Biodiversity risk assessment

Steps in the Biodiversity Risk Assessment Process

For each project in each subsidiary, the guidelines stipulated in the portfolio and project management model established in the **portfolio and project management policy must be followed.**

1	**Project identification**	Project selection and prioritization Portfolio risk and opportunity management
2	**Structuring**	Define project potential through technical and financial feasibility studies and preliminary identification of project risks.
3	**Planning**	Identify and define project risks.
4	**Execution**	Execute activities in accordance with plans approved through Environmental Impact Assessments (EIA) and Environmental Impact Plans (EIP). Environmental Impact Assessment (EIA) and Environmental Management Plans and Management Plans and applying the LEAP methodology.
5	**Transfer and closing**	Perform the closing, ensuring that all administrative, technical, and financial obligations are met, as well as closing on the tools associated with the different fronts.

Portfolio and project management model

Location-specific approach

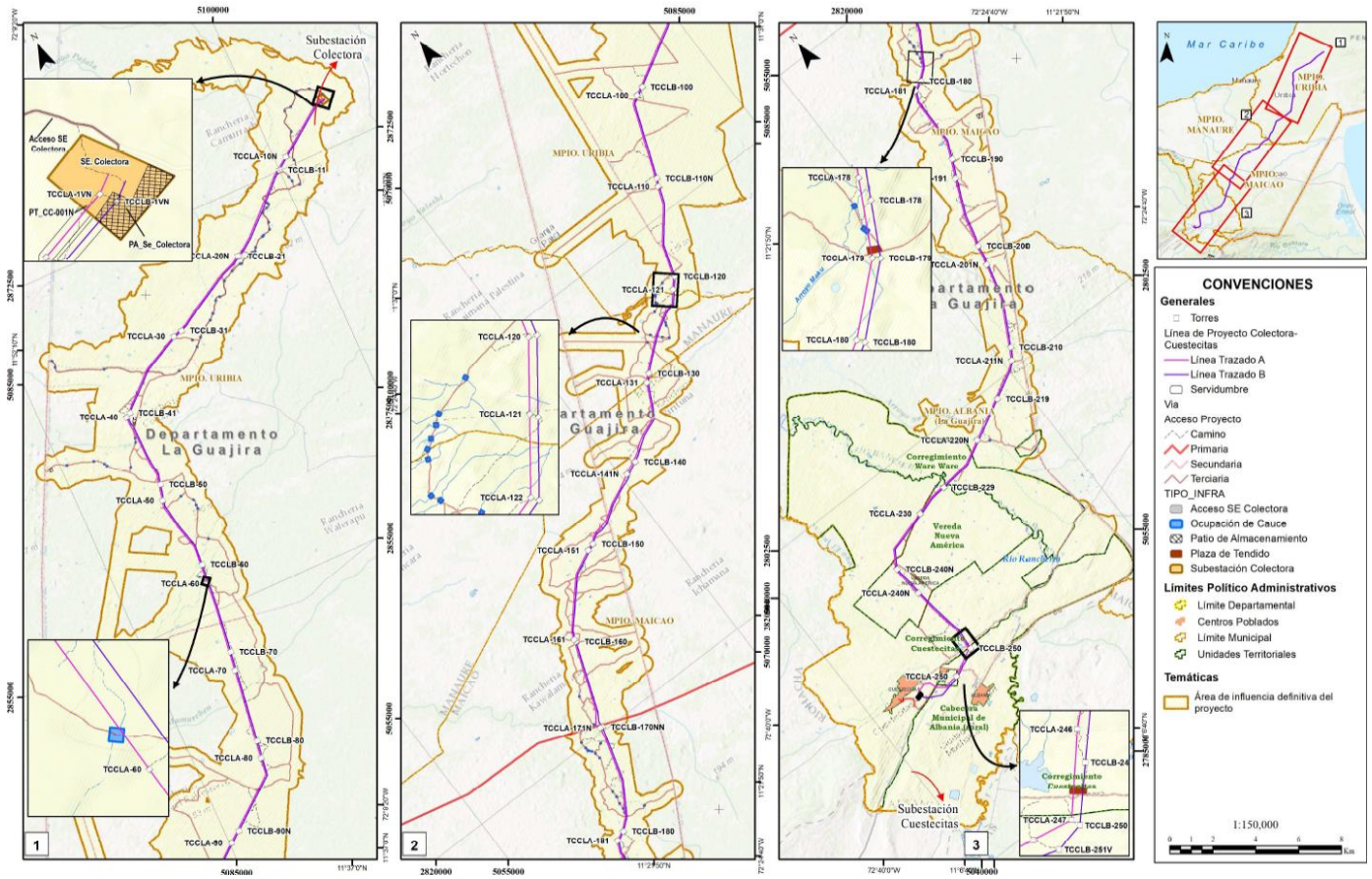
Each project assessment considers specific areas of influence and analyzes physical, biological and social components within its environmental impact assessment EIA.

Example (Project - 500 kV Colectora)

The area of influence corresponds to the overlapping and integration of the areas identified and validated in each of the criteria established for its definition (infrastructure and project activities, demand, use and exploitation of resources, significant impacts) based on the information from the environmental characterization and assessment.

Chapter 4 of the EIA on page 17 presents the methodology for characterizing the biotic component of the exploitation zone and the zone of influence. Page 221 shows the environmental and socioeconomic zoning that applies a location-specific approach.

Chapter 4 EIA Colectora :
https://www.enlaza.red/content/download/51294/719253?version=1



Grupo Energía Bogotá | EnGrupo esMejor

Methodological references for risk assessment

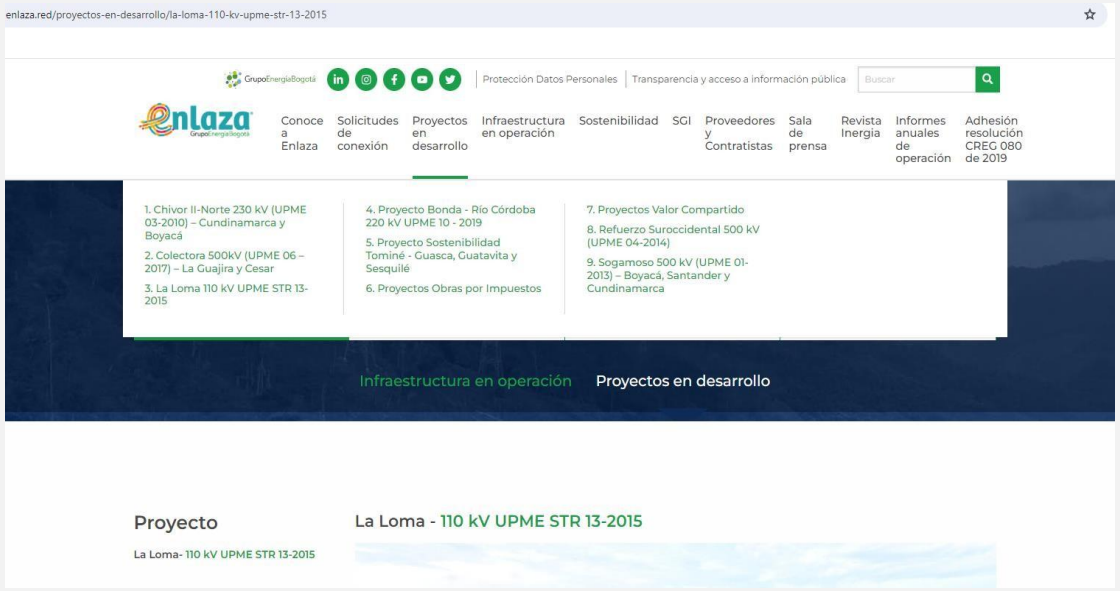
Methodologies according to regulatory framework

GEB identifies and assesses biodiversity-related risks and impacts as part of the Environmental Impact Assessments (EIA) required for all its projects in accordance with the regulatory framework in each country in which it operates.

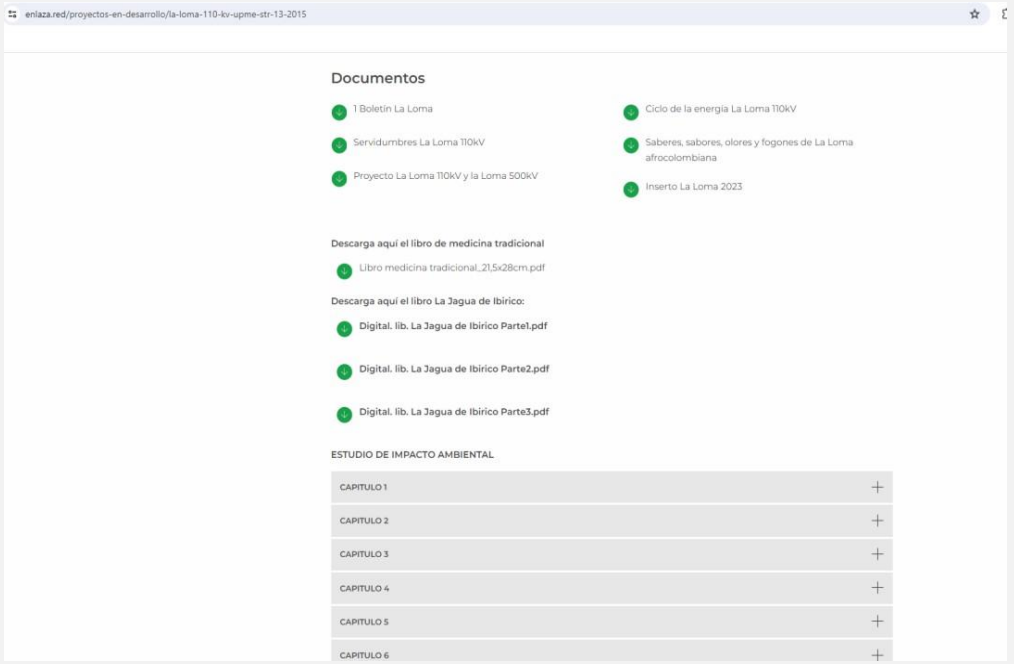
Enlaza, TGI	Resolution 0075 of January 18, 2018. Whereby the terms of reference (ToR 17 2018) for the preparation of environmental impact studies are established.	TdR 17 2018 Pag (50, 78, 103) https://www.anla.gov.co/documentos/normativa/terminos_referencia/tdr_eia_sist_trans.pdf
Cálidda, Contugas, ElectroDunas	Supreme Decree 019:209 regulating the identification, evaluation, prevention, supervision, control and early correction of negative environmental impacts.	https://cdn.www.gob.pe/uploads/document/file/385519/Decreto_Supremo_N__019-2009-MINAM20191013-25586-2jh5x0.pdf?v=1570943859
Conecta	Article 8 Decree 68-86, Amendments to the Regulation of Evaluation, Control and Se - 26-09-2024.	https://observatoriop10.cepal.org/sites/default/files/documents/gt_-_ley_68-86_de_proteccion_y_mejoramiento_del_medio_ambiente_1986.pdf

The assessments are publicly available on the subsidiaries' websites. Due to regulatory requirements, these documents are published in Spanish.

1. Choose the project of interest at: https://www.enlaza.red/proyectos-en-desarrollo

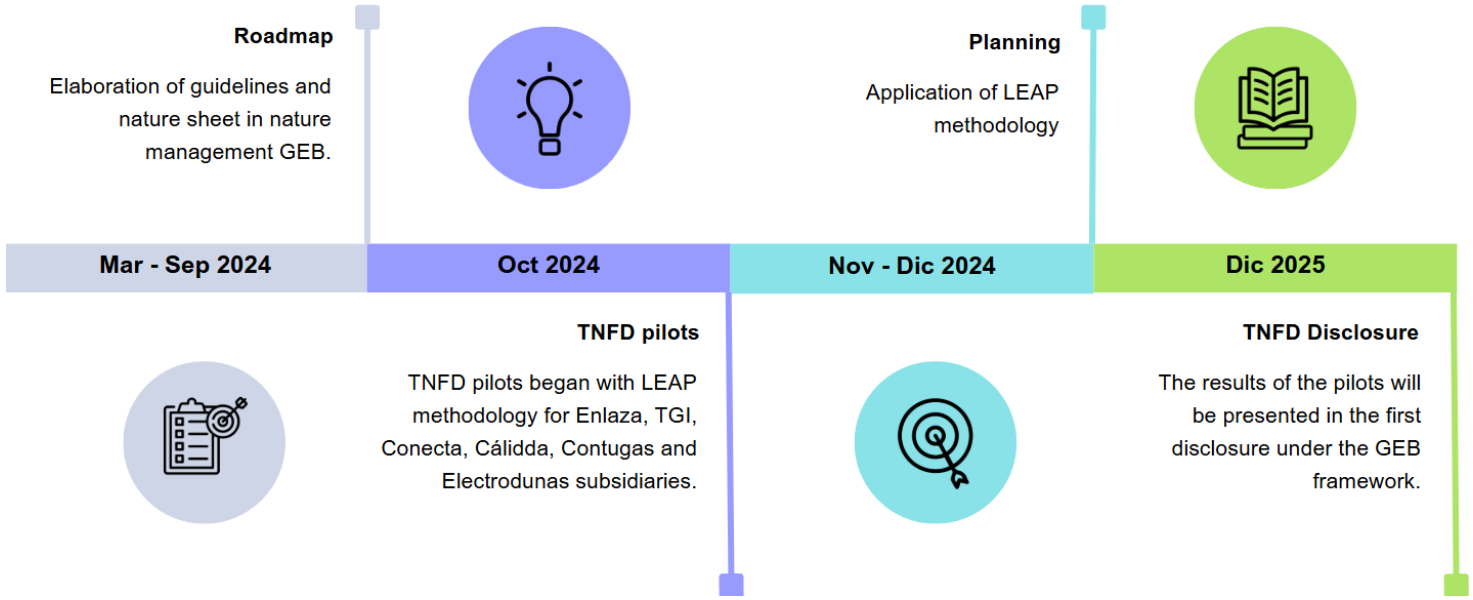


2. Scroll down the page and locate the Environmental Impact Studies section and select the chapter you wish to consult.



Adoption of LEAP methodology in GEB

The GEB assesses impacts, risks, dependencies and opportunities in nature under the TNFD framework and LEAP methodology.

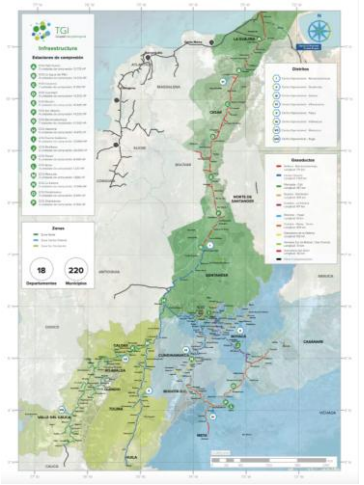


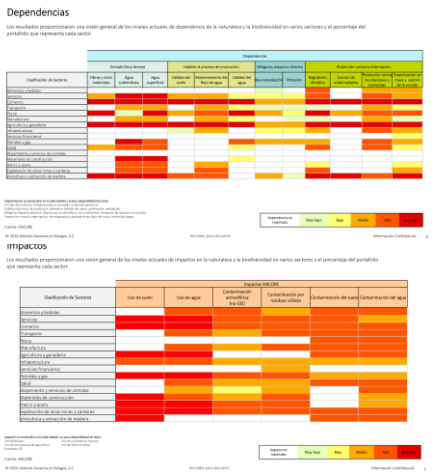
Organisation and HQ Country or Area	TNFD-aligned disclosure(s) by financial year	Sector Classification (SASB)	Type of Institution
Grupo Energía Bogotá Colombia	2025	Oil & Gas - Services	Corporate

Methodologies according to reporting framework (TNFD)

LEAP Methodology - LOCALIZING the interface with nature

L.1. Scope of the business model and value chain → L.2. Detecting dependencies and impacts → L.3. Know the biomes and ecosystems with which it interacts. → L.4. Identify sensitive sites

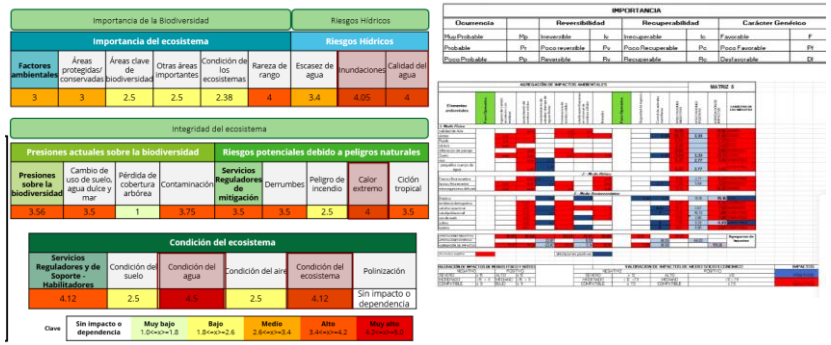




- We rely on geospatial information to identify relevant biomes and ecosystems in the project's area of influence, as well as to locate sensitive sites that may be at risk due to operations. - We consider the initial detection of dependencies and potential impacts associated with key natural resources. We use tools such as Google Earth Pro for geographic visualization, IBAT for the identification of protected areas and vulnerable species, and Encore for the analysis of dependencies and impacts with the ecosystem. In addition, we have previous environmental impact studies (EIA) and fauna and flora monitoring carried out by the subsidiaries, which allows us to integrate relevant contextual information into the process.

EVALUATE dependencies and impacts

E.1. Identify natural assets and ecosystem services → E.2. Identify dependencies and impacts → E.3. Measuring dependencies and impact → E.4. Analyze impact materiality



- At this point, we evaluate not only the presence of critical resources, but also their relevance for the operation of the project and the risk implied by environmental alterations. During this phase, we use tools such as the WWF Biodiversity Risk Filter to measure the risk to biodiversity, ENCORE as a guide for dependencies and impacts, local databases that provide contextual information on the affected ecosystems, and qualitative and quantitative methods that facilitate the comprehensive assessment of the identified impacts.

Methodologies according to reporting framework (TNFD)

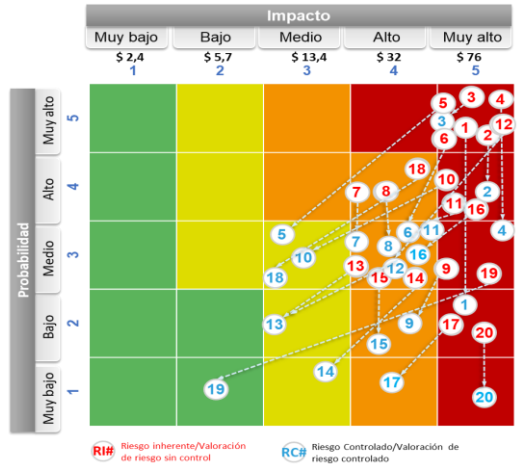
ANALYZE risks and opportunities

A.1. Identify risks and opportunities opportunities

A.2. Incorporate risks and opportunities with their management into existing processes into existing processes

A.3. Measure and prioritize risks and opportunities. risks and opportunities

A.4. Analyze the materiality of risks and opportunities



We analyze risks and opportunities according to territory and biomes, prioritize risks using traditional risk assessment scales and methodology, and measure them using qualitative methodologies. In this process we use tools such as IBAT, WWF Biodiversity Risk Filter, local biodiversity information systems, among others.

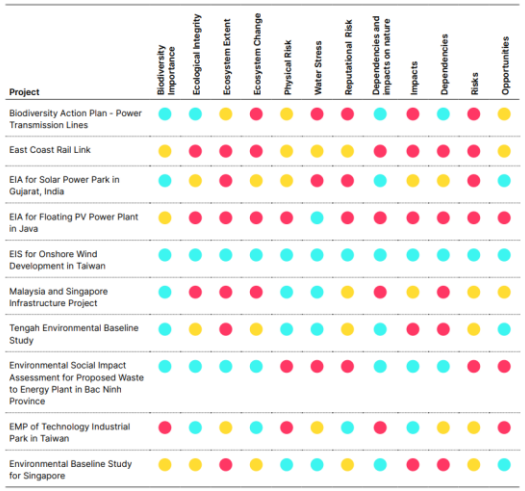
PREPARE to respond and report

P.1. Building a strategy and allocating resources

P.2. Setting objectives and measuring progres

P.3. Generate reports

P.4. Submit disclosures



The last phase of the LEAP approach focuses on structuring a clear strategy to address the risks identified and take advantage of the opportunities detected, as well as on planning the necessary resources to be able to implement the suggested actions. - Here, the focus is not only on preventive or corrective action, but also on setting concrete objectives in nature and defining indicators to measure progress. - In addition, a disclosure and reporting plan is developed to inform stakeholders about the results of the analysis and next steps.

Integration into GEB's multidisciplinary risk management processes.

Description Integration of in GEB Risk Management

Institutional approach

- Model GEB-GIR-PRO-001 based on ISO 31000, COSO and PMI.
- Includes environmental risks and allows for adaptation by subsidiaries.

Articulation with TNFD

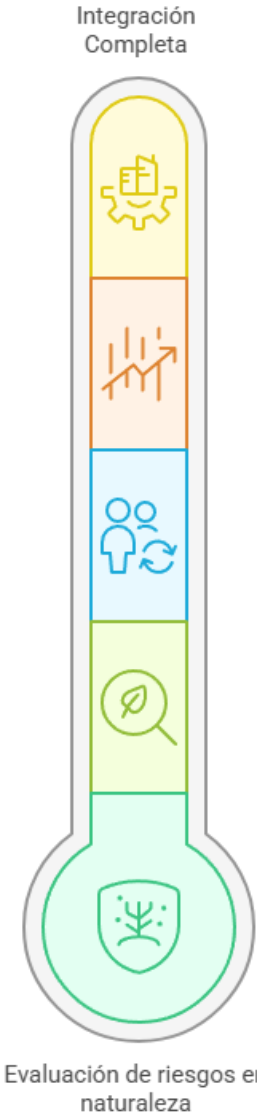
- LEAP applied in 6 subsidiaries since 2024.
- Integrated into risk matrix GIR-PRO-001-F-001.

Governance and roles

- 1st line: projects identify risks (including environmental risks).
- 2nd line: risks and sustainability align processes.
- 3rd line: audit verifies effectiveness of defined controls.
- Risk Committee: escalates findings to Board.

Next steps

- Strengthen strategic and reputational risk management.
- Risks and opportunities identified under the TNFD methodology should be escalated to the Audit and Risk Committee.
- Aligned with risk appetite, tolerance and capacity.



Governance

Formally include TNFD risks in the risk agenda with controls and monitoring.

Strategic Risk

Values biodiversity loss as a strategic risk..

Role Definition

Assigns responsibilities for the adoption of the nature roadmap.

Risk Identification

Integrates nature-related risks using the LEAP methodology.

GEB Risk Model GIR-PRO-001

Consider environmental risks as a category.

Risks and impacts on biodiversity

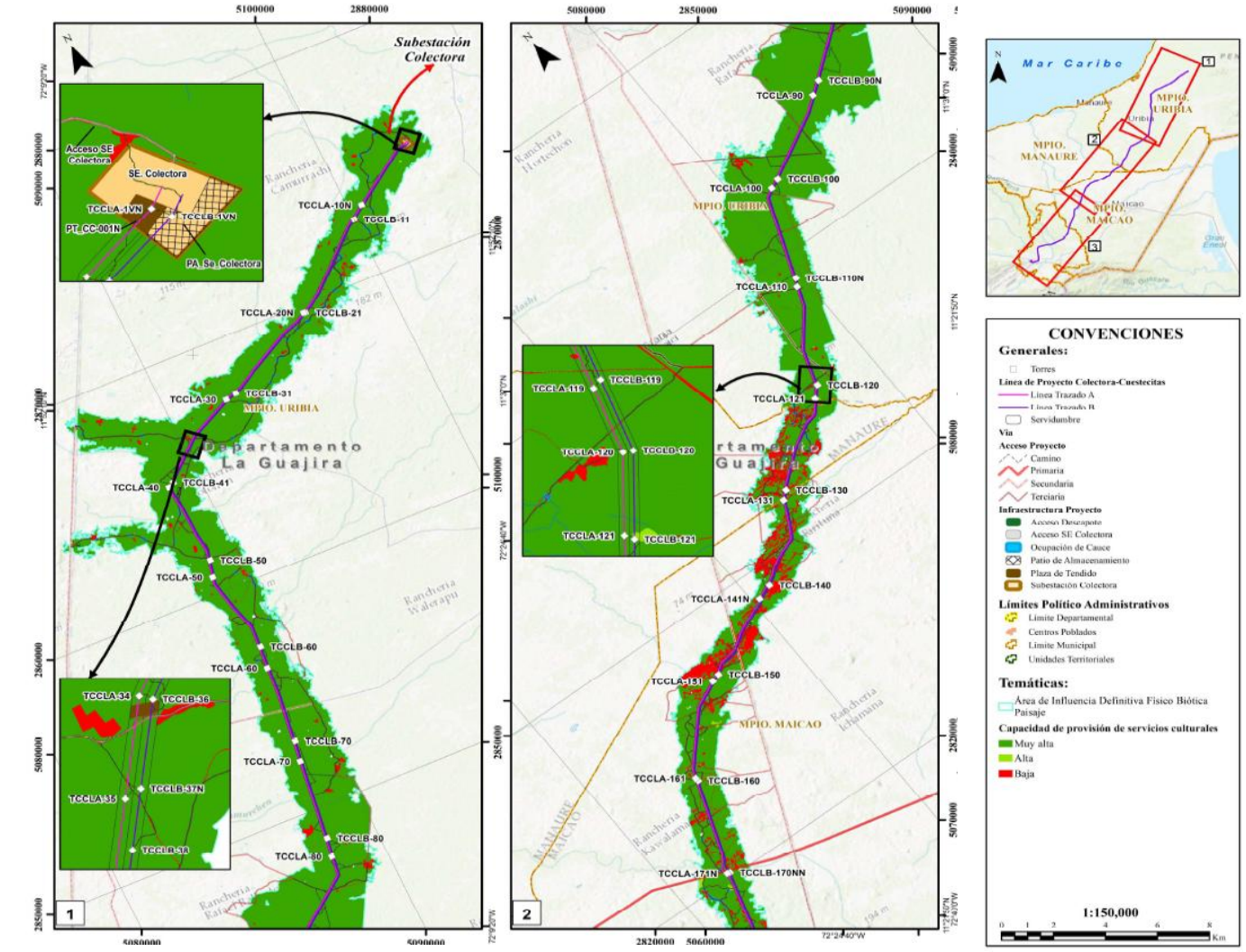
Biodiversity risks related to dependence considered in the risk assessment

Chapter 5 of the EIA shows the characterization of the area of influence in section 5.5.3.3 presents the project's dependencies on ecosystem services and in numeral 5.5.7.1 is the identification of ecosystem services and dependencies.

Tabla 5-2 Criterios para definir el grado dependencia

Grado de dependencia del proyecto a los servicios ecosistémicos	
Dependencia alta	Las actividades que hacen parte integral del proyecto requieren directamente del servicio ecosistémico
Dependencia media	Algunas actividades secundarias que hacen parte integral del proyecto requieren directamente del servicio ecosistémico
Dependencia baja	Las actividades principales o secundarias del proyecto no requieren directamente del servicio ecosistémico

EIA Colectora Cap 5 pag 17, 33, pag 84 y pag 85
https://www.enlaza.red/content/download/51331/719549?version=1



The image shows the layout of the project and in the upper, middle and lower dependencies.

Dependencies

Section 5.5.8 presents the result of the project's dependence on ecosystem services.

Tabla 5-26 Dependencia de las actividades del proyecto a los SSEE

Etapa	No	Actividades	Dependencia
Transversales línea	1	Movilización de personal, materiales, insumos, maquinaria y equipos	Baja
	2	Contratación de personal	Baja
	3	Demanda de bienes y servicios locales	Baja
Pre construcción línea	4	Planeación y estudios preliminares	Baja
	5	Selección de ruta y trazado, plantillado y replanteo	Baja
	6	Gestión y adquisición de servidumbre	Baja
	7	Relacionamiento con la comunidad	Baja
Constructiva línea	8	Adecuación de instalaciones provisionales y de almacenamiento de materiales	Moderada
	9	Replanteo de construcción	Baja
	10	Identificación y adecuación de accesos	Moderada
	11	Adecuación de sitios de torre (remoción, descapote, explanación y excavación)	Alta
	12	Cimentación, relleno y compactación de los sitios de torre	Moderada
	13	Montaje de torres	Moderada
	14	Construcción de obras de protección y estabilización	Baja
	15	Despeje de servidumbre y plazas de tendido	Alta
	16	Tendido e izado del conductor	Moderada
	17	Desmantelamiento de instalaciones provisionales, de patios de almacenamiento de materiales y de accesos temporales	Baja
Operación línea	18	Transporte de energía	Baja
	19	Mantenimiento electromecánico	Baja
	20	Control de estabilidad de sitios de torre	Baja
	21	Mantenimiento zona de servidumbre	Baja
Abandono línea	22	Desmantelamiento de conductores, cables de guarda y de las torres	Baja
	23	Desmantelamiento de obras civiles excavaciones, demolición de fundaciones	Baja
	24	Clasificación, empaque y transporte de material	Baja
Transversal / Subestación	28	Movilización de personal, materiales, insumos, maquinaria y equipos	Baja
	29	Contratación de personal	Baja
	30	Demanda de bienes y servicios locales	Baja
Pre-construcción/ Subestación	31	Planeación estudios preliminares y diseños	Baja
	32	Gestión y adquisición de predios (concertación área del territorio con comunidad)	Baja
	33	Relacionamiento con la comunidad	Baja
Construcción Subestación	34	Localización y replanteo	Baja
	35	Adecuación de instalaciones provisionales y de almacenamiento de material	Media
	36	Adecuación y construcción de acceso a la SE	Alta
	37	Adecuación del terreno (Remoción de la cobertura vegetal, descapote y excavaciones)	Alta

EIA Colectora numeral 5.5.8 (pág 84)
https://www.enlaza.red/content/download/51331/719549?version=1

Dependencies

The following presents the analysis of the project's impact on the ecosystem services identified by the community in the project's socioeconomic area of influence.

EIA Colectora numeral 5.5.8 (pág 84)
https://www.enlaza.red/content/download/51331/719549?version=1

Tabla 5-29 Análisis del impacto del proyecto sobre los SSEE identificados por la comunidad en el área de influencia socioeconómica del proyecto

Tipo SSEE	SSEE	Significancia ambiental del impacto	Dependencia	Correlación significancia / dependencia
Aprovisionamiento	Agua para consumo	Media	Alta	Alta
	Alimento (Flora)	Muy alta	Alta	Alta
	Alimento (Fauna)	Alta	Alta	Alta
	Madera	Muy Alta	Alta	Alta
	Biomasa	Muy Alta	Alta	Alta
	Fibras y resinas	Muy Alta	Media	Alta
	Medicina Tradicional (Flora)	Muy Alta	Alta	Alta
	Medicina Tradicional (Fauna)	Alta	Media	Alta
	Mascotas	Alta	Baja	Medio
	Pesca y Acuicultura	Media	Baja	Medio
	Ganadería	Media	Alta	Alta
	Agricultura	Media	Alta	Alta
Regulación	Regulación del clima	Media	Alta	Alta
	Hábitat de especies	Alta	Alta	Alta
	Regulación de riesgos naturales	Media	Alta	Alta
	Polinización y dispersión de semillas	Media	Alta	Alta
	Control biológico	Media	Alta	Alta
Culturales	Conocimiento e identidad cultural	Media	Alta	Media
	Valores inspiracionales / disfrute estético	Alta	Alta	Alta
	Experiencia espiritual y sentido de pertenencia	Media	Alta	Alta
	Uso tradicional de la biodiversidad	Media	Alta	Alta

Biodiversity risks related to impact considered in risk assessment

Chapter 8 of the EIA presents the environmental assessment of the project, in numeral 8.6.2 there is a description of the impacts on the biotic environment.

In the fauna component, five (5) impacts were identified and evaluated in the two scenarios: Alteration of terrestrial fauna communities, modification of terrestrial fauna habitat, interruption of terrestrial fauna migratory routes, increase or decrease of endemic species and increase or decrease of endangered species.

8.6.2.1.1 Alteración a ecosistemas terrestres

IMPACTO	Alteración a ecosistemas terrestres		
COMPONENTE	Flora		
MEDIO	Biótico		
Actividades sin proyecto	**Ámbito de manifestación**	**Actividades con proyecto**	**Ámbito de manifestación**
SEVERO			
Agricultura	Áreas núcleo coberturas vegetales	Adecuación de sitios de torre (remoción, descapote, explanación y excavación)	Áreas núcleo coberturas vegetales
	Hábitats de las especies focales		Hábitats de las especies focales
	Franjas conectoras *Alouatta seniculus* (contiene rutas de coste mínimo)		Franjas conectoras *Alouatta seniculus* (contiene rutas de coste mínimo)
Ganadería tradicional	Áreas núcleo coberturas vegetales	Despeje de servidumbre y plazas de tendido	Áreas núcleo coberturas vegetales
	Hábitats de las especies focales		Hábitats de las especies focales

EIA Colectora numeral 8.6.2 (pág 202 -251)
https://www.enlaza.red/content/download/51334/719573?version=1

8.6.2.2.1 Alteración a comunidades de fauna terrestre

IMPACTO	Alteración a comunidades de fauna terrestre		
COMPONENTE	Fauna		
MEDIO	Biótico		
Actividades sin proyecto	**Ámbito de manifestación**	**Actividades con proyecto**	**Ámbito de manifestación**
SEVERO			
Quemas	Bosque de galería y ripario	Adecuación de sitios de torre (remoción, descapote, explanación y excavación)	Arbustal denso, vegetación secundaria alta, lagos, lagunas, ciénagas naturales y río
	Arbustal denso y arbustal abierto		
	Vegetación secundaria alta, vegetación secundaria baja		Arbustal abierto y vegetación secundaria baja, jagueyes
Caza, extracción y comercialización de fauna	Bosque de galería	Despeje de servidumbre y plazas de tendido	Bosque de galería y ripario
	Vegetación secundaria alta, vegetación secundaria baja		Arbustal denso, vegetación secundaria alta, lagos, lagunas, ciénagas naturales y río
	Arbustal denso y arbustal abierto		Arbustal abierto y vegetación secundaria baja, jagueyes-
Transporte y movilización	Bosque de galería		
	Vegetación secundaria alta, vegetación secundaria baja		
Incendios	Bosque de galería		
	Vegetación secundaria alta, vegetación secundaria baja		
	Arbustal denso y arbustal abierto		

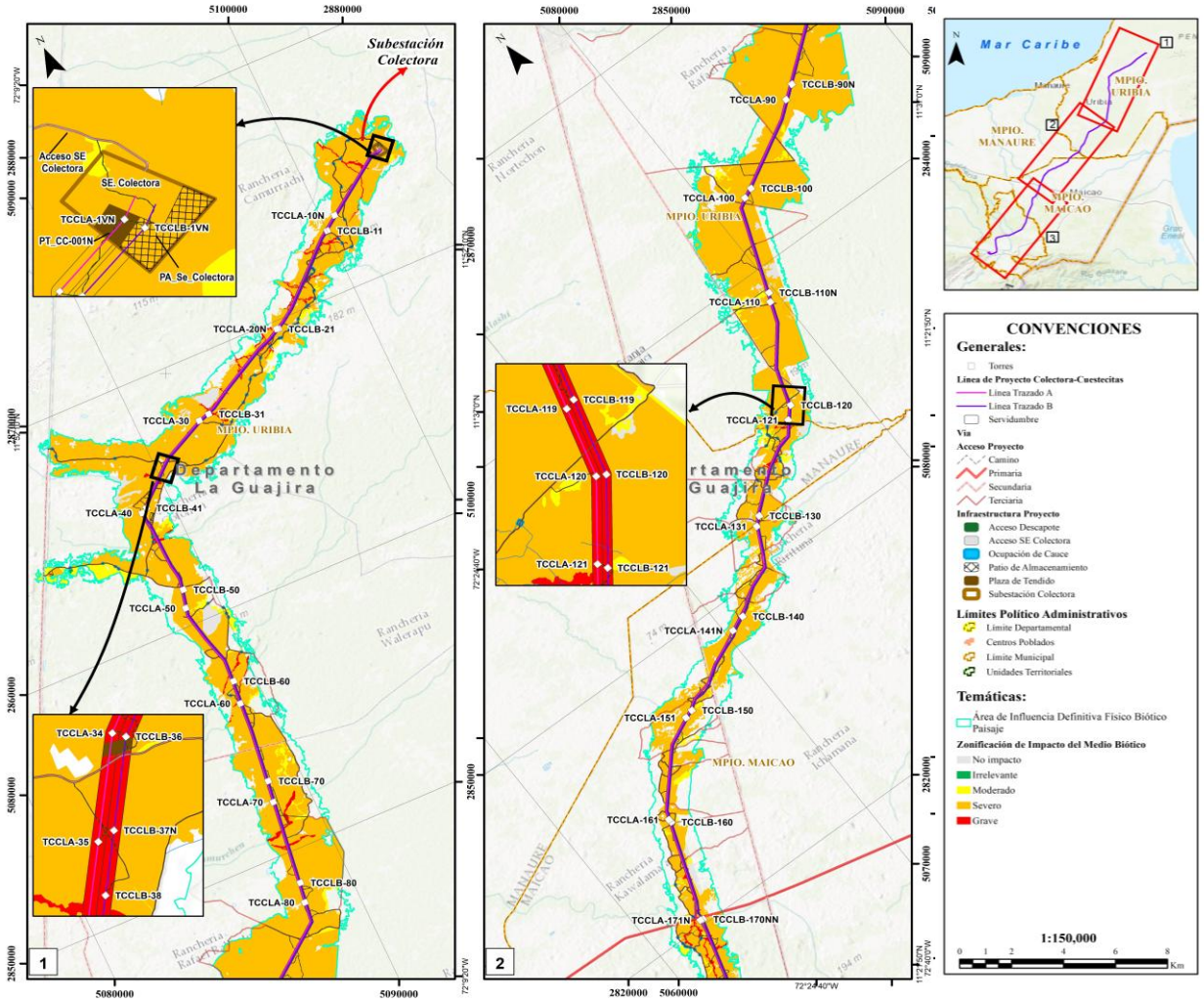
Impacts

The biotic environment considers the impacts on the flora, fauna and aquatic biota (hydrobiological) components, which were identified and evaluated in a scenario with and without the project.

Once the zoning of the components with significant impacts is developed, these are superimposed using the maximums technique and as a result the distribution of the environmental importance categories of the impacts of the biotic environment in the area of influence and in the project intervention area is shown.

Categoría	Área de Proyecto		Área de influencia Preliminar		Área de influencia Definitiva	
	Área (ha)	Área (%)	Área (ha)	Área (%)	Área (ha)	Área (%)
Crítico	-	-	-	-	-	-
Grave	814,27	50,95%	821,51	3,98%	1.219,93	5,08%
Severo	667,94	41,79%	16547,75	80,15%	15.507,17	64,63%
Moderado	111,42	6,97%	817,48	3,96%	1.603,08	6,68%
Irrelevante	0,01	0,00%	-	-	2,84	0,01%-
No Impacto	4,64	0,29%	2.458,08	11,91%	5.660,49	23,59%
Total	**1.598,28**	**100,00%**	**20.644,82**	**100,00%**	**23.992,80**	**100,00%**

EIA Colectora numeral 8.6.2 (pág. 365-378)
https://www.enlaza.red/content/download/51334/719573?version=1

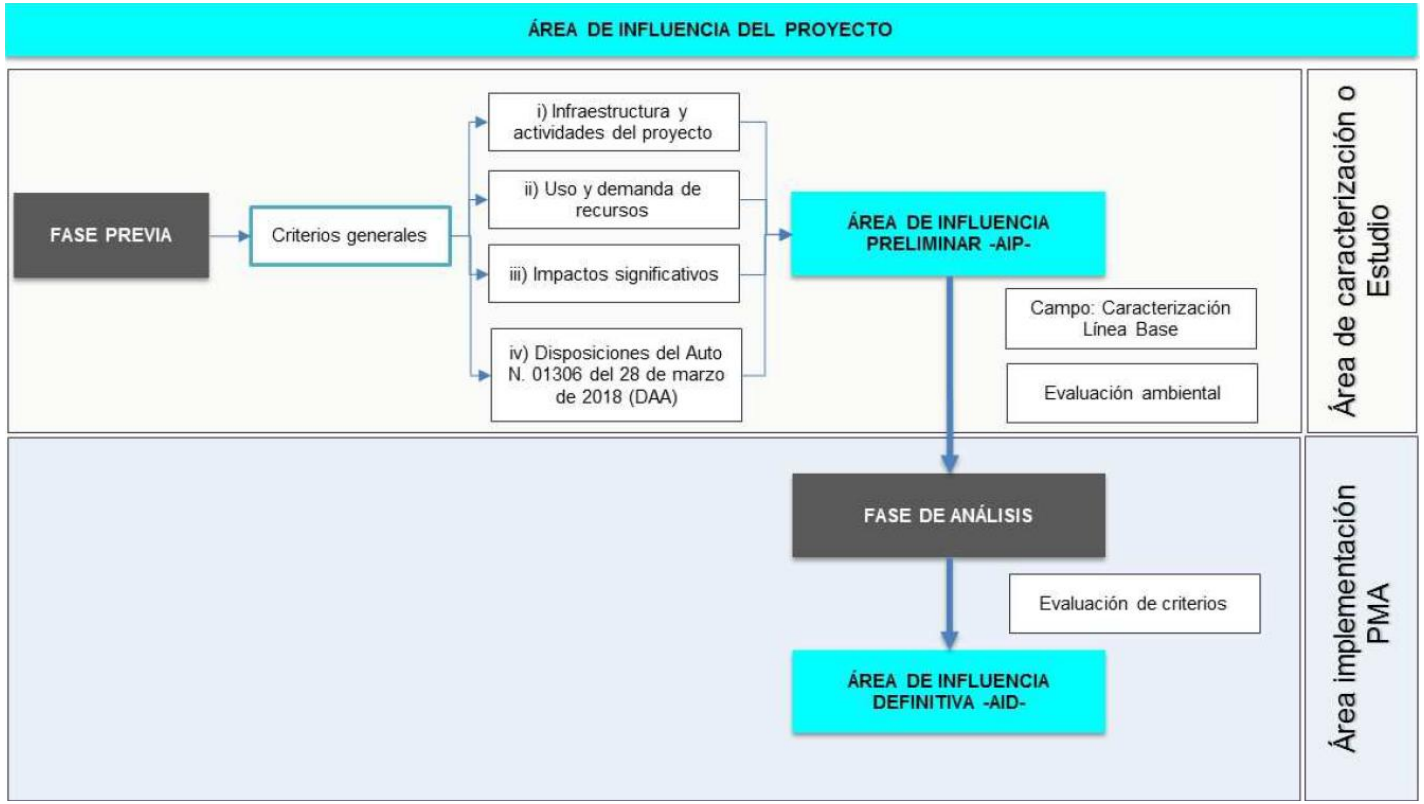


The image shows the line drawing and in the shaded area are the impacts according to the scaling from green to red.

Scope of Biodiversity Risk Assessment

Own operations: the area of direct influence of the project is the area where the impacts generated by construction, operation and maintenance activities are manifested; it is related to the project site and its associated infrastructure.

Capitulo 3 Characterization of the area of influence EIA Pag 26-29
https://www.enlaza.red/content/download/51293/719245?version=1



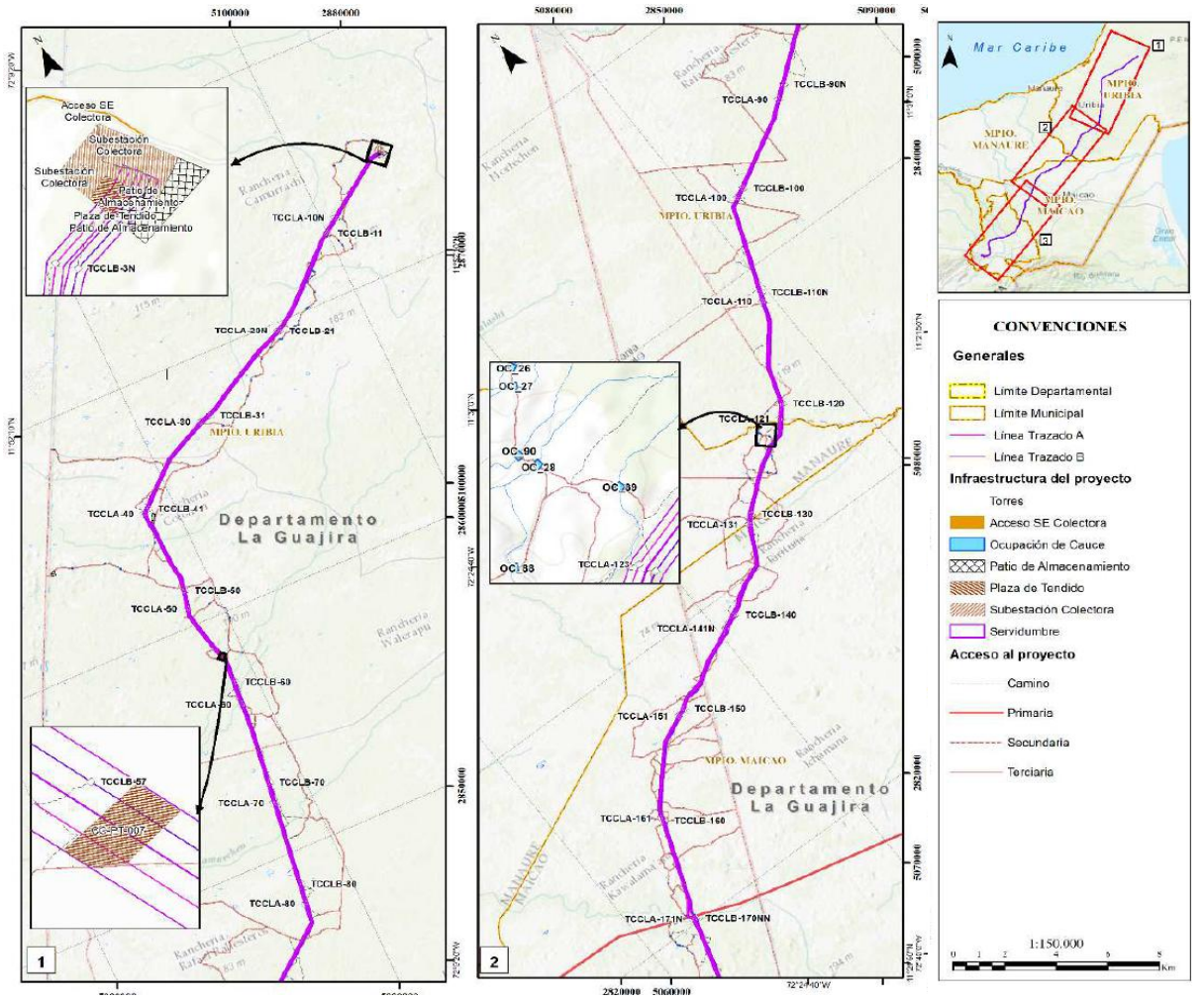
Scope: Own operations

The TOR (Res. 0075 of 2018, ToR-17) require in chapter 3 of the EIA project description to describe in detail the transmission project (line layout, substations, buildings, etc.), with its technical characteristics and stages of construction and operation. This is defined as the project intervention area.

The definition and delimitation was made taking as a base reference the intervention area defined for the project, which is configured by both the temporary and permanent infrastructure of the project: easements, tower sites, accesses with maintenance and/or adaptation activities, storage yards, laying squares, collector substation and its access road.

In addition, Chapter 7 Impact Assessment lists the activities (tower construction, installation of conductors, substation operation, maintenance, etc.) and their direct impacts on natural capital.

Cap 4 EIA Colectora:
https://www.enlaza.red/content/download/51294/719253?version=1
Cap 7 EIA Colectora
https://www.enlaza.red/content/download/51333/719565?version=1



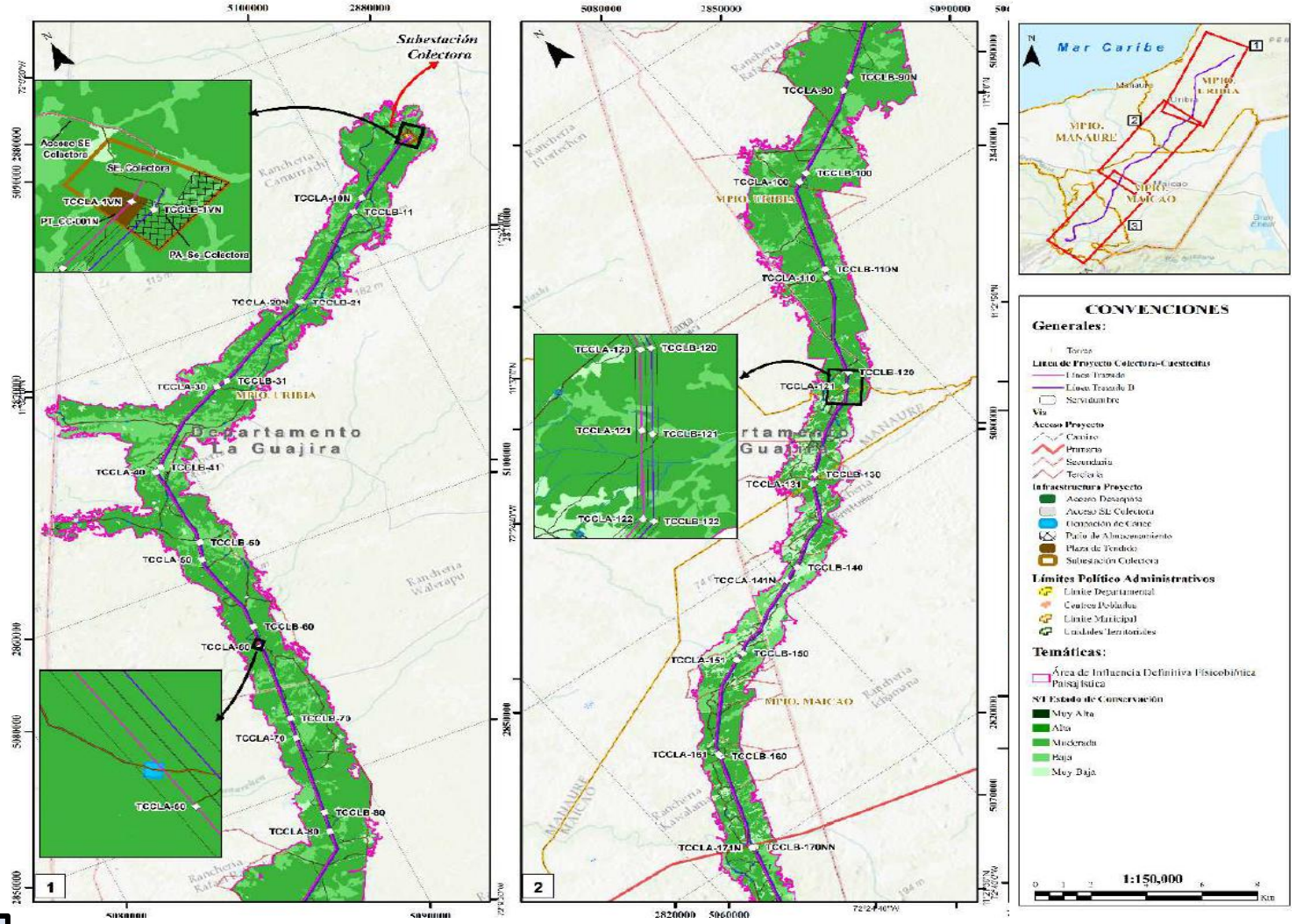
La imagen presenta el trazado del proyecto en donde se realizan operaciones propias de las subestaciones y líneas de transmisión.

Scope: Adjacent áreas (0–2 km)

The terms of reference establish the delimitation and characterization of the project's area of influence. This is reflected in chapter 4 of the EIA where the impact zones of the physical, biotic and socioeconomic environments must be superimposed and the limits of the environmental study defined.

In addition, the TOR mandate environmental zoning to identify areas of intervention, restriction and exclusion. In practice, this explicitly includes sensitive ecosystems, watersheds or critical landscapes contiguous to the route (typically covering the first few kilometers on either side of the line). The information in Chapters 6 abiotic, biotic and socio-economic covers these adjacent territories.

Cao 6 environmental zoning EIA Pag 41-64
https://www.enlaza.red/content/download/51332/719557?version=1



El mapa presenta el trazado de la línea y en la región sombreada en verde están delimitadas las actividades realizadas en zonas adyacentes, mientras más oscuro sea el tono de verde es que es una zona en un alto estado de conservación.

Scope: Upstream

Chapter 7 of the EIA presents the project's demand, use, exploitation and/or impact on natural resources.

Here you can identify the demand for water, the specification of materials, the projected works, forestry use, and the use and destination of the products.
The execution of the project will require the use of stone and granular materials for the construction and adaptation of the transmission lines, as well as the construction of the new collector substation; the project will not directly exploit sources of materials.

Stone material

The stone and granular materials necessary for the foundations of the towers will be obtained from sources of materials located within and near the area of influence of the project, which have valid mining and environmental licenses for their operation granted by the respective entities.

Pag 195-199.

Water supplied through the purchase of water in bulk from companies and/or authorized third parties that have the respective permits from the competent environmental authority to supply the resource for domestic and/or industrial purposes. For this reason, the request for permits or concessions to obtain water from surface and/or subway sources is not contemplated.

Pag 11-20

Forest harvesting

Grupo Energia Bogota (GEB), promoting a sustainable and environmentally friendly development, will clear vegetation only in those sites that, due to the physiognomic characteristics of the trees, represent a risk for the construction and operation of the project as described in the following methodology.

Pag 68-72

EIA Colectora Cap 7 Demand, use, exploitation pages (11-17; 197-200)
https://www.enlaza.red/content/download/51333/719565?version=1

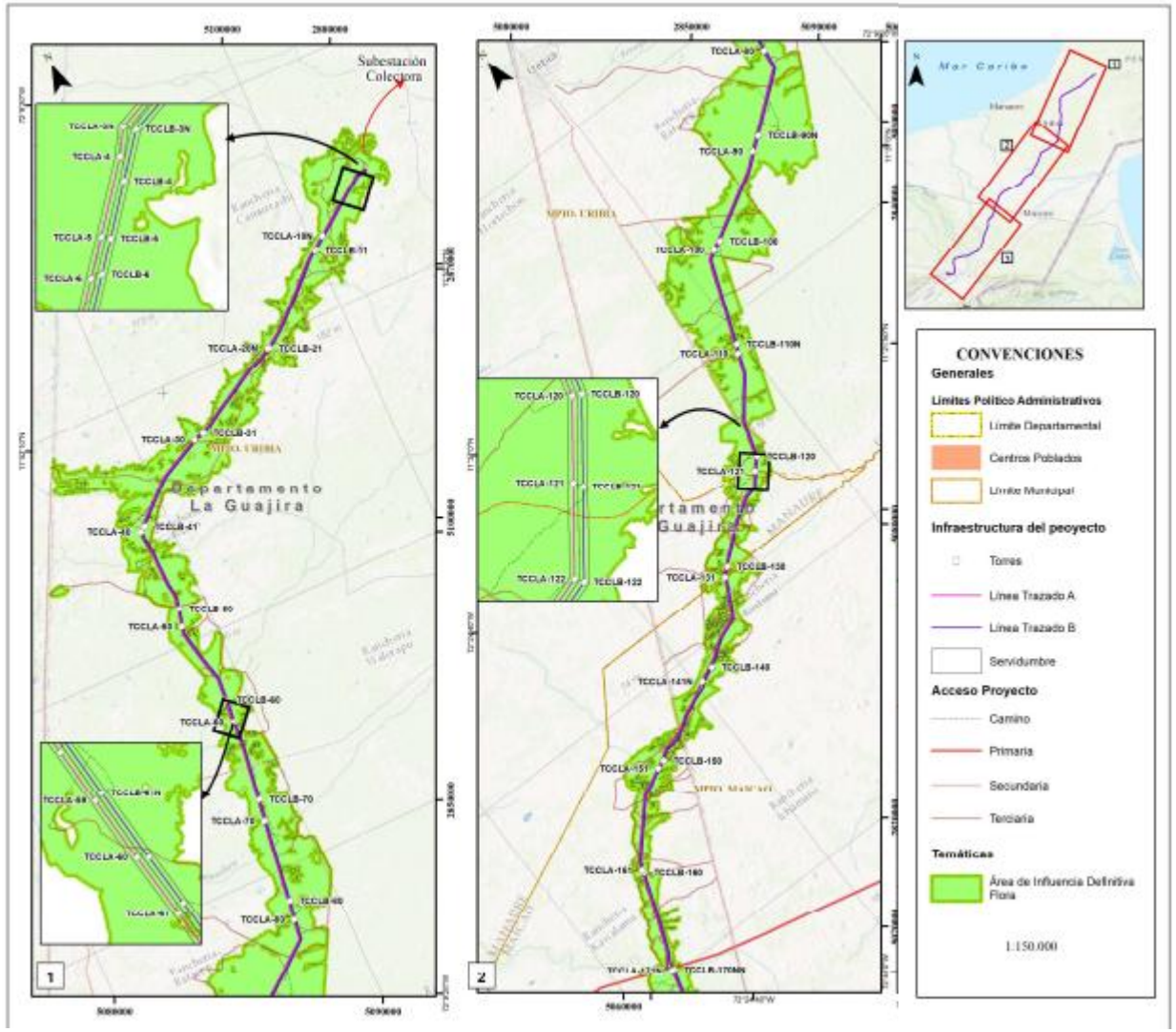
Green shaded areas show the location of material sources.

Downstream

The area of definitive influence includes downstream post-construction and post-operation activities, including biotic and socioeconomic components, through environmental monitoring, as described in Chapter 10 of the EIA. PMA Monitoring Activities (Ch. 10,1,2 page 51-68)

It is important to clarify that the energy transmitted is not delivered to end users.

Cap 10,1,2 Follow-up and monitoring plan PMA pag 51-68
https://www.enlaza.red/content/download/51340/719621?version=1



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