aware of the existence of sensitive species and fragile ecosystems throughout the highly diverse territory of the countries in which we operate, and for this reason we are committed to the protection of biodiversity, and we recognize that our infrastructure has socio-environmental impacts.
- We engage with and contribute to the major challenges of global interest in the areas of climate change and biodiversity.
- We are committed to the recovery and conservation of ecosystems and biodiversity, which is why we proactively implement mechanisms to achieve a positive net impact on biodiversity and zero net deforestation.
- Despite the measures taken, some of our infrastructure is located in protected areas in categories I-IV according to the International Union for Conservation of Nature (IUCN). This infrastructure is so old that when it was installed there, these areas were not yet declared protected by the IUCN. For these locations, we take special measures to ensure minimal impact on biodiversity throughout the life cycle of the asset.
- Additionally, through the Conexión Jaguar Volunteer Program, ISA has made a commitment to the conservation of biodiversity and the connectivity of jaguar and puma natural habitats.

Laws

We comply with and respect the laws of each country where we operate, as well as all agreements, treaties, and voluntary commitments acquired by ISA and its companies. These regulations establish the procedure and mechanisms to achieve "zero net loss" or "net improvement." We also go further with biodiversity protection with our Conexión Jaguar volunteer program.

Colombia

Perú

Resolution 0256 of 2018 approves the update of the offset manual for the biotic component, allowing us to design measures to manage the negative impacts of projects.

Prevention of environmental impacts, minimization and correction of unavoidable impacts, and implementation of the necessary offsetting measures.

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 Offset 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.

Laws

Federal Decree 4340/2002 establishes that regarding environmental offsetting (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.

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 involving nature and promoting sustainable development, thus improving the quality of life of the population.

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 require the implementation of measurable actions that compensate for 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.



sset life cycle			cle	At ISA and its company relevant issue, which is					
	Envi Soci Prop	ironment, iety, and perty							
		Portfolio	Offer	Design	Construction	Operation And Maintenance	Dismantling		
EMPHASIS		 Incorporation of environmental, social, and property criteria for portfolio projects 	 Comprehensive assessment of environmental, social, and property activities and risks in CAPEX and OPEX Incorporation of environmental, social, and property impacts 	 Design of Environmental Impact Studies (EIA) Citizen participation and prior consultation for timely environmental licensing purposes 	 Execution of the Environmental Management Plan Providing information to communities, authorities, and other stakeholders 	 Application of environmental management systems to ensure the management of risks and environmental impacts 	 Application of the renewal and final sale of the asset to avoid environmental and social liabilities 		
		Social Management Plan							
		Socio-environmental risk workshop	Identification of environmental, social, and property risks	Updating and management of environmental, social, and property risks					
S	\setminus	Environmental licensing strategy							
CTIC		Analysis of Restrictions of the Expansion Plan (ARPEX)	Analysis of Environmental Constraints (ARA)	Execution of environmental, s components	ocial, and property		Renewal and final disposal strategy		
PRAG		Early social, environmental, an land intervention plans for strategic projects	Route selection Inter	rrelation of environmental man					
			Calculation of environmental, social, and property items for CAPEX and OPEX	Environmental and social studies for licensing Compliance with the environmental management plan					
	_		R	egulatory monitoring and leg	gal environmental manageme	nt			
	Environmental Management System – ISO 14001								

Comprehensive management of biodiversity*

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 Mitigation Hierarchy
 Avoiding
 Reducing
 Restoring
 Offsetting
 Net Gain

 * According to the regulations in force in each country

Assessing Impacts on Biodiversity and Ecosystem Services

Baseline

- Abiotic, biotic, and socioeconomic characterization
- Identifying ecosystem services for sourcing, regulations, support, and culture in the area of influence of the project.
- Calculating the number of users of each of the ecosystem services.
- Qualifying ecosystem services taking into account the following aspects:
 - Dependence of the communities on EESSs (Ecosystem Services)
 - Dependence of the project on EESSs
 - EESS trend
- Qualifying the impact of the project on ecosystem services

Some methodologies and biodiversity indicator systems

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- Ecoser: Protocolo colaborativo de evaluación y mapeo de servicios ecosistémicos y vulnerabilidad socioecológica para el ordenamiento territorial (Collaborative protocol for the assessment and mapping of ecosystem services and socioecological vulnerability for land use planning).
- Laterra, Barral, Carmona and Nahuelhual (2015).
- Weaving ecosystem services into impact assessment. Landsberg, et al. (2013).
- Methodologies for defining and assessing ecosystem, Haines-Young, and Potschin (2009).
- Ciencias de la sostenibilidad: guía docente (Sustainability science: professor's guide). Martín-López, González, and Vilardy (Coord.) (2012).
- Common International Classification of Ecosystem Services: http://cices.eu/.
- Biodiversity Indicators Partnership (BIP): https://www.bipindicators.net/.

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Assessing Impacts on Biodiversity and Ecosystem Services

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General Methodology

Definition of the unit of analysis: minimum unit of the biotic environment (cover, ecosystem, etc.) or of the socioeconomic environment (village, municipality, etc.)

Identification and general overview of ecosystem services: identifying and describing the EESSs provided by the ecosystems present in the area of influence.

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

Determining the status of EESSs by defining and using technical indicators

Identification of type and calculation of number of direct beneficiaries

Evaluation of the dependence of the communities on EESSs and classification of said dependence in categories (high, medium, or low)

Evaluation of the dependence of the communities on EESSs and classification of said dependence in categories (high, medium, or low)

Evaluation of EESS dynamics

* According to the regulations in force in each country

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Strategies to avoid and reduce impacts on biodiversity



Analysis of Restrictions on Expansion Plans (ARPEX) and Analysis of Environmental Restrictions (ARA)



Alternative Environmental Diagnosis (DAA)

Environmental Impact Assessment (EIA) and Environmental Management Plan (PMA) Areas with biodiversity restrictions included in the ARPEX are identified at the project planning stage.

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 expansion plan projects in countries where ISA is present.

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



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Strategies to avoid and reduce impacts on biodiversity



Analysis of Restrictions on Expansion Plans (ARPEX) and Analysis of Environmental Restrictions (ARA)



Alternative Environmental Diagnosis (DAA)

Environmental Impact Assessment (EIA) and Environmental Management Plan (PMA) The **DAA evaluates and compares the different development alternatives of the projects** presented by the company.

These alternatives consider the geographic, environmental, biotic, abiotic, and socioeconomic characteristics; the analysis of the effects and risks of the project; and possible solutions and control and mitigation measures for each of the alternatives.

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.



Strategies to avoid and reduce impacts on biodiversity



* According to the regulations in force in each country

Biotic offsetting



Our goal is to offset the negative impacts or effects that cannot be avoided, corrected, mitigated, or replaced and that result in the loss of biodiversity in natural terrestrial ecosystems and secondary vegetation; thus ensuring the effective conservation of an ecologically equivalent area where a permanent conservation strategy and/or ecological restoration can be created in such a way that when compared to the baseline, it is ensured that there is no net loss of biodiversity.



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Biotic offsetting

Strategy to generate a positive impact with guaranteed permanence over time, linked to communities and regions. These offsets take place near the date of giving the start order for the contract, in order to plan and structure a portfolio that will be part of the basic inputs for the specific plans of each project.



Biotic offsetting

INTERCOLOMBIA	ISA	TRANSELC	Α	REP		CTEEP	INTERCHILE
C	Offsetting ta	gets: area of	f offsets impl	emented, in mo	nitoring stage	e, and to be implem	nented
13,545.17 ha		2.1 ha		30 ha		64.03 ha	695.8 ha
	Implement	ted area of m	' andatory off	set that is in the	e maintenance	e and monitoring st	age
388.96 ha		- 1		-		64.03 ha	142 ha
CENEDAL							

Offsetting targets: 14,337.1 ha of offsets implemented, in monitoring stage, and to be implemented

594.99 ha of mandatory offsets implemented that are in the maintenance and monitoring stage, through different strategies such as planting, replanting, and conservation of strategic areas.

The year **2025** is the estimated deadline to implement the pending offsetting measures and their first monitoring.



Operational sites in areas of high biodiversity value

NTERCOLOMBIA	ISA TRANSELCA	REP	СТЕЕР	INTERCHILE	ISA BOLIVIA			
	Number of substations and their area, located in areas of high biodiversity value							
1,593 ha	0.0512 ha	140.35 ha	1,368 ha	141.46 ha	-			
					-			
2 substations		0 substations	1 substation	1 substation	-			
	Total number of	substations and total ar	rea used for operational	activities				
47,159 ha 49 substations	5,046 ha 12 substations	15,666 Ha 87 substations	76,439 ha 130 substations	5,697 ha 3 substations	2,073 ha 5 substations			

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.

Mitigation Hierarchy	Avoiding	Reducing	Restoring	Offsetting	Net Gain	
* According to the regulations in force in each country			Zero Net Loss			

Voluntary contributions

Net Positive Impact on biodiversity

It seeks to achieve net gains in natural capital. It involves the application of the mitigation hierarchy to prioritize impact management as well as rehabilitation over biodiversity offsets.



- Baseline area greater than the reference scenario
- Richness of flora and fauna species greater than the reference scenario

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Voluntary contributions Reducing deforestation and/or land use changes



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

- This forest optimization commitment is covered by the technical specifications of our projects. As a result, all our suppliers have adopted it as well.
- 10% of the optimization commitment involves our suppliers, because the optimization is in the contractual terms as approved by the environmental authority in the license.

Environmental studies, design, and engineering

Preparation of the Environmental Impact Study – Design of variable easement for forest use Obtaining the environmental license - Adjustment of use of strips according to exclusion zones or restrictions imposed by the ANLA

Construction and commissioning

Monitoring with environmental compliance reports Final report with forest exploitation during construction and commissioning

Net Gain

Mitigation Hierarchy

Avoiding

Reducing

Restoring

Offsetting

Zero Net Loss

* According to the regulations in force in each country

Voluntary contributions

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To contribute to Target 15 of the Global Biodiversity Framework, ISA is currently working voluntarily to report to the Taskforce on Nature-related Financial Disclosures (TNFD).

Taskforce on Nature-related Financial Disclosures

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).









CONEXIÓN JAGUAR

Reduction of greenhouse gas emissions that cause climate change.

Biodiversity conservation and ecological connectivity through jaguar corridors.

Improving the living conditions of rural communities in the areas of influence of forestry projects.

Raising awareness about environmental issues through education, art, and culture.



Jaguar

corridor

2021

828.032

2021

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7

mm

2021 TARGET

TARGET

20

9

mm