WBCSD TNFD pilot use case: 
*Iberdrola*

Locate & Evaluate phases of LEAP
The LEAP approach is TNFD’s voluntary nature-related risk and opportunity assessment approach for corporates and financial institutions.

LEAP has been designed and developed with three overarching considerations in mind:

1. The LEAP approach encourages users to carefully consider the scope of their assessment before commencing;

2. Analysts and preparers are encouraged to consult with relevant stakeholders as they work their way through the LEAP approach; and

3. LEAP is designed as an iterative process – across business locations, business lines for corporates, and across investment portfolios and asset classes for financial institutions – in line with enterprise risk management processes and reporting and disclosure cycles.

LEAP is not, in itself, a recommended disclosure or a mandated process to adhere to the disclosure recommendations put forward by the TNFD.

As such, not everything that is identified, assessed and evaluated using the LEAP approach needs to be disclosed.
The following Use Case report shows an example of how a company’s previous approach to assessing nature impacts, dependencies, risks and opportunities, can be aligned with the Taskforce for Nature-related Financial Disclosures (TNFD)’s LEAP approach. It is important to note that Iberdrola has been publishing comprehensive biodiversity reports since 2007 and have been performing nature and biodiversity analysis as part of this. Their methodology and results pre-date the TNFD LEAP approach, and therefore the mapping to the LEAP steps gives an indication of how their practices are already aligned to the TNFD’s latest recommendations.

Iberdrola announced last December their 2030 Biodiversity Plan and their goal to have net positive impact on Biodiversity by 2030. The Plan is aligned with TNDF and SBTN principles and Iberdrola’s approach to managing nature related risks will continue to evolve as the TNFD framework is finalized. Iberdrola are now adapting their approach to further align with the latest version of the LEAP approach, and emerging guidance.
This use case covers Iberdrola’s approach to the **Locate** and **Evaluate** phases of LEAP, and how findings inform the **Assess** and **Prepare** phases.

### Scoping

Before carrying out the Locate and Evaluate phases, Iberdrola analyses their business operations to identify which activities have the most material interaction with nature and ecosystem services.

To do this, Iberdrola conducts a high-level impact and dependency assessment on nature and ecosystem services per activity type (generation type, distribution, etc.). This analysis together with its business strategy informs Iberdrola regarding which activities are most material and therefore which should be the focus of the LEAP assessment.

**Locate**

**Interface with Nature**

- **L1 Business footprint**
  - Where are our direct assets and operations, and our related value chain (upstream and downstream) activities?

- **L2 Nature interface**
  - Which biomes and ecosystems do these activities interface with?
  - What is the current integrity and importance of the ecosystems at each location?

- **L3 Priority location identification**
  - At which locations does our organisation and its value chain(s) operate in high integrity ecosystems, areas of rapid decline in ecosystem integrity, areas of high biodiversity importance, areas of water stress and/or areas with potential significant dependencies or impacts?

- **L4 Sector identification**
  - What sectors, business units, value chains or asset classes are interfacing with nature in these priority locations?

Iberdrola maps their locations and operations with different ecosystems they interface with.

Iberdrola identifies the nature interface of their assets to support which locations should be prioritized. Then, Iberdrola identifies their priority assets based on the state of nature at those locations and local impact data on species. This is performed in an iterative process.

Iberdrola categorizes its priority assets by activity type and location.

**Evaluate**

- **E1 ID of relevant environmental assets and ecosystem services**
  - What are our business processes and activities at each priority location? What environmental assets and ecosystem services do we have a dependency or impact on at each priority location?

- **E2 ID of dependencies and impacts**
  - What are our nature-related dependencies and impacts across our business at each priority location?

- **E3 Dependency analysis**
  - What is the size and scale of our dependencies on nature in each priority location?

- **E4 Impact analysis**
  - What is the size and scale of our nature impacts in each priority location?

Iberdrola identifies ecosystem services they are reliant on and key actions impacting biodiversity.

The Corporate Environmental Footprint (CEF) allows Iberdrola to quantify the impact of its activities on the environment from the Life Cycle Perspective. This allows Iberdrola to understand the scale and type of impacts across the value chain.
Iberdrola maps the locations of their own operations, including activity type and region

**Process**

- Iberdrola identifies the countries in which it operates. It operates in multiple countries, focusing its activity on six regions:
  - Spain, United Kingdom, United States, Brazil, Mexico
  - International (which includes, among other countries: Australia, Germany, Portugal, France, Italy, Ireland and Japan)

- For each of these six regions, Iberdrola maps the activities and facilities of Iberdrola Group, including:
  - Main offices
  - Area of electricity distribution (where relevant)
  - Areas of influence
  - Length of power lines (km²) (where relevant)
  - Projects under construction (including the type of project)

**Output**

Iberdrola provides maps for main countries of operation to show asset locations, asset type and their level of influence by region.

Figure 2: Iberdrola biodiversity report 2022, Spain case study.
Source: Iberdrola Biodiversity Report 2022 p.34
Iberdrola identifies the nature interface for their key assets to support which locations should be prioritized

**Process**

Once their key assets have been identified, Iberdrola combines asset data with nature-related datasets e.g. Ramsar wetlands and Natura 2000 to identify their priority locations. Iberdrola also looks at water stressed regions as a way to prioritize location, using the Aqueduct Water Risk Atlas. To do this, Iberdrola:

- Collects data on the environmental surroundings (e.g. Ramsar wetlands, Natura 2000) and calculates the area/length of ecosystem affected by their assets, as well as identifying the technology type of the asset;

- Monitors the IUCN Red List, national and regional lists, to identify threatened species and associated threat categories for its facilities in the 6 regions (see Figure 3)

- Conducts studies around their facilities prior to the approval of the project. These studies vary depending on the project, and may include bird sighting studies, endemic species studies and habitat characterization studies.

**Output**

<table>
<thead>
<tr>
<th>IUCN Red List of Threatened Species</th>
<th>Critically endangered (CR)</th>
<th>Endangered (EN)</th>
<th>Vulnerable (VU)</th>
<th>Near Threatened (NT)</th>
<th>Least Concern (LC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td>8</td>
<td>20</td>
<td>41</td>
<td>53</td>
<td>561</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>12</td>
<td>120</td>
</tr>
<tr>
<td>United States Canada</td>
<td>2</td>
<td>13</td>
<td>12</td>
<td>11</td>
<td>39</td>
</tr>
<tr>
<td>Brazil</td>
<td>4</td>
<td>17</td>
<td>33</td>
<td>34</td>
<td>584</td>
</tr>
<tr>
<td>Mexico</td>
<td>0</td>
<td>4</td>
<td>6</td>
<td>12</td>
<td>306</td>
</tr>
<tr>
<td>IEI</td>
<td>0</td>
<td>2</td>
<td>6</td>
<td>10</td>
<td>105</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>16</strong></td>
<td><strong>55</strong></td>
<td><strong>100</strong></td>
<td><strong>113</strong></td>
<td><strong>1,393</strong></td>
</tr>
</tbody>
</table>

Figure 3: Protected species near facilities which could be potentially impacted (p 42). Source: Iberdrola Biodiversity Report 2022

Iberdrola provides a table to show how assets interface with threatened species. This allows Iberdrola to see which of their regions converge with hotspots for threatened species.

- NB: The presence of a protected species near to a site does not necessarily mean that the species is impacted by Iberdrola.

At this stage, organizations can choose from multiple data sources which may inform which locations should be prioritized. Datasets will vary in terms of granularity as well as their relevance to sectors and biomes.
Process

Results from L1 and L2 are combined to inform which locations Iberdrola considers to be priority in order to conduct a full LEAP assessment (see Figure 4).

Iberdrola considers a sectoral lens and how business processes differ between sections of their value chain. For example, considering the value chain of their electricity and the green hydrogen sector.

**Generation of electricity and green hydrogen**
- Construction, operation and maintenance of power generation plants; and purchase/sale of energy on wholesale markets

**Transmission and distribution**
- Construction, operation and maintenance of electrical power grids, substations, transformer centres and other infrastructure, to bring electrical power from production centres to the end user and to integrate distributed generation within the grid

**Sale of electricity and gas, innovative products and services (Smart)**
- End user supply of electricity, gas, ‘smart’ and innovative energy products and services

Output

<table>
<thead>
<tr>
<th>Technology</th>
<th>Location with respect to the protected area</th>
<th>Affected Area/Length</th>
<th>Degree of protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydroelectric power plants - Reservoirs</td>
<td>interior</td>
<td>31,505 ha</td>
<td>Biosphere reserves, Ramsar Wetlands, Natura 2000 Network, national parks and natural parks.</td>
</tr>
<tr>
<td>Power lines</td>
<td>interior</td>
<td>19,315 km</td>
<td>Natura 2000 network, Ramsar Wetlands, National Parks, Natural Parks, Biosphere Reserves.</td>
</tr>
<tr>
<td>Substations</td>
<td>interior</td>
<td>131 units</td>
<td>Natura 2000 network, Ramsar Wetlands, National Parks, Natural Parks, Biosphere Reserves.</td>
</tr>
<tr>
<td>Transformer stations</td>
<td>interior</td>
<td>8,425 units</td>
<td>Natura 2000 network, Ramsar Wetlands, National Parks, Natural Parks, Biosphere Reserves.</td>
</tr>
<tr>
<td>Onshore wind farms</td>
<td>interior</td>
<td>568 ha</td>
<td>Natura 2000 Network, Important Bird and Biodiversity Areas</td>
</tr>
<tr>
<td>Nuclear power plants</td>
<td>Adjacent</td>
<td>82 ha</td>
<td>Natura 2000 Network</td>
</tr>
<tr>
<td>Thermal power plants</td>
<td>Adjacent</td>
<td>3 units</td>
<td>Nature 2000 Network and Important Bird and Biodiversity Areas</td>
</tr>
</tbody>
</table>

Figure 4: Facilities within or adjacent to protected areas or high biodiversity value areas. Source: Iberdrola Biodiversity Report 2022 p.39

Companies should be thinking about what is the threshold for a priority location. Example criteria could involve whether there is overlap with a protected area, a protected species or area of water stress.

Iberdrola provides a table to show how their assets interface with protected areas. This enables the organization to see which technology types to prioritize for further analysis based on their protection status.
Iberdrola identifies where they depend on ecosystem services and which processes have key impacts on biodiversity

**Process**

**Identification of ecosystem services, dependencies and impacts**

Iberdrola analyzes the business activities - rather than locations - of the group, to identify ecosystem services. After initially using ENCORE to do this, Iberdrola currently uses the CICES list of ecosystem services which provides more granular data and maps ecosystem services per technology. The materiality matrix developed by the Natural Capital Spanish Energy Sector Working group is used to identify high level dependencies and impacts on biotic/abiotic resources and ecosystem services per type of activity (e.g. distribution, transmission, onshore wind).

The ecosystem services identified include: waterway maintenance, climate regulation, land stabilization and erosion control and protection against floods and extreme weather. Iberdrola then refine this list using location-specific data from pilot projects and annual reporting data from the assets (e.g. MW installed), which are then aggregated to report material impacts and dependencies for reporting.

**Dependencies**: Material dependencies identified include abiotic supply resources, of which water, mineral and non-mineral resources are significant for Iberdrola.

**Impacts**: Iberdrola identifies which key business actions within the 4 stages of an asset’s life cycle could have an impact on biodiversity (see right). From the identified actions, they distinguish the potentially significant impacts on biodiversity stemming from the group’s activities, products and services.

At this stage, companies should be thinking which methodology is best to identify their impacts and dependencies and whether they are using any external data sets.

**Output**

Figure 5: Iberdrola’s Life cycle activities and impact on the environment. Source: Iberdrola Biodiversity Report 2022 p. 47

In the Energy sector, it is important for the impact assessment to consider each phase of the infrastructure lifecycle.

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**NB**: LEAP is an iterative process, which means that the Evaluate and Locate phases may be iterated to build a clear picture of both the company level dependencies/impacts, as well as the location-specific dependencies/impacts. For example, Iberdrola note that from their experience some impacts on species can occur in areas not identified as ‘High Biodiversity value’ and therefore performing ‘L’ before ‘E’ may miss some species out of their prioritization.
The Corporate Environmental Footprint (CEF) allows Iberdrola to quantify the impact of its activities on the environment

**Process**

- At the facility level, Iberdrola uses a variety of environmental assessments to assess new projects and monitor/control the impacts of their operations.

- At the corporate level, Iberdrola uses the Corporate Environmental Footprint (CEF) to objectively identify and compare the impact of its activities on the environment from a Life Cycle perspective and therefore have a sense on the impacts of the value chain.

- The CEF enables Iberdrola to trace their impact pathways and, identify the environmental aspects and the facilities, technologies and regions responsible. The ReCiPe12 methodology is followed, based on UNE-EN ISO 14040:2006 and UNE-EN ISO 14044:2006 standards. This was applied to Iberdrola applies this methodology to their products/services to quantitatively analyze their life cycle.

**Output**

<table>
<thead>
<tr>
<th>IMPACT CATEGORIES</th>
<th>DIRECT SCOPE (Points)</th>
<th>DIRECT SCOPE (Points)</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate change (Human health)</td>
<td>540,647,218</td>
<td>2,825,215,029</td>
<td>3,365,862,447</td>
</tr>
<tr>
<td>Ozone layer depletion</td>
<td>413</td>
<td>590,920</td>
<td>551,333</td>
</tr>
<tr>
<td>Human toxicity</td>
<td>305,421</td>
<td>361,056,189</td>
<td>361,361,601</td>
</tr>
<tr>
<td>Photochemical ozone formation</td>
<td>29,329</td>
<td>153,371</td>
<td>182,700</td>
</tr>
<tr>
<td>Particulate matter formation</td>
<td>47,143,431</td>
<td>622,070,455</td>
<td>669,213,886</td>
</tr>
<tr>
<td>Ionising radiation</td>
<td>0</td>
<td>10,027,455</td>
<td>10,027,455</td>
</tr>
<tr>
<td>Climate change (Ecosystems)</td>
<td>45,538,324</td>
<td>237,989,530</td>
<td>283,528,853</td>
</tr>
<tr>
<td>Soil acidification</td>
<td>37,072</td>
<td>373,976</td>
<td>411,047</td>
</tr>
<tr>
<td>Freshwater eutrophication</td>
<td>0</td>
<td>305,886</td>
<td>305,886</td>
</tr>
<tr>
<td>Soil ecotoxicity</td>
<td>286</td>
<td>369,040</td>
<td>369,325</td>
</tr>
<tr>
<td>Freshwater ecotoxicity</td>
<td>1</td>
<td>1,053,477</td>
<td>1,054,478</td>
</tr>
<tr>
<td>Marine ecotoxicity</td>
<td>5</td>
<td>179,942</td>
<td>179,942</td>
</tr>
<tr>
<td>Rural land occupancy</td>
<td>0</td>
<td>29,941,590</td>
<td>29,941,590</td>
</tr>
<tr>
<td>Urban land occupancy</td>
<td>50,233,504</td>
<td>2,529,455</td>
<td>52,762,960</td>
</tr>
<tr>
<td>Natural land transformation</td>
<td>0</td>
<td>13,841,954</td>
<td>13,841,954</td>
</tr>
<tr>
<td>Mineral resource depletion</td>
<td>0</td>
<td>156,021,217</td>
<td>156,021,217</td>
</tr>
<tr>
<td>Fossil fuel depletion</td>
<td>0</td>
<td>3,978,149,078</td>
<td>3,978,149,078</td>
</tr>
<tr>
<td><strong>TOTAL Points</strong></td>
<td>683,936,103</td>
<td>8,241,828,516</td>
<td>8,925,763,619</td>
</tr>
</tbody>
</table>

Figure 6: Impact scores of Iberdrola’s activities.

Source: Iberdrola Biodiversity Report 2022 p. 50
Iberdrola takes the outputs from Locate and Evaluate phases and incorporates them into their target setting process

Assess

- Iberdrola uses the outputs from Locate and Evaluate phases to identify their risks and opportunities in conjunction with its Comprehensive Risk Control and Management system.
- The risk / opportunity assessment detail and quantification vary depending on the data availability and understanding of the risk / opportunity. For example, certain aspects of nature (e.g. regulating ecosystem services) use a heatmapping approach, where others (e.g. water) use asset tagging or scenarios.
- Having identified the key risks, Iberdrola considers what risk management is in place already, and any additional measures that are needed. For example, they have location specific mitigation measures for each of their locations.

For example:

- For networks in Brazil, Iberdrola take into account the risk of vegetation loss. Two programs have been created to improve ecosystem health: 1) Degraded Areas recovery plan and 2) Forest compensation program.
- In Spain, the evaluation risk of impacts on species in networks and onshore renewables have resulted in several projects such as: the modification of the powerline poles to avoid electrocution in areas of higher risk; and the introduction of innovative mitigation measures for wind farms (painting blades, radar + AI, etc.).

Prepare

- Iberdrola has 2 overarching targets:
  - 2030 Target: Have a net positive impact on biodiversity
  - Commitment to no deforestation by 2025

Based on their site specific analysis Iberdrola also sets goals for their priority locations. To achieve these goals they have developed action plans. For example; in one of their locations in Brazil (Baixo Iguacú Hydroelectric Power Station), their goal is to conserve, restore and regenerate the Atlantic Forest biome; and they have set an action plan accordingly.