LIFE BUSINESS CASE Energy Sector Itaipu Binacional





LIFE Institute

LIFE Institute is responsible for the technical development and management of **LIFE Methodology**, integrating business and biodiversity.

LIFE Methodology provides strategic guidance to organizations on how to consider biodiversity conservation and maintenance of natural resources on their management and decision-making processes.

LIFE Key is a management software that incorporates **LIFE Methodology.**

The use of LIFE Methodology assists organizations on meeting ESG criteria related to environmental issues by:

- ✓ Measuring business pressure on natural resources, considering environmental aspects such as emissions of greenhouse gases, consumption of energy and water, land cover, and waste generation.
- √ Evaluating business' risks and opportunities related to the business' pressure on natural resources, including their supply chain.
- √ Helping decision makers to strategically guide their investments on conservation efforts.



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LIFE Methodology



• Diagnosis

» Evaluation of Business' Management

Characterization of the Landscape

- » Biodiversity Priorities Identification
- » Ecoregions Fragility
- » Threatened Species

RESPONSE

- Biodiversity Action Plan
 - » Evaluation and Scoring
 - » Biodiversity Positive Performance (BPP)
 - » Conservation Results Indicators
- Management Indicators Improvements
 - » Biodiversity Policy
 - » Suppliers Évaluation

PRESSURE

- Metrics:
 - » Biodiversity Pressure Index (BPI) » Biodiversity Minimum Performance (BMP)
- Ecosystem's Impacts and Dependencies

Integration with global initiatives



LIFE Methodology is aligned to **85%** of targets directly related to the integrity of Biosphere.



LIFE Methodology integrates **90%** of GRI biodiversity-related topics.

This success case shows the trajectory of Itaipu Binacional, using LIFE Methodology



Itaipu Binacional, operator of the Itaipu Hydroelectric Plant, located on the Paraná River (border between Brazil and Paraguay) is a binational enterprise managed by Brazil and Paraguay and a world leader in the production of clean and renewable energy.

Brazil and Paraguay business units are LIFE certified, however this business case is specific for Brazil's unit.

1. Biodiversity Management

Improvements on Biodiversity Management

Different actions were taken by Itaipu Binacional management so that the organization showed its commitment to LIFE biodiversity management's indicators. See some examples.

















2. Biodiversity Pressure Index

The Biodiversity Pressure Index (BPI) is calculated using data from different environmental aspects: water and energy use, GHG emissions, land cover, and waste generation This index allowed the definition of a minimum score in biodiversity commitment for Itaipu Binacional

Total BPI (Biodiversity Pressure Index) and Individual Environmental Aspects and BPI (Biodiversity Pressure Index)

Waste Index

Water Index

Water Index

3. Biodiversity Positive Performance

Pressure Index)

As a response to compensate the BPI the company has to accomplish a Biodiversity Positive Performance (BPP) implementing conservation actions.

Among the main actions of *Itaipu Binacional* for biodiversity are the conservation of **34,000 hectares of Atlantic Forest biome in Brazil**

214.42

321.57

196.14

194.85



The creation of the **Piracema Channel** which allows fishes to migrate along the Paraná River

The implementation of the Santa Maria Biodiversity Corridor

connecting the Iguaçu National Park to the reservoir protection strip, to the south, and to Ilha Grande National Park, to the north



Projects for the **reproduction of fauna species typical**

of the Atlantic Forest and which are threatened

