



Snapshot Report

# Current state of Environmental Reporting for the Renewables and Grid Sector

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**GINGR**  
Global Initiative for Nature,  
Grids and Renewables

THE  
**BIODIVERSITY**  
CONSULTANCY

## About GINGR

The Global Initiative for Nature, Grids and Renewables (GINGR) aims to support the just and sustainable energy transition by providing assessment tools to quantify contributions to Nature- and People-Positive goals. To facilitate this, GINGR intends to develop monitoring and reporting systems that are globally aligned and standardised.

GINGR is developing a comprehensive framework that allows actors within the energy system to report on progress towards biodiversity gains and co-created community benefits in the deployment of wind, solar and electricity grids. The GINGR Framework will support governments, the renewable energy industry, and the financial sector to achieve their energy, climate and biodiversity targets in a timely and socially responsible manner.

Through the efforts of several working groups with active participation from industry, NGOs, and academia, we plan to deliver robust and legitimate guidance and tools that support the final objective of a global framework in monitoring and reporting. Recognising the significant challenges posed by implementation, GINGR will also develop a technical assistance hub to provide guidance and support, as well as a repository of best practices and lessons learnt.

The collaborative work on the GINGR Framework will be complemented by a series of publications which aim to provide ready-made solutions for companies, governments, and the financial sector. These publications also have the potential to bring more stakeholders together to share experiences and data, as well as to improve and enhance biodiversity around renewables and grid infrastructure.

GINGR is a collaborative initiative of the International Union for Conservation of Nature (IUCN) and the Renewables Grid Initiative (RGI).

Find out more on [www.gingr.org](http://www.gingr.org).



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# Introduction

The renewables and grid sector is expanding rapidly as part of efforts to both mitigate the impacts of climate change and to support the economic development of emerging economies. This presents both a challenge and an opportunity for biodiversity and nature conservation. Renewable and grid projects range from small solar parks to large-scale offshore wind farms, resulting in a wide diversity of scales and associated environmental considerations. The sector frequently involves extensive linear infrastructure, such as transmission lines and subsea cables, which can fragment habitats and amplify ecological impacts. Offshore wind introduces a marine context, requiring careful management of seabed habitats, migratory species, and ecosystem connectivity. Importantly, impacts of renewables are often cumulative, particularly for offshore wind, yet current standards do not fully address cumulative effects, representing a notable gap in the reporting landscape.

As the sector evolves to meet global energy demands and help mitigate the effects of the current climate crisis, there is growing recognition that environmental reporting must not only align with regulatory requirements, but also drive meaningful, measurable improvements for nature. A growing number of frameworks and metrics have been developed with a view to enabling and tracking biodiversity net gain in the marine realm, with extensive indicator catalogues containing as many as 611 indicators, about half of which are operational and suitable for regulatory contexts.

This summary report provides selected insights into the current reporting landscape and identifies key gaps, with the aim of supporting the sector with the development of more robust, transparent, and nature-positive outcomes. It covers legal and voluntary reporting frameworks and standards—including the ways Multilateral Development Banks (MDBs) influence biodiversity-risk disclosures—and assessed their alignment with the GBF's Nature-Positive expectations. The landscape remains work in progress, and the Global Initiative for Nature, Grids and Renewables (GINGR) will continue to carry out work to advance progress across this area globally.



## Key Findings

- Existing regulatory frameworks and lenders standards primarily focus on the direct impacts of renewable energy and grid infrastructure on biodiversity and ecosystems, providing site-based safeguards to prevent and mitigate biodiversity loss across terrestrial and marine environments.
- Corporate reporting is evolving, with increasing focus on supply chain impacts and development of science-based targets—mostly through voluntary frameworks—to help companies track their performance against nature and biodiversity-related actions.
- Regionally, the EU's comprehensive suite of directives and reporting obligations provides a strong foundation for both compliance and transparency. This dense regulatory framework has driven a high degree of harmonisation, encouraging companies to integrate climate and biodiversity disclosures into their core business practices.
- Voluntary frameworks can supplement regulatory requirements in certain regions (e.g. Asia-Pacific and Latin America), enabling companies to demonstrate leadership or address gaps where national policies are less prescriptive. However, their adoption and impact can vary widely.
- MDBs and banks adopting the Equator Principles are shaping biodiversity disclosure practice, especially in non-OECD (Organisation for Economic Co-operation and Development) member countries, by embedding rigorous assessment standards, promoting transparency, and influencing emerging-market norms.
- Alignment across the frameworks and standards with GBF Nature-Positive ambitions is uneven. While there is good alignment with ecological targets (e.g. on spatial planning, ecosystem restoration), there is weaker alignment with other targets (e.g. those related to resource mobilisation, nature's contributions to people, species extinction risk, and invasive species).
- Industry insights through interviews with company and financial representatives highlighted the current reporting burden, data challenges (i.e., limited availability and/or poor quality), and inconsistent definitions of key concepts (i.e. no net loss, net gain, and Nature-Positive). There was broad consensus on the need for a sector-wide agreement on metrics and cumulative impact assessment (CIA), and standardised approaches to Nature-Positive reporting.



# Mapping of biodiversity and nature-related frameworks and standards

## Introduction

The sector is subject to a complex blend of at least thirty-two nature and biodiversity-related frameworks and standards, ranging from project-level regulatory and lending requirements through to Group-level disclosures. Of those reviewed, about one-third were European (i.e. EU, France, and UK), while the rest were global. In addition, seventeen were mandatory (either regulatory or contractual obligations), and fifteen were voluntary. Not one of these frameworks was aimed specifically at the renewables and grid sector, and all but one (Science Based Targets for Nature [SBTN] Ocean Targets, focusing on the seafood sector) were sector-agnostic.

Frameworks fell within six broad categories:

1. **Lender standards** (e.g. International Finance Corporation Performance Standard 6 [IFC PS6]) outlining contractual obligations for developers receiving finance from lenders. These provide project-level biodiversity safeguards based on key impacts and application of the standard mitigation hierarchy.
2. **Compliance frameworks** (e.g. EU Birds and Habitats Directives) that need to be followed by developers operating in the EU for project permitting. Like mitigation frameworks, they too provide project-level biodiversity safeguards by embedding mitigation-sequence requirements.
3. **Assessment and planning frameworks** implemented in the EU (the EU Environmental Impact Assessment [EIA] Directive for developers and the EU Strategic Environmental Assessment [SEA] Directive for member states) that integrate environmental considerations into decision-making by evaluating potential significant effects—and identifying appropriate mitigation measures.
4. **Reporting frameworks** which provide a framework for nature and biodiversity disclosures but do not specify biodiversity outcomes. These can be either regional (e.g. EU CSRD) or globally applicable frameworks (TNFD, Global Reporting Initiative 101: Biodiversity 2024 [GRI 101]), and may be mandatory, as in the case of CSRD, or voluntary, as in the case of TNFD.
5. **Target setting frameworks** that define measurable environmental or biodiversity objectives and guide actors—whether companies (e.g. SBTN) or Member States (EU Marine Strategy Framework Directive [MSFD])—toward achieving them.
6. **Corporate decision-making tools** (e.g. Natural Capital Protocol [NCP]) that provide frameworks for responsible business conduct across key areas.



## Coverage by environmental issue

### Key trends

Coverage by environmental framework varies greatly across five priority environmental topics for the renewables sector, as identified by GINGR – namely, marine biodiversity and seabed impacts, habitat fragmentation and species monitoring, supply chain environmental footprinting, emissions and net zero contributions, and construction and operational impacts. Overall, the frameworks primarily focus on direct impacts on biodiversity and ecosystems, while coverage of supply chain and indirect footprint—though still lagging—is beginning to increase across the reviewed landscape of standards.

Marine biodiversity and seabed impacts, habitat fragmentation and species monitoring, and construction and operational ecosystem impacts are the most consistently well-covered topics, particularly within regulatory and biodiversity-focused frameworks (e.g. EU MSFD, IFC PS6, EU Birds and Habitats Directive). Emissions and net zero contributions are primarily addressed through climate- and finance-focused frameworks (e.g. TCFD, EU Sustainable Finance Disclosures Regulation (EU SFDR)), with gaps elsewhere. In contrast, supply chain environmental footprinting is comprehensively covered by a small subset of frameworks (e.g. TNFD, GRI 101, EU CSRD).

### Framework-specific insights

The EU MSFD provides a good regulatory framework with which to assess the status of marine biodiversity. The EU MSFD sets ecosystem-based objectives for *Good Environmental Status*<sup>1</sup>, across marine waters, which Member States must implement through mechanisms including national marine plans and permitting processes. While companies do not report under MSFD, the rules and targets, to which offshore renewable developers must align, may be linked to MSFD. Many of the requirements for baseline surveys are monitoring and aligned with MSFD descriptors. The EU Birds Directive and EU Habitats Directives complement the MSFD by adding a species- and habitat-specific layer to MSFD's broader ecosystem-based approach. While MSFD aims for *Good Environmental Status* across all marine waters, the Habitats and Birds Directives ensure targeted protection for priority species and habitats, which strengthens biodiversity outcomes under MSFD. The Birds and Habitats Directives achieve this through a focus on maintaining and restoring habitats and species at favourable conservation status, introducing strong requirements for monitoring, maintaining connectivity, and preventing habitat fragmentation.

The IFC PS6 is a globally applicable and biome-agnostic standard requiring avoidance and minimisation of impacts and restoration of biodiversity, including seabed and critical habitats. In common with the EU Habitats Directive, IFC PS6 also covers habitat fragmentation and species monitoring. Specifically, IFC PS6 is the global benchmark for critical habitat

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<sup>1</sup> [https://environment.ec.europa.eu/topics/marine-environment\\_en](https://environment.ec.europa.eu/topics/marine-environment_en)



classification and critical habitat assessment, bringing in a requirement for monitoring through the incorporation of biodiversity monitoring and evaluation plans which emphasise the importance of landscape/seascape-level analysis. This means that projects must assess impacts beyond the immediate site, including marine connectivity and ecological processes. Specific monitoring processes and plans are tailored for different stages of the project life cycle.

From a voluntary perspective, TNFD's location-based disclosures and 'LEAP' approach are relevant for offshore wind farms and subsea cabling but are less prescriptive than EU MSFD or IFC PS6. Several voluntary reporting frameworks include upstream and downstream environmental impacts (e.g. TNFD, GRI 101), with more limited regulatory coverage (e.g. EU CSRD ESRS E4). TNFD recommends disclosure of upstream and downstream impacts, including biodiversity footprinting and traceability within supply chains (e.g. sourcing of materials, impacts from suppliers). GRI 101, released in 2024, was also designed to be interoperable with TNFD<sup>2</sup>, and therefore aligns with similar recommended disclosures. The EU's CSRD ESRS E4 is also informed by the TNFD<sup>3</sup>, and therefore covers upstream and downstream impacts. However, ESRS E4-aligned disclosures are only required if biodiversity is material through a company's CSRD-aligned double materiality assessment.

Emissions and net zero contributions are well covered across some of the existing regulatory and voluntary frameworks, including TCFD, SBTi, UK's SECR, and EU's CSRD-ESRS E1. TCFD represents the core global framework for climate governance, emissions reduction pathways, and net zero transition, having informed the IFRS S2 standard and CSRD ESRS E1 requirements to report on climate-related emissions and alignment with net zero goals. In addition, the UK's SECR mandates disclosure of energy use and greenhouse gas (GHG) emissions, supporting decarbonisation and net-zero strategies. Finally, SBTi focuses on setting and achieving science-based GHG reduction targets.

Direct construction and operational ecosystem impacts have longstanding regulatory and lender disclosure requirements, including the EU's EIA Directive and global financial lending requirements through multilateral development banks (e.g. Asian Development Bank's [ADB's] Environmental and Social Standard 6 [ESS6] and IFC's PS6). The EU EIA Directive requires assessment and mitigation of construction and operational impacts on marine and terrestrial ecosystems. The ADB ESS6 and IFC PS6 both require application of the mitigation hierarchy—avoid, minimise, restore, and, where necessary, offset biodiversity impacts—throughout the project lifecycle. Other frameworks like the TNFD outline risk assessments relevant to this topic but are less prescriptive. The EU's Strategic Environmental Assessment (SEA) Directive addresses environmental impacts early in strategic decision-making but does not directly regulate or assess project-level construction and operational impacts, which are covered through the EIA Directive.

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<sup>2</sup> <https://tnfd.global/publication/interoperability-mapping-between-the-gri-standards-and-the-tnfd-recommended-disclosures-and-metrics/>

<sup>3</sup> <https://tnfd.global/publication/tnfd-esrs-correspondence-mapping/>



**Current state of Environmental Reporting for the Renewables and Grid Sector**

**Table 1.** Overview of environmental topic coverage by each nature and biodiversity-related framework and standard linked to the renewables and grid sector (Yes = issue covered comprehensively, partially = issue covered partially, No = issue is not covered). Red boxes represent frameworks that have the greatest relative coverage of a topic (i.e. relative to the other frameworks reviewed).

Type	Use	Framework / Standard	Marine biodiversity	Habitats and species	Supply chain	Emissions	Construction and operation impacts
Mandatory	Compliance	EU Birds Directive	Yes	Yes	No	No	Partially
		EU Habitats Directive	Yes	Yes	No	No	Partially
		EU Marine Strategy Framework Directive (MSFD)	Yes	Yes	No	No	Yes
	Assessment	EU Environmental Impact Assessment (EIA) Directive	Yes	Partially	Partially	Yes	Yes
		EU Strategic Environmental Assessment (SEA) Directive	Yes	Partially	No	Partially	Yes
	Reporting	EU Corporate Sustainability Directive European Sustainability Reporting Standard 1 (Climate Change) - EU CSRD ESRS E1	No	No	Yes	Yes	No
		EU CSRD ESRS 4 (Biodiversity and ecosystems)	Yes	Yes	Yes	No	Yes
		EU Sustainable Finance Disclosures Regulation (SFDR)	Yes	Yes	Partially	Yes	Yes
		EU Taxonomy Regulation	Yes	Partially	Partially	Yes	Yes
		France Article 29	Partially	Partially	Yes	Yes	Yes
		Streamlined Energy and Carbon Reporting (SECR)	Partially	Partially	Partially	Yes	Partially
	Mitigation / Lender Requirements	Asian Development Bank Environmental and Social Standard 6 (Biodiversity Conservation and Sustainable Natural Resources Management) - ADB ESS6	Yes	Yes	Partially	No	Yes
		Environmental Investment Bank Environmental and Social Standard 4 (Biodiversity and Ecosystems) - EIB ESS4	Yes	Yes	Partially	No	Yes
		Environmental Investment Bank Environmental and Social Standard 5 (Climate Change) - EIB ESS5	No	No	No	Yes	No
		Equator Principles 4th Iteration (EP4)	Yes	Yes	No	Yes	Yes
		International Finance Corporation Performance Standard 6 (IFC PS6)	Yes	Yes	Partially	Partially	Yes
		World Bank Environmental and Social Framework Environmental and Social Standard 6 (World Bank ESF ESS6)	Yes	Yes	Partially	No	Yes



Current state of Environmental Reporting for the Renewables and Grid Sector

Type	Use	Framework / Standard	Marine biodiversity	Habitats and species	Supply chain	Emissions	Construction and operation impacts
Voluntary	Corporate Tools	Natural Capital Protocol	Yes	Yes	Yes	Yes	Yes
		OECD Guidelines on Multinational Enterprises on Responsible Business	Yes	Partially	Yes	Yes	Yes
	Reporting	Carbon Disclosure Project (CDP)	Partially	Partially	Yes	Yes	Partially
		Global Reporting Initiative (GRI) 101: Biodiversity 2024	Yes	Yes	Yes	No	Yes
		International Financial Reporting Standard (IFRS) S1	Partially	No	Partially	Partially	Partially
		International Financial Reporting Standard (IFRS) S2	Partially	No	Partially	Yes	Partially
		Task Force on Climate-related Financial Disclosures (TCFD)	No	No	Partially	Yes	No
		Taskforce on Nature-related Financial Disclosures (TNFD)	Yes	Yes	Yes	No	Yes
		UN Global Compact	Partially	Partially	Partially	Yes	Yes
	Target-setting	Science Based Targets Initiative (SBTi)	No	No	Partially	Yes	No
		Science Based Targets for Nature (SBTN) Freshwater	No	Partially	Partially	No	No
		SBTN Land	No	Yes	Partially	No	Yes
		SBTN Ocean	Partially	Partially	No	No	Partially
		SBTN Step 1	Partially	Partially	Yes	No	Yes
		SBTN Step 2	Yes	Yes	Yes	No	Yes



## What is good practice and what could be improved?

Table 2. Examples of good practices.

What is good practice?
<ul style="list-style-type: none"> <li>☑ <b>Materiality screening.</b> Double materiality screening—including both <i>impact materiality</i> and <i>financial materiality</i>—is a requirement in EU’s CSRD, recommended in TNFD, and partly considered in SBTN. While materiality is still an evolving concept, these efforts provide a good foundation.</li> <li>☑ <b>Supply chain coverage.</b> Companies are increasingly asked to assess and disclose impacts not just in direct operations, but also upstream (supply chain) and downstream (product use, end-of-life) (e.g. TNFD, EU’s CSRD ESRS E4, and GRI 101).</li> <li>☑ <b>Stakeholder engagement.</b> Engagement with indigenous peoples, local communities, and affected stakeholders is an expectation in some frameworks (TNFD, EIB standards, GRI 101), especially for projects with significant land or marine footprints.</li> <li>☑ <b>Offshore safeguards</b> are robust where EU law or lender standards apply. EU’s MSFD, the Habitats and Birds Directives and lenders standards (IFC PS6, Word Bank ESF ESS6, ADB EES6, EIB ESS Standards) collectively require location-specific assessment, stakeholder engagement, monitoring and, where necessary, net gain in critical habitat.</li> <li>☑ <b>Biodiversity outcomes.</b> IFC PS6 goes beyond the mitigation hierarchy by specifying clear requirements for biodiversity outcomes. It sets objective criteria and thresholds for prioritising biodiversity features, defines expectations for outcomes—including ‘no go’ cases, tolerable loss levels, and requirements for net gain or no-net-loss—and mandates monitoring of these outcomes.</li> </ul>

Table 3. Examples of possible improvements.

What could be improved?
<ul style="list-style-type: none"> <li>☒ <b>Emissions vs. biodiversity trade-offs.</b> Climate-only frameworks e.g. SBTi, IFRS S2, SECR and TCFD, do not prevent nature harm. Explicit integration as suggested by TNFD and EU’s CSRD (ESRS E1 and E4) is required to mitigate net-zero pathways that increase habitat loss or fragmentation.</li> <li>☒ <b>Carbon offsets.</b> Under SBTi, carbon offsets can only account for a small portion—up to 10%—of Scope 3 emissions in achieving net zero. Under SBTi, carbon offsets can only account for a small portion—up to 10%—of Scope 3 emissions in achieving net zero. This limitation poses significant challenges for companies striving to meet their net zero goals.</li> <li>☒ <b>Data availability.</b> Limited offshore biological data makes it difficult to accurately estimate impacts and/or state of nature (McQuatters-Gollop <i>et al.</i> 2022) which is relevant for three out of five topics (i.e. offshore impacts, supply chain footprinting, and construction impacts). However, this is not a framework limitation, and there is still sufficient information to conduct initial screening to identify locations of important ecosystems, noting gaps. Additional TNFD guidance on this topic is likely to follow in the future<sup>4</sup>.</li> <li>☒ <b>Target setting.</b> Marine coverage in SBTN Step 1 (v1.1)<sup>5</sup>, is still maturing. While SBTN Step 3 ocean targets are currently fisheries-focused, some of these targets could be relevant for offshore wind (e.g. target 2 on protecting structural habitats <sup>6</sup>). Future updates are pending.</li> <li>☒ <b>‘No net loss’ and ‘net gain’ definitions.</b> Lender standards typically require application of the mitigation hierarchy (avoid, minimise, restore, offset); definitions and measurement of no net loss or net gain vary.</li> <li>☒ The reviewed frameworks provide limited guidance or requirements on <b>strategic environmental assessment (SEA) and on CIA</b>. For example, even though the scope of IFC PS6 should consider a CIA in the area of influence of the</li> </ul>

<sup>4</sup> <https://tnfd.global/publication/discussion-paper-on-measurement-of-ocean-related-issues/>

<sup>5</sup> <https://sciencebasedtargetsnetwork.org/wp-content/uploads/2024/07/Technical-Guidance-2024-Step1-Assess-v1-1.pdf>

<sup>6</sup> <https://sciencebasedtargetsnetwork.org/wp-content/uploads/2025/03/Technical-Guidance-2025-Step3-Ocean-v1.pdf>



What could be improved?

project (as specified by IFC PS1<sup>7</sup>), PS6 guidance is limited and does not include thresholds or sector requirements that require CIA.

- ☒ **Biodiversity offsets.** In IFC PS6, offsets are a last resort and must be “like-for-like or better”<sup>8</sup>, but there is inconsistency in how offsets are designed and monitored across regions and sectors.
- ☒ **Biodiversity outcomes.** Frameworks like CSRD, GRI 101, and TNFD provide structured disclosure approaches but do not specify objective thresholds or required outcomes. They leave the definition of ‘what good looks like’ to the reporting entity. CDP offers ambition guidance and a scoring mechanism, but this focuses on actions rather than outcomes. SBTN sets clear expectations for some pressures (e.g. land conversion; freshwater pollution; overfishing) but does not comprehensively address biodiversity outcomes relevant to renewables.

## Observations on Framework interoperability

There is growing interoperability across frameworks, with several serving as the core foundations (see Table 2). These offer a ‘menu’ of frameworks that could provide robust foundations for specific topics within a future reporting framework tailored for renewables, supplemented by additional disclosures to address priority gaps.

**Table 4.** Frameworks alignment and complementarity between selected nature and biodiversity frameworks. The below presentation does not reflect how companies use frameworks to cover their reporting requirements.

Purpose	Core framework	Interoperable frameworks
Project-level reporting	IFC PS6	<ul style="list-style-type: none"> <li>• <b>Equator Principles</b> (directly references IFC PS6 as example environmental standards to follow under Principle 3<sup>9</sup>)</li> <li>• <b>World Bank ESF ESS6</b> (close alignment overall<sup>10</sup>, although ESS6’s guidance note is much less prescriptive than IFC PS6’s, especially for thresholds)</li> <li>• <b>ADB ESS6</b> (strongly influenced by IFC PS6)</li> </ul>
Corporate-level reporting	TNFD	<ul style="list-style-type: none"> <li>• <b>EU’s CSRD ESRS E4</b> (explicitly references the TNFD LEAP approach as a compatible method<sup>11</sup>)</li> <li>• <b>SBTN</b> (materiality screening tool, SBTN AR3T framework, setting targets during the Prepare phase<sup>12</sup>)</li> <li>• <b>GRI 101</b> (clear alignment of indicators<sup>13</sup>)</li> </ul>
	TCFD	<ul style="list-style-type: none"> <li>• <b>EU’s CSRD ESRS E1</b> (structured around TCFD governance, strategy, risk, metrics)</li> <li>• <b>IFRS S2</b> (TCFD became the foundation for IFRS S2 climate disclosures<sup>14</sup>)</li> </ul>

<sup>7</sup> <https://www.ifc.org/content/dam/ifc/doc/2010/2012-ifc-performance-standards-guidance-note-en.pdf>

<sup>8</sup> <https://www.ifc.org/content/dam/ifc/doc/2010/20190627-ifc-ps-guidance-note-6-en.pdf>

<sup>9</sup> [https://equator-principles.com/app/uploads/The-Equator-Principles\\_EP4\\_July2020.pdf](https://equator-principles.com/app/uploads/The-Equator-Principles_EP4_July2020.pdf)

<sup>10</sup> <https://thedocs.worldbank.org/en/doc/429461515522112627-0290022018/render/ESFGuidanceNoteCommentsonESS1ESS6byIUCNBiodiversityGroupDec222017.pdf>

<sup>11</sup> <https://tnfd.global/publication/tnfd-esrs-correspondence-mapping/>

<sup>12</sup> [https://tnfd.global/wp-content/uploads/2023/08/Guidance\\_on\\_the\\_identification\\_and\\_assessment\\_of\\_nature-related\\_issues\\_The\\_TNFD\\_LEAP\\_approach\\_V1.1\\_October2023.pdf](https://tnfd.global/wp-content/uploads/2023/08/Guidance_on_the_identification_and_assessment_of_nature-related_issues_The_TNFD_LEAP_approach_V1.1_October2023.pdf)

<sup>13</sup> <https://tnfd.global/publication/interoperability-mapping-between-the-gri-standards-and-the-tnfd-recommended-disclosures-and-metrics/>

<sup>14</sup> <https://www.ifrs.org/sustainability/tcfd/>



Purpose	Core framework	Interoperable frameworks
		<ul style="list-style-type: none"> <li>• <b>UK's SECR</b> (climate reporting draws from TCFD<sup>15</sup>)</li> <li>• <b>Equator Principles</b> (material climate risk assessment based on TCFD)</li> </ul>
	<b>GRI 101</b>	<ul style="list-style-type: none"> <li>• <b>TNFD</b> (clear alignment of indicators)</li> <li>• <b>CSRD ESRS E4</b> (high alignment on disclosures<sup>16</sup>)</li> <li>• <b>IFC PS6</b> (recognises its approach to habitats and species)</li> </ul>
<b>Target setting</b>	<b>SBTi</b>	<ul style="list-style-type: none"> <li>• <b>EU's CSRD ESRS E1</b> for target-setting</li> </ul>
	<b>SBTN</b>	<ul style="list-style-type: none"> <li>• <b>GRI 101</b> (complementary target setting) – <i>Note: SBTN not yet well suited to mineral-based supply chains.</i></li> </ul>

## Observations on Regional Trends

The global landscape of biodiversity and nature-related reporting in the renewables and grid sector is shaped by regulatory and voluntary frameworks that vary by region. This is very apparent in Europe, where the EU's comprehensive suite of directives and reporting obligations—such as the CSRD, SFDR, Birds and Habitats Directives, and MSFD—establishes a robust foundation for both compliance and transparency. This regulatory density has driven a high degree of harmonisation, compelling companies to integrate climate and biodiversity disclosures into their core business practices.

In contrast, regions outside the EU often rely on international lender standards, such as IFC PS6 and the World Bank's ESF ESS6, as de facto benchmarks—especially in Asia-Pacific, Latin America and Africa—where access to development finance is a key driver and domestic regulation may be less developed. These standards not only shape project design and disclosure but also help raise the global baseline for biodiversity risk management (see also section 2.3). However, in a competitive lending environment, it is important that these standards are not seen to place an undue burden on developers, as this would make other lenders, with less stringent standards in relation to biodiversity reporting and management more attractive.

Voluntary frameworks, including TNFD, SBTN, GRI 101, and others, play a critical role in supplementing regulatory requirements, especially in Asia-Pacific and Latin America<sup>17</sup>, and enable companies to demonstrate leadership or fill gaps where national policies are less prescriptive. However, the adoption and impact of these frameworks can vary widely<sup>18</sup>, reflecting differences in market maturity, policy priorities, and technical capacity.

<sup>15</sup> <https://assets.publishing.service.gov.uk/media/67161e8696def6d27a4c9ab3/environmental-reporting-guidance-secr-march-2019.pdf>

<sup>16</sup> <https://www.globalreporting.org/media/qzmoeixv/esrs-gri-interoperability-index-november-2024.pdf>

<sup>17</sup> <https://www.globalreporting.org/news/news-center/sustainability-disclosure-still-driven-by-voluntary-policies/>

<sup>18</sup> [https://tnfd.global/engage/tnfd-adopters-list/?\\_sft\\_sector=rr-1](https://tnfd.global/engage/tnfd-adopters-list/?_sft_sector=rr-1)



## Observations on Lender Standards

The report considered two categories of lender standards: the Equator Principles (a voluntary financial industry benchmark applied by 130 financial institutions) and the standards of representative multilateral development banks (MDBs) (i.e. the IFC, World Bank, ADB, EIB). These standards both focus on the assessment and management of environmental and social risk, including biodiversity and/or nature, in project finance. These standards typically require rigorous project-level risk management, including critical habitat assessments, application of the mitigation hierarchy (avoid, minimise, restore, offset), and long-term biodiversity monitoring. Public disclosure under these standards varies, with detailed biodiversity reports submitted to lenders and more limited summaries made available to the public. By setting high expectations for biodiversity safeguards and transparency, MDB lender standards shape global leading practices and often influence national regulations and corporate reporting frameworks in both developed and emerging economies.

Financial institutions can shape biodiversity risk disclosure in the following ways:

- **Creating the evidence base for disclosure.** Development banks have made detailed biodiversity assessments standard practice. Projects now routinely produce critical habitat assessments, biodiversity action plans, and long-term monitoring programs. These documents, originally prepared for lenders, often become the foundation for corporate reporting frameworks such as TNFD, providing essential data on locations, sensitivities, and mitigation actions.
- **Building transparency into finance.** The Equator Principles require independent reviews and monitoring and encourage sharing biodiversity data through platforms like the Global Biodiversity Information Facility. This has introduced a culture of openness, where species records and project summaries are more accessible. Similarly, European lenders such as the EIB promote publication of project documentation and stakeholder engagement, making biodiversity information easier to find.
- **Shaping market practice in emerging economies.** In many developing countries, financing from MDBs sets the biodiversity standard. For example, projects in Mozambique must follow strict biodiversity requirements that are consistent with IFC PS6 requirements<sup>19</sup>, which later influence disclosure norms. Moreover, South Africa's wind and solar permitting framework evolved now mandates biodiversity sensitivity mapping and mitigation measures for wind and solar projects, reflecting ESS6 principles. Finally, some banks also publish sector roadmaps, such as offshore wind guidance in Azerbaijan<sup>20</sup>, which include early biodiversity sensitivity mapping—effectively pre-disclosing risks. However, they can increase burden for developers when there is misalignment with national / regional frameworks (e.g. EU frameworks).

<sup>19</sup> <https://www.afdb.org/en/news-and-events/press-releases/mozambique-african-development-bank-approves-54-million-loan-mozambiques-first-wind-energy-project-76208>

<sup>20</sup> <https://www.carbontrust.com/news-and-insights/news/azerbaijan-offshore-wind-ambition-has-potential-to-drive-diversification-and-capture-regional-industrial-wins>



## Current state of Environmental Reporting for the Renewables and Grid Sector

- **Links to other frameworks.** Many MDBs and Equator Principles Financial Institutions (EPFIs)—banks and other financial institutions that have formally adopted the Equator Principles—require climate risk assessment aligned with TCFD for high-emitting projects. Equator Principles explicitly integrates climate risk analysis like TCFD. Adoption is emerging but not yet mandatory. Some lenders encourage alignment with TNFD principles or science-based targets for nature through SBTN, but these are mostly voluntary or part of ESG covenants rather than hard requirements. Overall, climate is much higher on the agenda compared to nature.

Lenders differ in how strongly biodiversity assessments influence their lending decisions, but in general these assessments can materially affect project eligibility—especially outside the EU, where regulatory baselines are more variable. In the EU, some MDBs such as the EIB typically rely on compliance with established regulatory instruments—most notably the EIA Directive—which broadly aligns with their own environmental safeguards (EIB Environmental and Social Standards).

In contrast, other lenders such as the IFC place greater emphasis on meeting their Performance Standards, including PS6 on Biodiversity Conservation, and may hesitate to rely solely on domestic EIAs for non-EU projects because doing so could create perceptions of double standards if requirements differ substantially from those applied in Europe. This difference in approach explains why some non-EU projects seeking EU-linked or MDB financing have been rejected based on insufficient biodiversity risk assessment, while conversely many project sponsors voluntarily align with IFC PS6—even in jurisdictions where this is not mandated—to smooth future access to concessional or blended finance. Across these contexts, development-finance institutions often offer more favourable terms (longer tenors, lower margins, risk-sharing instruments) than commercial lenders, which makes adherence to stricter biodiversity requirements attractive for sponsors.



# Alignment with global Nature-Positive ambitions

Mapping of current reporting frameworks against global Nature-Positive ambitions reveals a landscape with clear momentum toward integrating biodiversity considerations into business decision-making, with many frameworks now explicitly referencing the GBF as a guiding standard (e.g. EU CSRD, GRI 101, TNFD) (Figure 1). Notably, requirements around business disclosure and governance—such as those captured in GBF Targets 14 and 15—are among those most frequently and directly addressed.

At the same time, ecological targets—such as those focused on spatial planning, ecosystem restoration, and pollution reduction—are increasingly considered through leading voluntary frameworks like TNFD and GRI 101 and mandatory reporting through CSRD. These frameworks recommend that companies assess, manage, and disclose their impacts on nature, particularly in areas where regulatory expectations are evolving rapidly. However, the approaches taken vary, and the frameworks provide flexibility – particularly for topics not deemed material.

The analysis also highlights important gaps. While some targets are well covered, others, such as those related to resource mobilisation, nature’s contributions to people, species extinction risk and invasive species, receive less attention. Alignment with these targets is often indirect, emerging as a secondary outcome of broader environmental management requirements rather than as a core focus. GBF targets pertaining to agriculture or biosafety are not directly relevant to the renewables and grid sector and are not considered here.



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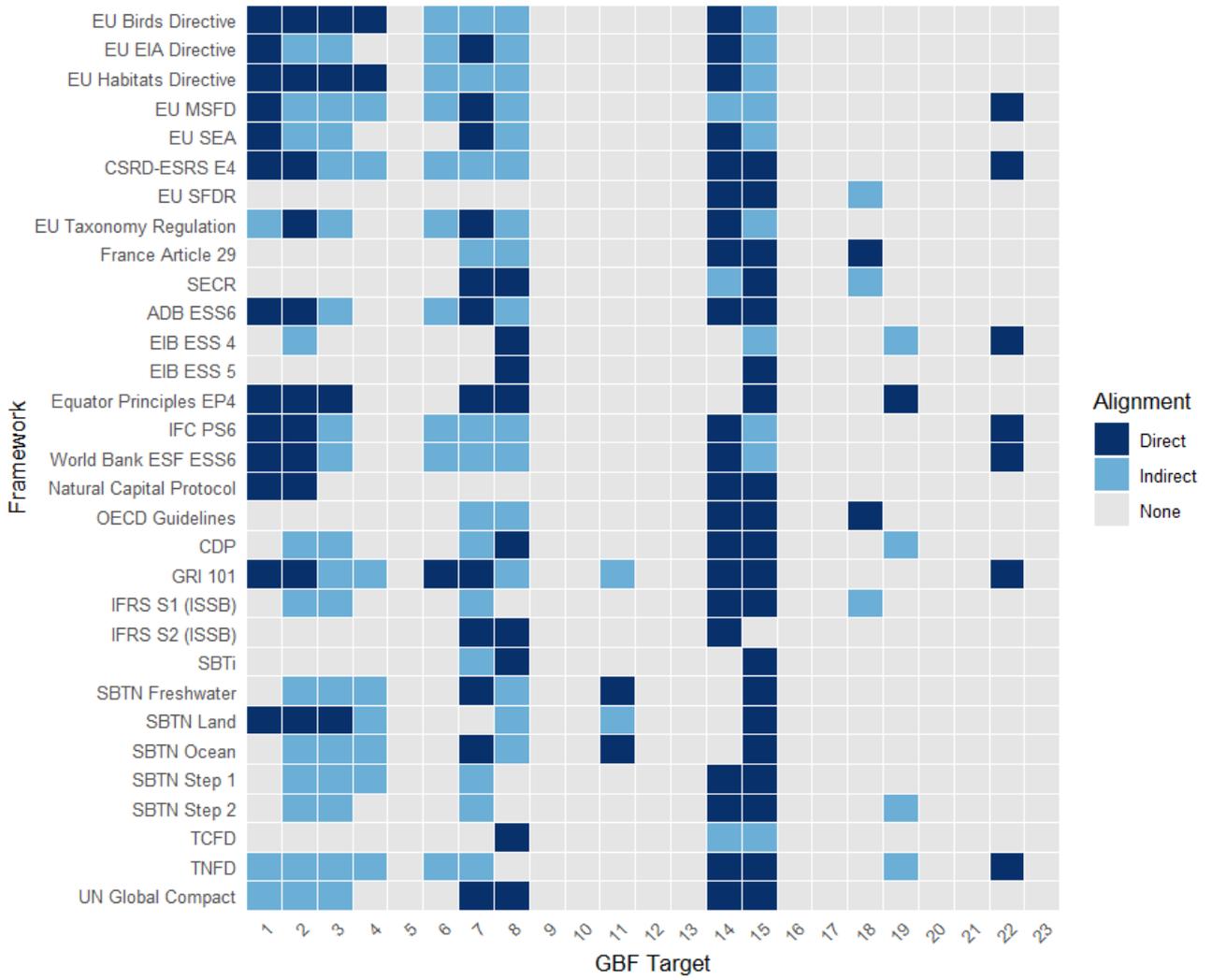


Figure 1. Alignment of GBF targets with frameworks screened.



# Appendix

## Global Biodiversity Framework Information

List of the 23 GBF targets and their abbreviations as referenced in this document.

GBF Target	GBF Target Abbreviation
TARGET 1: Plan and Manage all Areas to Reduce Biodiversity Loss	Spatial planning
TARGET 2: Restore 30% of all Degraded Ecosystems	Restoration of ecosystems
TARGET 3: Conserve 30% of Land, Waters and Seas	Conservation of ecosystems
TARGET 4: Halt Species Extinction, Protect Genetic Diversity, and Manage Human-Wildlife Conflicts	Species extinction
TARGET 5: Ensure Sustainable, Safe and Legal Harvesting and Trade of Wild Species	Species harvesting and trade
TARGET 6: Reduce the Introduction of Invasive Alien Species by 50% and Minimise Their Impact	Invasive species
TARGET 7: Reduce Pollution to Levels That Are Not Harmful to Biodiversity	Pollution
TARGET 8: Minimise the Impacts of Climate Change on Biodiversity and Build Resilience	Climate risk to biodiversity
TARGET 9: Manage Wild Species Sustainably to Benefit People	Wild species management
TARGET 10: Enhance Biodiversity and Sustainability in Agriculture, Aquaculture, Fisheries, and Forestry	Biodiversity in agriculture, aquaculture, fisheries, and forestry
TARGET 11: Restore, Maintain and Enhance Nature's Contributions to People	NCPs
TARGET 12: Enhance Green Spaces and Urban Planning for Human Well-Being and Biodiversity	Enhance urban/blue spaces
TARGET 13: Increase the Sharing of Benefits from Genetic Resources, Digital Sequence Information and Traditional Knowledge	Benefit sharing
TARGET 14: Integrate Biodiversity in Decision-Making at Every Level	Mainstreaming biodiversity
TARGET 15: Businesses Assess, Disclose and Reduce Biodiversity-Related Risks and Negative Impacts	Business reporting on biodiversity
TARGET 16: Enable Sustainable Consumption Choices to Reduce Waste and Overconsumption	Sustainable consumption
TARGET 17: Strengthen Biosafety and Distribute the Benefits of Biotechnology	Biosafety and biotechnology
TARGET 18: Reduce Harmful Incentives by at Least \$500 Billion per Year, and Scale Up Positive Incentives for Biodiversity	Incentives and finance alignment
TARGET 19: Mobilise \$200 Billion per Year for Biodiversity From all Sources, Including \$30 Billion Through International Finance	Resource mobilisation
TARGET 20: Strengthen Capacity-Building, Technology Transfer, and Scientific and Technical Cooperation for Biodiversity	Capacity building
TARGET 21: Ensure That Knowledge Is Available and Accessible to Guide Biodiversity Action	Knowledge Accessibility
TARGET 22: Ensure Participation in Decision-Making and Access to Justice and Information Related to Biodiversity for all	Representation and Participation
TARGET 23: Ensure Gender Equality and a Gender-Responsive Approach for Biodiversity Action	Gender Equality



*GBF target coverage across the frameworks and standards screened, ordered from greatest coverage to least.*

GBF Target	Target Objective	Number of frameworks		
		Directly aligned with GBF targets	Indirectly aligned with GBF targets	Directly and indirect aligned with GBF targets
T15	Business and financial institutions	20	10	30
T8	Climate risk to biodiversity	9	16	25
T7	Pollution	12	13	25
T14	Mainstreaming biodiversity	21	3	24
T2	Restoration of ecosystems	11	12	23
T3	Conservation of ecosystems	4	17	21
T1	Spatial planning	13	3	16
T6	Invasive species	1	10	11
T4	Species extinction	2	8	10
T22	Representation and Participation	7	0	7
T18	Incentives and finance alignment	2	3	5
T19	Resource mobilisation	1	4	5
T11	NCPs	2	2	4

## Acronyms

Full Name	Abbreviation
Asian Development Bank Environmental and Social Standard 6 (Biodiversity Conservation and Sustainable Natural Resources Management)	ADB ESS6
Carbon Disclosure Project	CDP
Cumulative Impact Assessment	CIA
Environmental Investment Bank Environmental and Social Standard 4 (Biodiversity and Ecosystems)	EIB ESS4
Environmental Investment Bank Environmental and Social Standard 5 (Climate Change)	EIB ESS5
Equator Principles – 4 <sup>th</sup> Iteration	EP4
EU Corporate Sustainability Directive European Sustainability Reporting Standard 1 (Climate Change)	EU CSRD ESRS E1
EU Corporate Sustainability Directive European Sustainability Reporting Standard 4 (Biodiversity and ecosystems)	EU CSRD ESRS E4
EU Environmental Impact Assessment Directive	EU EIA Directive
EU Marine Strategy Framework Directive	EU MSFD
EU Strategic Environmental Assessment Directive	EU SEA Directive
EU Sustainable Finance Disclosures Regulation	EU SFDR
Global Biodiversity Framework	GBF
Global Reporting Initiative 101: Biodiversity 2024	GRI 101
International Finance Corporation Performance Standard 6	IFC PS6



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Full Name	Abbreviation
International Financial Reporting Standards – Sustainability Disclosure Standard 1	IFRS S1
International Financial Reporting Standards – Sustainability Disclosure Standard 2	IFRS S2
Multilateral Development Banks	MDBs
Natural Capital Protocol	NCP
Organisation for Economic Co-operation and Development	OECD
Strategic Environmental Assessment	SEA
Science Based Targets Initiative	SBTi
Science Based Targets Network	SBTN
Streamlined Energy and Carbon Reporting	SECR
Task Force on Climate-related Financial Disclosures	TCFD
Taskforce on Nature-related Financial Disclosures	TNFD
World Bank Environmental and Social Framework Environmental and Social Standard 6	World Bank ESF ESS6



# Imprint

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### **About GINGR**

GINGR – the Global Initiative for Nature, Grids and Renewables aims to support the just and sustainable energy transition by providing assessment tools to quantify contributions to Nature- and People-Positive goals. To facilitate this, GINGR will develop monitoring and reporting systems that are globally aligned and standardised. GINGR is a joint effort by the Renewables Grid Initiative (RGI) and the International Union for Conservation of Nature (IUCN).

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