Assessing and acting on nature-related issues:

Insights from business case studies in the energy system (through the lens of the ACT-D framework)

SUSTAIN

Strengthening Understanding and Strategies of Business to Assess and Integrate Nature

Contents

Introd	uctic	n	2			
	1.1.	About the SUSTAIN project and this document	3			
	1.2.	The business-nature loss nexus and the role of the energy system	4			
	1.3. Understanding what is material - a key step for a credible strategy to address nature					
		ractice in the energy system – examples of a strategic approach on nature e lens of the ACT-D framework	ç			
:	2.1.	Why energy companies are taking action on nature	1			
	2.2.	Strategic approach: Step 1 – Assess	13			
	2.3.	Strategic approach: Steps 2 & 3 – Commit and Transform	23			
:	2.4.	Strategic approach: Step 4 – Disclose	29			
	2.5.	Key challenges and lessons learned	3′			
Annex	1: To	ols and databases	33			
Ackno	wled	gements	35			

1. Introduction

1. Introduction

1.1. About the SUSTAIN project and this document

The **SUSTAIN** – Strengthening Understanding and Strategies of Business to Assess and Integrate Nature – project aims to provide businesses, financial institutions, and regulatory bodies with the knowledge and resources to better understand, assess, and monitor the dependencies and impacts on nature from activities across different sectors of the economy.ⁱ

This document offers practical insights that build on existing resources, including the **Roadmaps to Nature Positive: Foundations for all businesses** and **Taskforce on Nature-related Financial Disclosures (TNFD) LEAP** (Locate, Evaluate, Assess, Prepare) approach. Its aim is to enhance understanding of how companies can strategically identify and manage nature-related issues.¹ This is illustrated through real company examples.

This document presents case studies of businesses in the energy system, which accompany similar documents focusing on agri-food and the built environment. Each of these documents presents how companies are working to identify and assess nature-related issues in alignment with the **Highlevel Business Actions on Nature to Assess, Commit, Transform and Disclose (ACT-D)** framework. While all four steps of ACT-D are addressed, the primary focus is on the initial step, Assess, emphasizing the importance for companies to systematically address relevant nature-related dependencies, impacts, risks and opportunities (DIROs). By doing so, a company is more likely to develop a credible strategy on nature, in line with the **Now for Nature** campaign, and be on the right path towards contributing to the **Global Goal for Nature** – to halt and reverse nature loss by 2030 on a 2020 baseline, and achieve full recovery by 2050.

This document on the **energy system** presents three energy company case studies showcasing their nature journey through the strategic steps of ACT-D framework: **Iberdrola**, **Equinor** and **CLP**. Each case study is different, as there is no 'one-size-fits-all' approach: the case studies are included to inform and inspire action in other companies. Given the evolving nature of sustainability practices, it is advisable to continuously review and update strategies in line with emerging industry standards, regulatory changes, and evolving best practices.

Who is this resource for?

Sustainability and nature teams within companies, civil society organizations working with the business community, financial institutions (investing in the focus sectors) can all use this document to deepen their understanding how to start identifying and assessing nature-related issues, and to apply further strategic steps. It provides an opportunity to learn about the challenges, risks, and opportunities experienced by peers.



¹Nature-related issues: organisations have dependencies and impacts on nature, which give rise to nature-related risks and opportunities (TNFD, 2023)

1.2. The business-nature loss nexus and the role of the energy system Nature and business

All businesses depend on nature and its services, whether through direct operations or their value chains.^{III} This means every sector is **exposed to nature risk**, either directly or indirectly, due to reliance of economic activities on the stock of natural capital and the ecosystem services that flow from it. This impact extends to all stakeholders (see Figure 1).^{IIII}

In 2022, the **Kunming-Montreal Global Biodiversity Framework (GBF)**, also now known as **The Biodiversity Plan** was adopted by 196 countries, setting the global mission of "halting and reversing biodiversity loss by 2030". Governments together with other stakeholders, including business, need to play their role to ensure the achievement of the global plan's 4 goals and 23 targets.^{iv}

By proactively managing nature-related risks, companies can prepare for impending policy and regulatory requirements and identify priority actions that reduce negative impacts on nature, while unlocking opportunities across the value chain.^v

Furthermore, **climate and nature are interconnected**: restoring nature and protecting biodiversity is a mutually supporting goal to address the climate crisis. Climate change is the third major driver of nature loss by order of impact. Conversely, the loss of nature and unsustainable use and management of natural resources represents the second largest source of carbon emissions and is a key driver of climate change. Addressing one crisis necessitates addressing the other simultaneously.^{vi} Figure 1: Nature impacts and dependencies create nature-related risks



Source: Adapted from TNFD, BloombergNEF (2023)

Role of the energy system

Through energy system's² large-scale use of land (to develop projects on) and water (for operations) and its high contribution to greenhouse gas (GHG) emissions, the system has broad and significant impacts and dependencies on nature (*see Figure 2*). Together, these dependencies and impacts pose risks to business continuity and enterprise value, as well as to society and the achievement of global nature targets.^{vii}

Energy is used by almost all of society. This means that transition within energy companies toward nature positive can stimulate positive impacts on nature throughout entire value chains and beyond.

Companies that sustainably manage natural resources and their impacts on nature will have a competitive advantage over peers that do not. This creates an important opportunity to strengthen business performance in the eyes of investors and other stakeholders.

These advantages will benefit the sector's long time horizons: energy infrastructure built today will generate and distribute energy for many years, during which climate and nature-related risks will increase. This highlights the urgency to embed nature assessments into corporate strategies and investment decisions to ensure businesses are prepared to adapt to a changing environment and contribute to nature and climate recovery.^{viii} Figure 2: Typical nature-related impacts and dependencies of the energy system



Source: Adapted from Business for Nature, Sector Actions Towards a Nature-Positive Future (2023)

²The energy system includes everything involved in the production, conversion, storage, delivery and use of energy. The summary represented in this document considers direct operations and the supply chain of two sectors within the energy system – Oil & Gas, and Utilities



Examples of common risks in the energy system

Physical risks:

- Water-related risks: Companies' negative impact on water basins and watersheds (via direct operations or supply chain) may cause direct landscape alteration, habitat disruption and local fauna displacement. Such impacts can significantly change the waterscape, resulting in decreased quality and quantity of water in the long run. Companies impacting and depending on water may experience production disruptions as well as higher costs of water management and control.
- Climate change risks: Increased frequency, severity, unpredictability and magnitude of extreme weather events might damage company infrastructure and interrupt plant activity (e.g., during storms, floods, heat waves and droughts). They might also reduce the productivity of renewable energy plants (such as solar, wind and hydro).

Transitional risks:

- Policy: Changes to existing regulations or new regulations aimed at achieving nature positive outcomes and energy transition targets in jurisdictions, requiring adaptations to production and operation methods.
- Market: Volatility or higher costs of materials due to increased competition or scarcity (e.g., increased prices of raw materials resulting in additional revenue or increased costs depending on where the company is in the value chain).
- **Reputation:** Shift of consumer sentiment away from organizations/brands/products seen to have poor nature management leading to reduced demand for products, reduced supplier or customer loyalty, limited access to finance, or reduced talent attraction and retention.^{ix}

Learn more in detail about DIROs for the energy system: Roadmap to Nature Positive: Foundations for the energy system Dependencies & impacts (p. 14-19) Risks & opportunities (p. 20-26)

Additionally, see here **12** sector-specific overviews³ that outline the key dependencies and impacts on nature and biodiversity and set out the priority actions that businesses in each sector should take now to credibly contribute to a nature-positive future.

³ Produced by Business for Nature, WBCSD and WEF.

1.3. Understanding what is material – a key step for a credible strategy to address nature loss

ACT-D approach

To coordinate business efforts and to have a consistent approach to accelerate nature action, leading organizations⁴ developed the high-level business actions on nature, also known as **ACT-D framework**. ACT-D framework builds on existing action frameworks and guidance and guides businesses through the various tools, frameworks and initiatives to support in assessing their relationships with nature, committing to goals and target setting, transforming their direct operations and beyond, and disclosing nature-related information.

Assess:

Measure, value and prioritize your impacts and dependencies on nature to ensure you are acting on the most material ones.

Commit:

Set transparent, time-bound, specific, scienceinformed/based targets to put your company on the right track towards operating within the Earth's limits.

Transform:

Avoid and reduce negative impacts, restore and regenerate, collaborate across land and seascapes, shift business strategy and models, and advocate for policy ambition.

Disclose:

Track performance and prepare to publicly report material nature-related information throughout your journey.^{\times}





Source: Business for Nature (2022)

Implementation of the ACT-D approach will be different in each company, based on their maturity on nature. To explore more in detail how it looks like for different levels of maturity, see **Roadmaps to Nature Positive: Foundations for all businesses** maturity tables for the high-level actions (p. 47-53)

⁴ Capitals Coalition, Business for Nature, WBCSD, TNFD, Science Based Targets Network, WEF and WWF

Assess step – importance of identifying and assessing nature-related issues

Understanding material nature-related dependencies, impacts, risks and opportunities is at the heart of an impactful nature journey as it enables a business to further identify priority nature issues in their operations and value chains that should be addressed through targets and actions.⁵ Furthermore, evaluating risks and taking advantage of available opportunities enables a company to stay ahead of emerging issues that could impact the future success of the organization and enhance stakeholder engagement.

Assess step involves identifying:

- where to focus, both within the value chain and geographically
- what to focus on, both nature-related dependencies and impacts
- why these focus areas and topics matter for the organization and stakeholders in terms of risks and opportunities

For more details on Assess step and company experience, see **page 13**.

Importantly, the **EU Corporate Sustainability Reporting Directive (CSRD)**, which is mandatory for around 50,000 companies within the EU and many more worldwide with subsidiary businesses in Europe, prescribes a double materiality approach to reporting.^{xi}



Double materiality means that organizations need to identify which sustainability matters (including naturerelated issues) are most material to the organization and its stakeholders by evaluating their impact on environmental and social factors (impact materiality), while also considering how these factors influence the organization and create financial risks (financial materiality).^{xii}

Tools as Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE)^{xiii} and the Science Based Targets Network (SBTN) Materiality Screening Tool⁴ can be used as the first step to understand potential nature-related impacts and dependencies linked to economic activities.

Furthermore, using guidance from SBTN, TNFD's LEAP approach, The Natural Capital Protocol and WBCSD's Roadmaps to Nature Positive can support with further process of assessing and acting on nature-related issues.

⁵ SBTN Materiality Screening Tool is based on ENCORE knowledge database

2. Business practice in the energy system Examples of a strategic approach on nature through the lens of the ACT-D framework

2. Business practice in the energy system

Examples of a strategic approach on nature through the lens of the ACT-D framework

This section highlights practical examples of how three energy companies are undertaking their nature journey, framed around the steps of ACT-D framework. **The emphasis is on the Assess** step and in particular the **identification and assessment of nature-related issues**, as a critical step, with additional contextual information on Commit, Transform and Disclose to illustrate the interconnectedness of the steps.

As there is no 'one-size-fits-all' approach and the case studies are specific to the context of the respective companies, they are included to inform and inspire action in other companies. The examples are drawn from more detailed individual case studies of CLP, Equinor and Iberdrola⁶ and further modified together with the companies for the purpose of this document.





Iberdrola

Sector: Utilities

Value chain: Electricity and green energy generation, transmission, distribution and storage of electricity, electricity and gas retail and green energy products



Equinor

Sector: Oil and gas, renewables, low-carbon solutions

Value chain: Energy producer

CLP 中電

CLP

Sector: Utilities

Value chain: Power generation, transmission and distribution, energy retail and other energy services



⁶ Roadmap to Nature Positive: Examples from the energy industry (WBCSD, 2024)

2.1. Why energy companies are taking action on nature

Common insights from the case studies on reasoning behind taking action

- Compliance and alignment with global goals: Companies recognize compliance with global, regional and national requirements which motivates them to take further actions. However, they also acknowledge the need and benefits of going beyond mere compliance towards the societal demand for businesses to contribute to nature positive.
- Risk management is a key driver in ensuring the resilience of transition plans against short-, medium-, and long-term risks. It is crucial to understand and define these risks and opportunities early in the process through analysis of impacts and dependencies.
- Response to investor and stakeholder interest: A growing number of institutional investors are considering businesses' performance on nature in stewardship policies and capital allocation decisions.
- Internal improvements for competitive advantage: Companies recognize the competitive advantage gained from strong performance towards nature positive



Iberdrola's rationale

Commitment to environmental protection and the Sustainable Development Goals (SDGs): Iberdrola embraces the United Nations **SDGs** as part of its business strategy and corporate governance system. Iberdrola contributes directly to SDGs 6, 7, 9, 13, 15, 17, and indirectly to the rest. Iberdrola is **committed** to the **Paris Agreement** and the Kunming-Montreal Global Biodiversity Framework **(GBF)** and established a nature roadmap to align its strategy and objectives with these global goals.

Resilience of its transition plan: The company is determined to develop a transition plan that is resilient to short-, medium- and long-term risks.

Leadership and competitiveness in the business-nature space: Iberdrola believes that mitigating nature-related risks increases a company's resilience by reducing unexpected long-term costs and augments economic and market competitiveness as it is a direct answer to stakeholder demands.



equinor

Equinor's rationale

Increased awareness and positioning within the global nature context: Equinor announced its biodiversity position in 2021 as a response to the IPBES Global Assessment Report (2019)

Role of the transition plan and collaboration: Equinor's approach to nature is anchored in its Energy Transition Plan, stating that a successful energy transition can be achieved only in collaboration with workers and communities and with respect for nature.

Compliance with EU and national requirements and a response to the widespread **societal call for nature-positive businesses.**

Improvement in its internal risk management and policies and increasing competitive advantage stemming from a strong naturepositive performance.

CLP 中電

CLP's rationale

Nature beyond compliance: CLP wishes to gain a more systemic and global perspective on how its activities affect biodiversity, beyond compliance with existing environmental regulations.

360-degree understanding: CLP wants to develop a systemic management approach that considers its dependencies and impacts and ultimately covers its value chain. In doing so, the Group wants to acquire a more thorough understanding of the relationship between nature and business and to identify nature-related risks and opportunities early on.

Investor interest: The Group recognizes that a growing number of global investors are showing interest in how businesses are integrating nature into corporate strategy. Hence, CLP is enhancing its approach to nature to facilitate its response to investor and stakeholder interests.



2.2. Strategic approach: Step 1 – Assess

This section describes how the companies have assessed and are continuing to deepen their assessment of dependencies, impacts, risks and opportunities (DIROs). Commonly used approaches for organizations looking to identify and assess their nature-related issues as part of the Assess step are the *TNFD LEAP approach* and *SBTN* step 1a and 1b, as also summarized and presented in the *Roadmaps to Nature Positive: Foundations for all businesses*:

- Scope and Locate to identify the company's main sectors and sub-sectors and key parts of the value chain and their location.
- Evaluate dependencies and impacts to prioritize potentially high impacts and dependencies on nature typical for the business and associated value chains for further assessment.
- Assess risks and opportunities to identify risks and opportunities for the business and stakeholders and prioritize further action.

Common insights from the case studies on Assess step

Iterative process on identifying and assessing nature-related issues: Materiality should be approached as an iterative process involving scoping, locating, and assessing. This iterative approach is necessary as it often uncovers detailed information that requires continuous refinement.

Enhancing data quality through collaboration and technology: Collaborative efforts, such as research programs, are vital for obtaining high-quality data. These initiatives can help to fill knowledge gaps and improve the accuracy of assessments. Additionally, digital solutions for storing and accessing biodiversity data associated with company activities can increase effectiveness and quality of the analysis.

Significance of stakeholder engagement: Stakeholder engagement plays a crucial role in understanding business impacts, pinpointing affected areas, and identifying the biodiversity features most impacted.

Tools used by case study companies in the Assess step:

- Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE) and STBN Materiality Screening Tool – to identify potential impacts and dependencies, validated in combination of regional sector assessments and internal experts to reflect the reality of the company's activities
- World Database on Protected Areas (WDPA), Key Biodiversity Areas (KBA), IUCN Red List of Threatened Species, Integrated Biodiversity Assessment Tool (IBAT), World Wildlife Fund (WWF) Biodiversity Risk Filter – to identify sensitive locations and biodiversity hotspots
- World Resources Institute (WRI) Aqueduct Water Risk Atlas, WWF Water Risk Filter to identify water risk areas
- TNFD recommendations to understand nature-related risks and opportunities

Note: The following case study examples are structured around the above mentioned sub-steps and are illustrative in nature and not intended to represent full implementation of the different assessment frameworks.

High-level Business Actions

on Nature





Iberdrola's approach on Assess

Scope assessment and potential relationship with nature⁷

Iberdrola develops and operates energy infrastructure in multiple locations in Europe, the Americas and Oceania and is expanding into Asia. The infrastructure includes wind, solar, hydropower, thermal, transmission and distribution networks and energy storage. The extent and variety of its operations has challenged Iberdrola in determining priorities when seeking to assess its naturerelated DIROs and, ultimately, setting commitments.

Scoping, locating and assessing materiality was an iterative process, as the process would often reveal detailed information that required additional assessments. Iberdrola identified material technologies (such as solar, wind onshore/offshore, hydro, etc.), activities and locations relevant for further in-depth materiality assessment on nature by:

- Mapping the current locations of facilities, assets and activities and considering its business strategy of doubling its renewable capacity by 2030;
- Identifying material impacts and dependencies from years of environmental impact assessments, monitoring programs, the company's corporate footprint and natural capital assessments;
- Identifying sensitive locations using publicly available datasets;
- Listing the sensitive locations and material impacts and dependencies by technology.

⁷ Iberdrola's Climate Action Plan already delivered a Task Force on Climate-related Financial Disclosures (TCFD) assessment. Therefore, it did not consider the impact related to greenhouse gases in this materiality assessment. Iberdrola evaluated the supply chain impacts, like the impact generated upstream from the use of mineral and non-mineral resources, through the Corporate Environmental Footprint since it could not apply any specific locations.

Evaluate impacts and dependencies

To assess its impacts and dependencies on nature, Iberdrola performed initial analysis of potential impacts and dependencies per technology following the approach indicated by the SBTN and TNFD LEAP approach. It used the ENCORE and SBTN Materiality Screening Tools in combination with the results from the Spanish Energy Sector Nature Capital Working Group assessment. Internal experts reviewed

the identified potential impacts and dependencies, classified according to ENCORE, to analyze and reflect the reality of the company's activities.

Key potential impacts and

dependencies: the analysis concluded that Iberdrola's potential most material impacts⁸ were those resulting from new project developments due to land-use change and from existing infrastructure due to interactions with species and water. Its potentially material dependencies are from resource use and regulation services. To better determine which mitigating and reducing actions Iberdrola could undertake, the company mapped material locations.

Drivers		Technologies						
	Sub-driver	Solar	Wind onshore	Wind offshore	Hydro	Combined Cycle and Cogeneration	Nuclear*	Networks
Land-/water-/sea- use change	Terrestrial ecosystem use							
	Freshwater ecosystem use							
	Marine ecosystem use							
Resource exploitation	Water				•			
	Other: provision services							
Invasive species and others	Biological alterations							
	Disturbances							
▲ New developments ■ Operations & Maintenance ● Both				Very	Low	Medium	High	Very High

Table 1: Iberdrola's potential impact matrix per technology and impact driver

Table 2: Iberdrola's potential dependencies matrix per technology and impact driver



*No new developments are considered

⁸Excluding climate change related impacts

Locate

Iberdrola mapped the locations of its facilities and identified priority locations (at a facility level) by combining material activities and sensitive areas. It identified sensitive locations by defining an area of influence and overlaying it with different global data sources, such as the World Database on Protected Areas (WDPA), Key Biodiversity Areas (KBAs), IUCN Red List of Threatened Species and Water Stress Areas (WSA) as defined by the World Resources Institute (WRI) Aqueduct Water Risk Atlas. The company then assessed the priority facilities with the scale and scope of their dependencies and impacts on nature. Iberdrola uses the following metrics⁹ based on the state of nature: the *ecosystem metric*¹⁰ and species index.ⁿ

- High priority locations are those whose impact metrics for an ecosystem or species exceed defined thresholds. These metrics allow lberdrola to set action plans for ecosystem restoration and species conservation. Iberdrola consolidates the results from these two metrics in its Biodiversity Accounting Framework at facility, business, country and Group level.
- When direct data is not available, the company estimates the metrics and identifies priority facilities qualitatively through heat maps using global datasets and estimated extent and likelihood.



⁹ Company's metrics to assess the state of nature from material impacts on ecosystems and species. Other metrics are calculated for water use and pollution impacts.

¹⁰ Ecosystem metric - measures the change in the ecosystem's condition and extent before and after the implementation of the facility in hectares equivalent. It assesses the condition of the ecosystem through indicators like land use, vegetation cover, presence of protected species, etc. The ecosystem metric applies to new developments.

¹¹ Species index - based on the number of specimens impacted and their protection category value. It is calculated for operating activities.

Assess risks and opportunities

Iberdrola assessed the material risks and opportunities based on the previously identified material dependencies and impacts following the TNFD recommendations. *Table 3* provides an example of risks associated with the impact drivers.

- The material impacts and dependencies were translated into risks and opportunities.
- The company reviewed and updated existing risk management control strategies.
- Iberdrola conducted a risk assessment by assessing each risk's severity (classified as high, medium and low), as determined by the intersection of their magnitude, likelihood and social impact. It then identified priority actions from the combination of the importance and level of control.

In the following steps, Iberdrola will select metrics to estimate the financial impact of each risk and opportunity at each location. Table 3: Examples of Iberdrola's nature-related risks associated with the impact drivers

Impact driver	Risk type	Risks associated	
Changes to ecosystem condition or extension	Physical risks	Rejection of new developments approval or increased mitigation/compensation mearures when locating the project in high value ecosystems	
	Transition liability/ market risks	Increased nature protection policies and/or finance requirements	
Changes to the supply of natural inputs	Physical risks	Reduction or interruption of production due to changes on resource availability	
	Transition reputational risks	Conflicts with stakeholders when locating new developments on provisioning services areas	
Disturbance factors and others	Physical risks	Reduction or interruption of production from impact on protected species increased cost on mitigation/ compensation measures	
	Transition liability risks	Increased nature protection policies and/or finance requirements	
	Transition technology risks	Technology adaptation	
	Market risks	Increased stakeholders demands	





Equinor's approach on Assess

Scope assessment and potential relationship with nature

Equinor has developed its understanding of its impacts on nature and material topics through a bottom-up approach following years of baseline studies, environmental risk and impact assessments and stakeholder engagement conducted in project planning phases, combined with research, surveys and monitoring programs in its operations.

In 2023, Equinor initiated work to explore the inclusion of a broader approach that relies more on global datasets to help define potentially material sites and priority locations for nature-related efforts. Following this, the company will look into the potential benefits of aligning these approaches into a single cohesive input for materiality assessments, a framework of risks and impacts, and a baseline for furthering its nature approach.

Locate; Evaluate impacts and dependencies

The company uses the information gathered from the aforementioned efforts to understand its potential contributions to pressures on biodiversity such as pollution, regular and uncontrolled discharges to sea or land and emissions to air, and the company's use of sea and land areas and related disturbances. The scoping activities have also helped in identifying issues that are mostly non-material for the company, such as freshwater use.

- Improving site-specific understanding: To provide a company-wide overview of key biodiversity features¹² at operational sites and the potential negative impacts of the company's activities, Equinor aggregates information in a Site-Specific Inventory of key biodiversity features. This data will support the identification of material sites/priority locations and potential actions.
- Implementing digital solutions: Equinor has also started working to improve its digital solutions related to storing, accessing and sharing the biodiversity data associated with its activities.

¹²Key biodiversity features as defined in the internal methodology include but are not limited to: World Database on Protected Areas (WDPA) and International Union for Conservation of Nature (IUCN) definitions of Protected Areas and Key Biodiversity Areas (KBA), including their designating features, threatened native species or other native species of particular importance overlapping the area of interest and their habitats, and ecosystems of particular importance.



In parallel, Equinor has begun working on defining potentially material sites/priority locations by using publicly available data, such as **ENCORE**. The company will continue exploring how combining and supplementing asset-specific monitoring and impact studies with more global and public datasets can improve the process of identifying risks and opportunities relating to both existing and planned projects.

- Key potential impacts: Equinor's main potential direct impacts include pollution; regular and uncontrolled discharges to sea or land; and emissions to air. Use of land and sea areas may negatively impact biodiversity and ecosystems, for example through the footprint itself, through noise and impacts related to collisions with animals, barrier effects and other behavioral changes, and potential introduction of alien invasive species from maritime vessels. This is of particular importance if activities are in or near protected areas or areas of otherwise high biodiversity value. These pressures are in addition to the ubiquitous effects of climate change stemming from emissions to air. Equinor is also aware that it may indirectly put pressure on nature through the work of its partners and suppliers, especially where activities require large quantities of materials like metals, cement, and chemicals.
- Key potential dependencies: The company has identified certain potential dependencies on natural assets. For example, healthy oceans provide bioremediation services when offshore platforms discharge produced water containing minor fractions of oil and chemicals to sea.
 Access to natural resources such as wind, sun and hydrocarbons for the company's energy production can also be regarded as a dependency on nature. Equinor's main dependencies on natural assets, however, are the indirect ones resulting from the use of natural resources by suppliers and producers in its supply chain.



Project-specific impact assessment

The company has developed a net-positive impact (NPI) plan methodology, building on the **mitigation hierarchy** principles, and is currently in the process of applying it to projects in scope. The methodology will be an integral part of the project-specific impact assessment process and consists of six main steps.

- Step 1 (screen NPI potential): The company uses global datasets such as the World Database on Protected Areas (WDPA) and Key Biodiversity Areas (KBA), and national/local datasets to screen whether a given project site physically overlaps with protected areas or areas of high biodiversity value, which triggers the requirement to develop an NPI plan according to the Equinor's biodiversity position.
- Step 2 (identify key biodiversity features) and Step 3 (set project specific targets and metrics): Equinor leverages the impact assessment process to identify and prioritize key biodiversity features; each project in scope should develop specific targets and metrics based on this process.
- Step 4 (baseline data assessment): Assessing the need for (additional) baseline data and identifies and prioritizes NPI measures.

- Step 5 (identify relevant NPI measures; Prepare plan): An important step in the NPI process is identifying potential measures that can positively impact nature. Equinor recognizes that these opportunities are best identified in collaboration with others.
- Step 6 (implement and monitor): A projectspecific monitoring program shall be developed as the measures are put into action.

Assess risks and opportunities

Equinor's main material risks and opportunities include **transition risks** concerning the development of new policies and regulations; **reputational risks** related to performance; and **market risks** including access to acreage for development of new projects. A comprehensive nature agenda, however, also provides the company with important **opportunities**, including the potential competitive advantage of strong performance, as well as enhanced recruitment and retention of new talent.

CLP 中電



CLP's approach on Assess

Current practice to assess risks and opportunities

CLP's investment projects must undergo multidisciplinary review processes that include both financial and non-financial components. Non-financial considerations include legal, safety, security, social, climate change and environmental risks. These processes and assessments reduce business and reputational risks associated with a project and help guide stakeholder engagement.

To address environmental and climate-related risks, CLP applies the following environmental management and assessment processes across all phases of its project cycle:

- Pre-development: CLP identifies risks and liabilities for key environmental issues, including biodiversity and land contamination, through pre-investment Environmental Due Diligence (EDD). The EDD also applies a physical climate risk due diligence tool to identify and evaluate potential climate change impacts and proposes potential adaptation measures as part of the budget requirement for project execution.
- Design and construction: Environmental impact assessment (EIA) processes are in place for new projects, including those for which CLP has majority ownership or operational control, to ensure that they fulfill the statutory EIA requirements and recommendations stipulated by local regulators and

properly consider and address all environmental impacts with effective mitigation measures. CLP also has an internal Biodiversity Impact Assessment Guideline that provides a framework for qualified personnel to systematically assess biodiversity impacts, referencing relevant standards such as the **IUCN Red List of Threatened Species** and national conservation lists. The system flags any new operations that could affect the Red List and a country's national conservation list of threatened species well ahead of any investment decision.

Operation phase: CLP's Environmental Management System (EMS) ensures the identification of significant environmental aspects and assures the implementation and monitoring of actions to improve resource efficiency and environmental performance. For instance, all power generation assets over which CLP has operational control must achieve third party certification to International Organization for Standardization (ISO) standard 14001:2015 on Environmental management systems within two years following the commencement of operations or acquisition. The EMS also supports CLP in maintaining full compliance with applicable environmental laws and regulations in the jurisdictions in which it operates.

Scope the further assessment and locate

To complement existing environmental management processes and further its understanding of the relationship between operations and nature, CLP conducted a biodiversity-sensitive area analysis on all existing operational and asset sites. CLP used the following tools for the assessments:

- IBAT which uses data on biodiversity-sensitive areas and threatened species to determine nature-sensitive locations;
- ENCORE to assess potential Group-level impacts and dependencies;
- The WRI's Aqueduct Water Risk Atlas, which measures water-related impacts and dependencies.

The initial biodiversity-sensitive area analysis conducted will further support CLP in: locating and prioritizing nature-sensitive sites across its operations, evaluating Group-level potential impacts and dependencies, and assessing associated risks and opportunities. Ultimately, this will help CLP identify key areas of improvement in its current environmental management processes and explore possible material topics related to nature and biodiversity and plan nature-related strategies going forward.



2.3. Strategic approach: Steps 2 & 3 – Commit and Transform

Having completed the Assess step, companies have identified **priority dependencies, impacts, risks and opportunities which then inform their commitments** (Commit step) and **associated actions** (Transform step). This section illustrates how the companies are setting commitments as part of their nature-related strategy and implementing practical actions or starting to work towards that.^{xiv}

SBTN's Action Framework (AR3T) provides a key framework to inform an approach on nature by defining the hierarchy of actions that companies can put in place: Actions to avoid future impacts, reduce current impacts, regenerate and restore ecosystems, and transform the systems in which companies are embedded.^{xv}



Figure 5: SBTN's Action Framework (AR3T) as part of the Transform stage of ACT-D. Source: Business for Nature (2023)

Common insights from the case studies on Commit and Transform steps

Use of materiality assessments to inform strategy and actions is fundamental: Companies use or plan to use global datasets and materiality assessment conducted to inform their strategies and plans for nature-related efforts to ensure the focus is in the right direction.

Importance of having specific plans in place, such as the Biodiversity Plan and Net-Positive Impact (NPI) plans to achieve biodiversity and environmental goals and to stay accountable. **Mitigation hierarchy and nature positive approaches:** Companies emphasize the application of the mitigation hierarchy throughout their projects' life cycles that support to strategically reduce and manage naturerelated risks.

Collaboration and partnerships: Identifying potential opportunities to positively impact nature can be enhanced through collaboration, particularly with research institutions. These partnerships can aid in gaining a deeper understanding of how to specifically minimize the negative effects of operations while maximizing the positive ones, concentrating on the most significant material aspects identified.

K Iberdrola



Iberdrola's approach on Commit and Transform

Approach to commitment setting

To address the identified risks and opportunities, in 2022 Iberdrola launched its "2030 Biodiversity Plan". The plan:

- commits the company to having a net-positive impact on biodiversity by 2030;
- established the Biodiversity Accounting Framework (BAF) to systematically record and consolidate negative and positive impacts on ecosystems and species to assess the performance related to the plan's goals and targets.
 - Iberdrola applies its commitments at the facility level through the BAF and consolidates them to deliver country-wide and group-wide net impact assessments.
 - A facility is compliant with the plan once it assesses its impacts according to the BAF and develops a corresponding Biodiversity Action Plan (BAP) to achieve neutrality.

- sets intermediate compliance targets starting from 2025 for all new developments and 20% of generation operational facilities, reaching all activities from 2030.
- is part of the Iberdrola's Nature Positive roadmap together with the Climate Action Plan, that brings the company to net zero in 2024 and Circular Economy Plan, with targets in blade and panel recycling and 50% reduction of raw materials.

Example of an action on nature: implementing the mitigation hierarchy

The application of the mitigation and conservation hierarchy through the life cycle of the projects is fundamental to Iberdrola's ability to reduce and manage its nature-related risks. Thus, Iberdrola's Nature Positive Roadmap and management tools translate into specific actions to decrease the naturerelated impacts and dependencies of the company's business model. These plans align with the **GBF**.

As an example, the species index metric used to locate priority assets in the BAF applied to windfarms and networks in operation in Spain identifies target species for conservation that are common to both businesses. A Species Biodiversity Action Plan then focuses on those target species, implementing measures to mitigate the impact and promote conservation projects.

Learn about how Iberdrola applied its conservation mitigation hierarchy to avoid negative impacts and enhance biodiversity – The Nuñez de Balboa photovoltaic (PV) plant located in Extremadura (Spain) which covers an area of nearly 900 hectares with capacity of 500 MW can supply energy to 250,000 homes, **here**.







Equinor's approach on Commit and Transform

Approach to commitment setting

For decades, Equinor's 'no harm to the environment' ambition has guided their operations and stimulated innovation. In response to the identified impacts, risks and dependencies, the company is now further stepping up its nature journey. Equinor supports the global ambition of halting and reversing nature loss by 2030 through a series of priority actions and commitments outlined in their **biodiversity position**:

- Establishing voluntary exclusion zones: Not undertaking any industrial activity in (i) UNESCO World Heritage sites or (ii) areas classified under the International Union for Conservation of Nature (IUCN) "Strict Nature Reserve" or "Wilderness Area" categories as listed on 1st January 2021. If the company is considering activities in the buffer zone or adjacent to a World Heritage site, the company will consult with UNESCO.
 - **Developing a net-positive approach:** Map and report potential significant biodiversity impacts and dependencies; establish sitespecific inventory of important biodiversity features for existing sites and consider additional conservation measures; from 2023, require new development projects located in protected (or

high biodiversity value) areas to develop a plan with additional measures aiming to demonstrate net positive impact.

- Increasing knowledge and access to biodiversity
 data: Equinor participates in a wide range of
 research programmes and industry partnerships
 to further build knowledge and develop
 innovative solutions to protect biodiversity.
 The company supports the principle of sharing
 data from their impact assessments and
 environmental monitoring activities with the
 scientific community and the general public.
- Investing in nature-based solutions: Investing in natural climate solutions that meet robust environmental and social criteria. In countries where Equinor is present, the company will also actively look for opportunities to support local nature conservation and restoration initiatives as part of their community investments.
- Advocating for ambitious biodiversity policy: Equinor supports an ambitious post-2020 Global Biodiversity Framework, including the target of 30% land and sea being protected by 2030.

Example of an action on nature: collaboration for nature positive contributions

The company collaborates with several research institutions to better understand how to avoid or reduce its operations' adverse impacts and increase the positive ones. As a large offshore operator, Equinor has found that its main impacts and dependencies are connected to the marine environment. As a result, the company is partnering with several marineoriented institutions and projects, such as **Seatrack** and the **Norwegian Institute of Marine Research**. An impactful example of such collaborations is a promising restoration project in Hammerfest centered around kelp forests, one of the key biodiversity features that have been indentified in proximity to Equinor's assets there.

Learn about the company's experience with research initiatives to identify and mature nature positive contributions in the areas where it operates, **here**.



Equinor's Hammerfest artificial reef concept

CLP 中電



CLP's approach on Commit and Transform

Approach to commitment setting

CLP has a Group-level goal on "no net loss of biodiversity" and the company has a set of Groupwide short-term and long-term environmental targets covering air emissions, waste and water management. To drive continuous improvements and meet external stakeholder expectations, the Group tracks and reviews Group-wide environmental targets annually.

Example of an action on nature: improving the upcoming strategy and plans on nature

The biodiversity-sensitive area analysis will provide further insight into impacts and dependencies at nature-sensitive locations and assets across CLP's operations. The Group plans to use the results of this initial assessment to identify crucial nature-sensitive areas across its operations, where to strengthen risk management and how to explore potential material topics related to nature and biodiversity.

Moreover, the gaps identified can inform and establish the Group's upcoming strategy throughout its project cycle. This may include:

- Strengthening the EDD process with the application of IBAT;
- Applying its Biodiversity Impact Assessment Guideline in the pre-development phase of projects;
- Conducting asset-level TNFD LEAP assessments to identify site-specific impacts, dependencies, risks and opportunities, as well as associated metrics for priority sites; and
- Adopting the SBTN AR3T action framework to determine nature-related targets for no net loss or nature positive.

2.4. Strategic approach: Step 4 – Disclose

Nature-related disclosures help companies communicate about the actions they are taking and progress towards targets. The Disclose step of the ACT-D framework recommends that companies align reporting with major reporting standards and to seek out independent validation and verification to enhance credibility of actions. Disclosures will contribute to the achievement of **The Biodiversity Plan Target 15** and will increasingly be required by both voluntary and mandatory accountability mechanisms. This section highlights how the companies are currently disclosing and planning to disclose.

Common insights from the case studies on Disclose step

Companies work towards disclosing main impacts and dependencies on nature as well as commitments to and progress towards actions to halt and reverse nature loss, aligned with global frameworks such as SBTN (AR3T action framework) and TNFD guidance.

Companies measure and report according to global standards like: Global Reporting Initiative (GRI), International Sustainability Standards Board (ISSB), Sustainability Accounting Standards Board (SASB), European Union's Corporate Sustainability Reporting Directive (CSRD), European Sustainability Reporting Standards (ESRS), International Organization for Standardization (ISO) standard 14001 on Environmental Management Systems.



Disclose

High-level Business Actions

on Nature

Transform

K Iberdrola

Iberdrola's approach on Disclose

Iberdrola is reporting according to the: **GRI**, **CSRD**, **ESRS**, **ISSB**, **TCFD** and other relevant EU regulatory requirements.

Additionally:

The implementation of Iberdrola's Biodiversity strategy, as well as piloting the TNFD will help Iberdrola to comply with ESRS requirements. Iberdrola has been voluntarily publishing its Sustainability Report since 2004 and is now reporting according to mandatory standards in its Non-Financial Information Report.

equinor

Equinor's approach on Disclose

Equinor is now aiming to align with: CSRD requirements and assess how to best follow the recommendations of the TNFD. The company has conducted a thorough assessment of the gaps between the ESRS standards and its practices.

Additionally:

Each year, Equinor prepares an integrated annual report that includes a short status check on its nature-related activities for the reporting year. The report also includes double materiality assessments. The performance-related data available through Equinor's **Sustainability Data Hub** include information about operated assets in or near protected areas/areas of high biodiversity value and data on emissions to air and discharges to sea.

CLP 中電

CLP's approach on Disclose

CLP is measuring and reporting according to the: **GRI** and **SASB** Standards;

Additionally:

- Applying SBTN AR3T frameworks, as well as WBCSD's Roadmap to Nature Positive: Foundations for the energy system
- CLP continuously updates and improves its climate-related and nature-related disclosures through a yearly integrated
 Annual Report and Sustainability Report.
 The nature and biodiversity-sensitive area analysis CLP has recently undertaken aims to identify key areas of improvement between the Group's existing practices and the recommendations of the TNFD
 LEAP approach. This may support in developing short- and medium-term action plans to enhance current reporting practices for better transparency on nature and biodiversity risks as well as material opportunities to its business.

2.5. Key challenges and lessons learned

Several key challenges arose as shared across the case studies, reflecting companies' common obstacles or barriers to assess and act upon nature-related issues. Likewise, several actions that could overall materially improve a company's approach are included below as lessons learned.

Data needs and opportunities

Challenges

Data gaps: Public data sources cannot always provide accurate information at facility level to assess ecosystem conditions, thus, realtime, location-specific field data is necessary.

Translating and integrating data into analysis: Obtaining granular information from existing environmental databases, especially historical site-level monitoring and measurement data, as well as translating data on nature impacts and dependencies into financial value can be challenging. To thoroughly conduct this exercise, it is often required the support of not only ecologists to analyze ecological and geographical findings, but also of industry sector experts to evaluate the materiality of the identified impacts and dependencies for specific operational assets.

Lessons learned

Collaborative research programs with research institutions, governments and other industries could help fill knowledge gaps and improve assessments. Highquality, granular and up-to-date data comes from collaborating and sharing. Partnering with different entities to conduct research and making the collected data available can result in valuable insights. There is an importance and value of knowledge sharing and transparency with regard to geographical findings.

Value chain

Challenges

Oil and gas value chains are long and at times complex with many different stakeholders involved, which complicates access to data and the potential for collaboration.

Lessons learned

As the expectations for companies to take a value chain perspective continue to increase, promoting transparency and full understanding of the processes within the value chain will require collaboration.

Collaboration among departments within the organization and engagement with stakeholders across the value chain is crucial. Such collaboration enhances understanding of the naturerelated risks and opportunities, ensuring a holistic assessment. Additionally, it enables companies to address conflicting internal visions that may impede progress. Similarly, the stakeholders' engagement facilitates a sense of familiarity with and shared interest in the results of the assessment.

Frameworks and standardization

Challenges

Difficulties in navigating many emerging frameworks:

Navigating through the different recommendations, guidance and tools in the nature space is a challenge. Many tools, databases and frameworks are emerging, and it is important to keep the focus on measuring objectives, as it can be confusing while piloting diverse methodologies to understand the expected outcomes.

Lack of standardization:

Another hurdle lies in the lack of standardization in calculating biodiversity conditions, particularly for a company operating in several different geographies.

Marine metrics: Identification of relevant measures and indicators in the dynamic marine environment is often considered tricky. At the moment there are no global standards for positive contributions.

Lessons learned

Navigating many emerging frameworks: Resources such as WBCSD's "Roadmap to Nature Positive: Foundations for the energy system" which summarize key tools and guidance on nature and industry specific findings can help to see key concepts depicted in real examples.

If applying **TNFD LEAP** approach, it is essential to tailor the approach into the specific organizational context. It entails aligning metrics, terminologies, and internal frameworks according to the company's unique operations and value chain.

Simultaneously implementing the TCFD and TNFD frameworks allows organizations to make better-informed decisions as it allows companies to tackle climate and nature related risks and opportunities simultaneously and align their strategies accordingly.

Collaboration for marine metrics and alignment on methodologies for measuring marine-related nature loss are crucial, which can help create more credible, standardized approaches.

Viable business solutions

Challenges

Many initiatives to increase positive nature-related impacts can be costly, which may be an obstacle for implementation.

Having a comprehensive understanding of the trade offs of implementing a business solution can prove complex (e.g. wind power facilities can influence birds' migration paths).

Lessons learned

Making viable business cases for positive nature-related initiatives, also from a commercial perspective, is important for gaining organizational buy in and is beneficial for mitigating risks in the long term.

Reporting for reporting's sake has limited value. The focus should be on outcomes – to change behavior and take action.



Annex 1: Tools and databases

List of tools and databases recommended throughout the document and used by the case study companies.

Tools and databases	Description		
Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE)	A high-level screening tool that companies can use to aggregate and identify typical impacts and dependencies across different sectors and sub-sectors. ¹³		
SBTN Materiality Screening Tool	A tool that builds on ENCORE data to allow a more detailed assessment of impacts (but not as yet dependencies) across a combination of production processes.		
World Database on Protected Areas (WDPA)	Comprehensive global database of marine and terrestrial protected areas.		
Key Biodiversity Areas	Database supports the identification, mapping, monitoring and conservation of KBAs to help safeguard the most critical sites for nature – from rainforests to reefs, mountains to marshes, deserts to grasslands and to the deepest parts of the oceans.		
Integrated Biodiversity Assessment Tool (IBAT)	A web-based map and reporting tool that provides fast, easy and integration access to three of the world's most authoritative global biodiversity datasets: IUCN Red List of Threatened Species, World Database on Protected Areas, and World Database of Key Biodiversity Areas.		
WWF Biodiversity Risk Filter	A corporate and portfolio-level screening tool to identify biodiversity risks and prioritise corporate action on biodiversity.		
WWF Water Risk Filter	A corporate and portfolio-level screening tool to identify water risks and prioritise corporate action on water.		
World Resources Institute Aqueduct Water Risk Atlas	Open-source, peer reviewed data to map water risks such as floods, droughts and stress.		
IUCN Red List of Threatened Species	A critical indicator of the health of the world's biodiversity to inform and catalyze action for biodiversity conservation and policy change, critical to protecting the natural resources. It provides information about range, population size, habitat and ecology, use and/or trade, threats, and conservation actions that will help inform necessary conservation decisions.		

¹³ Companies that are presented in this document have applied 2018-2023 version of the ENCORE knowledge base

References

- Capital Coalition. (2024). Sustain Project. Retrieved from https://capitalscoalition.org/project/sustain-project/
- " World Economic Forum. (2020). New Nature Economy Report 2020. Retrieved from https://www3.weforum.org/docs/WEF_New_Nature_Economy_Report_2020.pdf
- BloombergNEF. (2023). Ten Case Studies Highlight the Financial Costs of Nature-related Risk. Retrieved from https://about.bnef.com/blog/ten-case-studies-highlightthe-financial-costs-of-nature-related-risk/
- ^{iv} Convention on Biological Diversity (CBD). (2022). Kunming-Montreal Global Biodiversity Framework. Retrieved from https://www.cbd.int/gbf
- V World Business Council for Sustainable Development (WBCSD). (2023). Roadmaps to Nature Positive: Foundations for all businesses. Retrieved from https://wbcsd.org/ resources/roadmaps-to-nature-positive-foundations-for-all-businesses/
- vi World Wide Fund for Nature (WWF). Climate, Nature and our 1.5°C Future. Retrieved from https://wwf.panda.org/discover/our_focus/climate_and_energy_practice/ climate_nature_future_report/
- vii Business for Nature. (2023). Energy. Retrieved from https://www.businessfornature.org/sector/energy
- viii World Business Council for Sustainable Development (WBCSD). (2023). Roadmap to Nature Positive: Foundations for the energy system. Retrieved from https://wbcsd. org/resources/roadmap-to-nature-positive-foundations-for-the-energy-system/
- ix World Business Council for Sustainable Development (WBCSD). (2023). Roadmap to Nature Positive: Foundations for the energy system
- * Business for Nature. High-level Business Actions on Nature. Retrieved from https://www.businessfornature.org/high-level-business-actions-on-nature
- ^{xi} European Commission. (2022). Sustainable finance. Retrieved from https://ec.europa.eu/newsroom/fisma/items/754701/en
- xii PricewaterhouseCoopers. (2024). Understanding the CSRD Double Materiality Assessment Process. Retrieved from https://www.pwc.com/mt/en/publications/ sustainability/understanding-the-csrd-double-materiality-assessment-process.html
- xiii ENCORE Partners (Global Canopy, UNEP FI, and UNEP-WCMC). (2024). ENCORE: Exploring Natural Capital Opportunities, Risks and Exposure. Cambridge, UK: the ENCORE Partners. Retrieved from: https://encorenature.org. DOI: https://doi.org/10.34892/dz3x-y059.
- xiv World Business Council for Sustainable Development (WBCSD). (2023). Roadmaps to Nature Positive: Foundations for all businesses
- xvii Science Based Targets Network. How it works: Act. Retrieved from https://sciencebasedtargetsnetwork.org/how-it-works/act/

Acknowledgements

Lead author:

Amanda Griniece, WBCSD

Contributing authors:

Nadine McCormick, *WBCSD* Eve Gleeson, *ShareAction*

With thanks to:

Isabel Tome Esteban, *Iberdrola* Filip Magnussen Sarfi, *Equinor CLP Holdings Limited* Diana Ferrari, *WBCSD* Julia Yap, *ERM* Impact House by *Grant Thornton Netherlands*

Design:

deborahripley.com

Funding



Co-funded by the European Union

Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union, the European Commission. Neither the European Union nor the granting authority can be held responsible for them.

Project funded by



UK Research

and Innovation

Federal Department of Economic Affairs Education and Research EAER State Secretariat for Education, Research and Innovation SERI The SUSTAIN project is funded by European Union's Horizon Europe research and innovation program under grant agreement No 101060320, the Swiss State Secretariat for Education, Research and Innovation (SERI), and UK Research and Innovation (UKRI) under the UK government's Horizon Europe funding guarantee 10075763, 10038461 and 10046192.

The project partner consortium is made up of the Capitals Coalition, UNEP-WCMC, Oxford Sustainable Finance Group, ETH Zürich, Fundación Biodiversidad, IUCN, IUCN Europe, PBL Netherlands Environmental Assessment Agency, ShareAction and WBCSD

