

INTERNAL BIODIVERSITY REPORT

TRIUM SUSTAINABLE INNOVATORS FUNDS

SEPTEMBER 2023



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BIODIVERSITY OVERVIEW

Biodiversity refers to the variety and variability of life and ecology on Earth. It is an indicator of a healthy ecosystem and supports climate, food, clean water, medicine, and shelter. The number of species present today is unknown but expected to be between 8 and 14 million, with **only 1.2 million discovered by scientists**¹. It is not only essential to protect biodiversity for its own sake, but also for humankind.

Biodiversity has historically provided resilience to ecosystems in order to deal with environmental changes, however current land use and climate trends have overwhelmed its natural adaptation.

Biodiversity Crisis

Humanity has failed to protect nature, and now we are seeing the repercussions of it. Global biodiversity is deteriorating sharply. The Living Planet Index reported an **average decline of 69% in monitored wildlife populations between 1970 and 2018**. Experts now believe we are in the midst of the sixth mass extinction and the first planetary extinction event which is man-made. The Food and Agriculture Organisation of the United Nations estimates that **420 million hectares of forest were lost to deforestation between 1990 and 2020**². Species are disappearing at unprecedented levels (10 to 1,000 times faster than the normal 'background' rate of extinction), with **1.2 million plant and animal species under threat of extinction worldwide**³.

Scientists warn that current rates of nature destruction could cross irreversible tipping points. The Planetary Boundary Guidelines, which define the environmental limits within which humanity can safely operate, set the "safe limit" for biodiversity loss as 90% intactness. We have already far exceeded this limit, with Natural History Museum researchers estimating a **global average of 75% biodiversity intactness in 2020**.

The world's remaining biodiversity hotspots are concentrated in a few regions. These hotspots, which cover only 17% of the Earth's land surface, maintain 77% of all endemic plant species, 43% of vertebrates, and 80% of all threatened amphibians. Only three countries (Brazil, Congo, and Indonesia) account for almost half the world's remaining biodiversity footprint. Preserving natural capital in those areas is critical, both locally and globally.

¹ [What is biodiversity and why does it matter? - Grantham Research Institute on climate change and the environment \(lse.ac.uk\)](#)

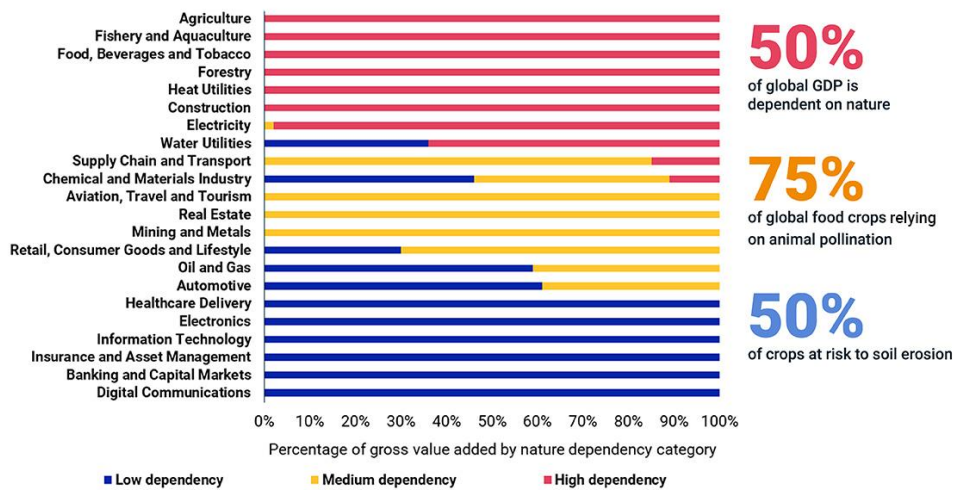
² [ca9825en.pdf \(fao.org\)](#)

³ [What are the extent and causes of biodiversity loss? - Grantham Research Institute on climate change and the environment \(lse.ac.uk\)](#)

Dependencies on Biodiversity

Biodiversity provides 'regulating' functions such as clean air, water, soil productivity and sinks anthropogenic carbon emissions – an estimated **60% of global emissions per year**. People rely on nature for food, fuel and income. In 2020 the World Economic Forum estimated that around \$44 trillion of economic value is moderately or highly dependent on nature and its services – this amounts to **over half of the world's total GDP in 2019**⁴. Six industries (materials, travel, real estate, mining, transportation, and consumer goods) are the most dependent. These industries have roughly 15% of their direct GVA (Gross Valued Added) highly dependent on nature. But this understates the impact of biodiversity, as more than 50% of the GVA of their supply chains are dependent on nature.

Dependencies of industries on natural capital



Sources: MSCI ESG Research⁵, World Economic Forum and PwC. 2020. "Nature Risk Rising: Why the Crisis Engulfing Nature Matters for Business and the Economy.", Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). 2020. "The Global Assessment Report on Biodiversity and Ecosystem Services.

The WWF's Global Futures report found continuing with the business as usual (BAU) scenario would result in GDP losses of over 0.67% per year by 2050, compared to GDP in a baseline scenario without any loss of ecosystem services. By contrast, if a global conservation strategy were applied, the annual GDP impact could be positive 0.02% annually by 2050.

The intertwinement between nature, business, and society is undeniable yet only recently has this been addressed. Upon the realisation of humanity's dependencies on nature there has been an acceleration of

⁴ [ca9825en.pdf \(fao.org\)](#)

⁵ [Biodiversity: The New Frontier of Sustainable Finance - MSCI](#)

interest in protecting nature in recent years, including a spike in interest from the financial sector. Numerous agreements and regulations have emerged attempting to put a stop to biodiversity loss.

BIODIVERSITY AGREEMENTS & REGULATIONS

Kunming-Montreal Global Biodiversity Framework

In December 2022, the 15th Conference of the Parties to the UN Convention on Biological Diversity (COP15) was held in Montreal, Canada. The outcome of COP15 was the Kunming-Montreal Global Biodiversity Framework (GBF), the most significant biodiversity deal to date. The framework was signed by **188 countries** of 196 that attended. Over 110 private financial institutions attended COP15, and over 330 businesses and financial firms signed the declaration, showing an increased interest from the sector in biodiversity⁶.

The agreement provides a framework for action and policy alignment to halt and reverse the loss of biodiversity, restore ecosystems and build resilience within society and the economy. Made up of four overarching goals, and 23 targets (See [Appendix](#)), by 2050 the GBF aims to “address biodiversity loss, restore ecosystems and protect indigenous rights”⁷. Headline targets include **protecting 30 percent of land and sea by 2030**, reducing harmful subsidies by \$500bn annually, and reducing environmental risks/waste.

While it's non-binding, the agreement is seen as analogous to the **Paris Agreement** on climate and is expected to increase stakeholder engagement and governmental regulations on the theme.

How does the GBF apply to companies and investors?

GBF calls companies and investors to “regularly monitor, assess and transparently disclose their risks dependencies and impacts on biodiversity” across their operations, supply and value chains, and investment portfolios⁸.

⁶ [TNFD: What the COP15 biodiversity framework means for investors – TNFD](#)

⁷ [COP15 ends with landmark biodiversity agreement \(unep.org\)](#)

⁸ [What biodiversity loss and the COP15 agreement mean for investors \(msci.com\)](#)

Select GBF provisions of significance for companies and investors		
Target	Summary	GBF targets
Protecting land and seas for nature	Restore and effectively conserve at least 30% of degraded land, freshwater and marine ocean ecosystems by 2030	2 and 3
Protecting wildlife	Halt human-caused extinction of threatened species; reduce rates of known or potential invasive species by at least 50% by 2030; ensure sustainable management and use of wild species	4, 5, 6 and 9
Reporting on biodiversity effects	Multinational companies and financial institutions to measure and report their biodiversity-related risks, dependencies and impacts; supply information to consumer to promote sustainable consumption; halve global food waste	15 and 16
Integrate biodiversity into financial flows	Align all public and private activities and financial flows with the goals and targets of the GBF	14
Mobilize USD 200 billion a year for biodiversity finance by 2030	Including by leveraging private finance, promoting blended finance, and encouraging the private sector to invest in biodiversity through impact funds and other instruments, ensure that the best available biodiversity data is available to practitioners and the public	19, 21
Sustainable farming	Areas under agriculture, aquaculture, fisheries and forestry should be managed sustainably; identify by 2025 subsidies that are harmful for biodiversity and reduce them by at least USD 500 billion per year by 2030	10, 18
Reduce pollution risks from all sources by 2030	Reduce the overall risk from pesticides and highly hazardous chemicals by at least half	7

Source: Kunming-Montreal Global Biodiversity Framework

As part of the GBF, there is a goal to **mobilise at least \$200 billion per year by 2030** to restore and conserve biodiversity. Mechanisms to mobilise this capital include:

- ▶ Private finance
- ▶ Blended finance
- ▶ Encouraging the private sector to invest
- ▶ Payment for Ecosystem Services
- ▶ Green bonds
- ▶ Biodiversity offsets and credits

High Seas Treaty

Bolstering the GBF, in March 2023 the long-awaited High Seas Treaty was established after talks began in 2004. The legal framework will govern a range of commercial activities in international waters, allocate capital into marine conservation and cover access to and use of marine genetic resources⁹. The agreement was reached by delegates of the Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction.

It is named the High Seas Treaty after an area in the ocean called the 'high seas' – this area accounts for two thirds of the world's oceans, where all countries have the right to fish, ship and do research. Only **1.2% of the 'high seas' are protected**, leaving space for overfishing, pollution, habitat destruction and other risks that

⁹ [UN delegates reach historic agreement on protecting marine biodiversity in international waters | UN News](#)

threaten biodiversity. The treaty aims to protect the entirety of the high seas through the use of Marine Protected Areas (MPAs), a significant shift compared to the 1.2% protected at present¹⁰.

The High Seas Treaty is crucial for achieving both the UN SDGs and the GBF.

Impact for Investors?

The Treaty will have significant impact on business models that rely on exploiting ocean resources, directly or indirectly through supply chains. Pharmaceutical and chemical companies may feel effects as a result of MPAs and the more equitable sharing of marine genetic resources.

Investors should engage with their portfolios and uncover any exposures they may have to impacted sectors and activities impacted by the Treaty.

EU Regulation on deforestation-free supply chains

In June 2023, the EU released the EU Deforestation Regulation (EUDR) that legally requires extensive due diligence on the value chain of all operators and traders dealing with specific products¹¹. There are seven commodities and certain derived products that must be '**deforestation-free**' to be sold or exported on the EU market.

¹⁰ [The High Seas Treaty: How will it Impact Investors? – ESG Investor](#)

¹¹ [Green Deal: New law to fight global deforestation and forest degradation driven by EU production and consumption enters into force \(europa.eu\)](#)

Deforestation-Free Commodities & Derived Products

Included Commodities	Examples of derived products
Cattle	Leather, Meat
Cocoa	Cocoa butter, Chocolate
Coffee	Coffee, Coffee substitutes containing coffee
Oil palm	Palm nuts, Palm oil derivatives, Glycerol
Rubber	Pneumatic tyres and inner tubes, Apparel made with vulcanised rubber
Soya	Soy beans, Soy-bean flour and oil
Wood	Fuel wood, Furniture, Casks, Pulp and paper, Printed books

Companies must confirm that the product has been produced on land that has not been subject to deforestation or forest degradation, including of primary forests, after **31 December 2020**.

No country or commodity will be banned, yet the strict due diligence of the included and derived commodities must be conducted when the new rules come into place 18 months from June 2023, in **December 2024**¹².

Due diligence includes:

- (1) Collecting detailed information that demonstrates the product's compliance with EUDR.
- (2) Carrying out a risk assessment in relation to each product to discover risk of non-compliance with EUDR.
- (3) Mitigate risks by carrying out independent audits, gathering additional documentation or working with suppliers.

Companies must also comply with relevant legislation of the country of production, including human rights and the protection of indigenous peoples.

Failure to comply with EUDR will result in penalties including fines (up to 4% of the company's EU turnover), confiscation of products, and temporary exclusion from public procurement processes and public funding.

¹² [EU adopts new rules for deforestation-free products | White & Case LLP \(whitecase.com\)](#)

FINANCIAL FRAMEWORKS & REGULATIONS

TNFD

The Taskforce on Nature-related Financial Disclosures (TNFD) is a “global, market-led, science-based and government supported initiative to help respond to the imperative to factor nature into financial and business decisions”¹³. TNFD is expected to play the key role in defining mandatory data and disclosures that form part of the GBF commitments. The TNFD will build on the work from the Task Force on Climate-Related Financial Disclosures (TCFD) to provide information useful for strategic planning, risk management and asset allocation decisions. It will likely solve the issue of lack of data by facilitating the assessment of dependencies and impact as well as establishing targets.

Over the past two years TNFD has been in its design and development phase, to provide market participants with a risk management and disclosure framework that will identify, assess, respond and, where possible, disclose nature-related risks and issues. The official TNFD framework is set to release on the **18th September 2023**, ready for market adoption and in alignment with the existing TCFD framework.

TNFD’s approach to disclosure guidance, building on TCFD’s approach

TNFD		TCFD	
General Requirements Six general requirements that cut across the four pillars of recommendations			
Recommendations Four widely adoptable recommendations tied to the same four pillars of TCFD		Recommendations Four widely adoptable recommendations tied to: governance, strategy, risk management and metrics and targets	
Recommended Disclosures 14 specific recommended disclosures organisations should include in their financial filings to provide decision useful information – aligned with TCFD’s 11 recommendations and extended with an additional three for nature	Guidance for All Sectors Guidance providing context and suggestions for implementing the recommended disclosures for all organisations	Recommended Disclosures Specific recommended disclosures organisations should include in their financial filings to provide decision-useful information	Guidance for All Sectors Guidance providing context and suggestions for implementing the recommended disclosures for all organisations
	Supplemental Guidance for Certain Sectors and Biomes Guidance that highlights important considerations for certain sectors and biomes, and provides a fuller picture of potential nature-related dependencies, impacts, risks and opportunities in those sectors and biomes Supplemental guidance is provided for the financial sector and for non-financial sectors and biomes with the most significant dependencies and impacts on nature		Supplemental Guidance for Certain Sectors Guidance that highlights important considerations for certain sectors and provides a fuller picture of potential climate-related financial impacts in those sectors Supplemental guidance is provided for the financial sector and for non-financial sectors potentially most affected by climate change

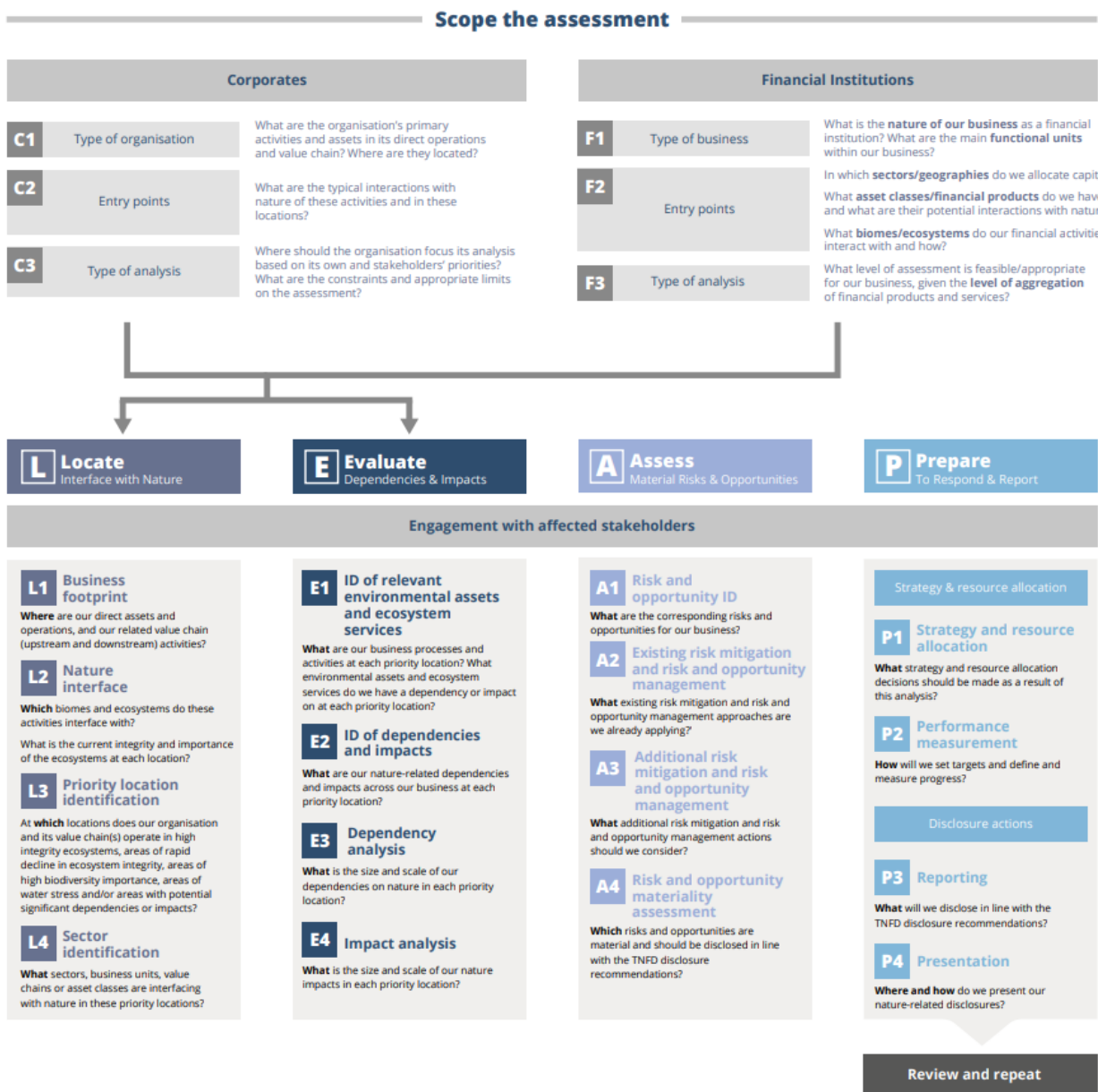
The TNFD Framework is built on assessing **four nature-related issues**, namely nature-related dependencies, impacts, risks, and opportunities. Disclosure recommendations fall into the **TCFD’s four pillars**: governance, strategy, risk and impact management, and metrics and targets. Direct metrics like Mean Species Abundance

¹³ Executive Summary - v0.4 of the TNFD beta framework » TNFD

(a measure of biodiversity intactness at a point in time) are not core metrics recommended, meaning investors will likely have to continue indirectly estimating companies' biodiversity impact based on key drivers of biodiversity loss.

To assess risk and opportunity, two new and difficult areas of analysis, taskforce developed the **LEAP risk assessment approach**, released in the final draft in March 2023. This approach includes four distinct assessment steps: **Locate** your interface with nature; **Evaluate** your dependencies and impacts; **Assess** your risks and opportunities; and **Prepare** to respond to nature-related risks and opportunities and report.

TNFD's risk and opportunity assessment approach (LEAP)



The framework will tie together the numerous agreements that have emerged surrounding biodiversity in recent years and apply it to the business and financial world. It will encourage action from companies and financial institutions, and over time increase disclosure and transparency on nature-related issues.

Corporates and financial institutions should familiarise themselves with the proposed TNFD framework and be prepared to adopt TNFD upon implementation in **September 2023**¹⁴.

EU Taxonomy

From 1st January 2023, the EU Green Taxonomy's biodiversity and ecosystems requirements were adopted¹⁵.

Biodiversity and ecosystems are one of the six environmental objectives in the Taxonomy¹⁶. The Taxonomy states that economic activities are of high relevance for biodiversity and ecosystems if they:

- ▶ Substantially contribute to the protection of biodiversity and ecosystems (see [Appendix](#))

OR

- ▶ Have a negative impact on biodiversity and ecosystems and should be excluded with the Do No Significant Harm (DNSH) criteria.
 - ▶ **DNSH criteria** ensure that the economic activities of a business are not detrimental to the good condition and resilience of ecosystems, or the conservation status of habitats and species.

There are five key industries that can have severe impacts on biodiversity, and which receive high numbers of financial investments¹⁷. These industries are especially relevant to biodiversity within the Taxonomy:

- ▶ Agriculture
- ▶ Distribution
- ▶ Mining and Extraction
- ▶ Oil & Gas Exploration and Production
- ▶ Oil & Gas Storage and Transportation

Other industries such as forestry and fishery can also have significant impacts on biodiversity and ecosystems and should be considered under the Taxonomy.

¹⁴ [From measurement to action: getting prepared for TNFD | Deloitte UK](#)

¹⁵ [EU Taxonomy: expert group publishes biodiversity recommendations | WWF](#)

¹⁶ [210412_nabu_taxonomy_biodiversity-and-ecosystems.pdf](#)

¹⁷ [Beyond 'Business as Usual': Biodiversity Targets and Finance – United Nations Environment – Finance Initiative \(unepfi.org\)](#)

In 2023 large companies must report their Taxonomy Alignment to the six environmental objectives. **From 2024 full EU Taxonomy disclosure is required**, this includes both financial institutions and large companies both reporting their Taxonomy Alignment.

APPENDIX

COP15 Four Overarching Goals

1. **Halting human-induced extinction** of threatened species and reducing the rate of extinction of all species tenfold by 2050
2. **Sustainable use and management of biodiversity** to ensure that nature's contributions to people are valued, maintained and enhanced
3. **Fair sharing of the benefits** from the utilization of genetic resources, and digital sequence information on genetic resources
4. **Adequate means of implementing the GBF** be accessible to all Parties, particularly Least Developed Countries and Small Island Developing States

Summary of GBF Targets by 2030

- 1: Loss of areas of "high biodiversity importance" is brought as close to zero as possible.
- 2: 30% of degraded terrestrial, freshwater, coastal and marine areas are under active restoration.
- 3: At least 30% of terrestrial, freshwater, coastal and marine areas are protected, recognising and respecting the rights of indigenous peoples and local communities (IPLC).
- 4: Human-induced extinction of threatened species are halted, including through efforts to minimise human-wildlife conflict.
- 5: Use, harvesting and trade of wild species is sustainable, safe and legal, with the customary sustainable use by IPLCs respected and protected.
- 6: Impacts of invasive alien species are eliminated, minimised, reduced or mitigated. Rates of introduction of invasive species are reduced by at least 50%.
- 7: Pollution risks and impacts are reduced, including reducing by at least half excessive nutrients lost to the environment and the overall risk from pesticides and highly hazardous chemicals.
- 8: Impact of climate change and ocean acidification on biodiversity is minimised through mitigation, adaptation and disaster risk reduction. Positive impacts of climate action on biodiversity are fostered.
- 9: Management and use of wild species is sustainable, thereby providing social, economic and environmental benefits for people, especially those in vulnerable situations and those most dependent on biodiversity.
- 10: Areas under agriculture, aquaculture, fisheries and forestry are managed sustainably, including through an increase in biodiversity-friendly practices.
- 11: Nature's contributions to people, including through ecosystem functions and services, are restored and maintained, through nature-based solutions and ecosystem-based approaches.

12: The area and quality of green and blue spaces in urban and densely populated areas is significantly increased.

13: Benefits from the utilisation of genetic resources, digital sequence information and traditional knowledge are fairly and equitably shared, through effective legal, policy, administrative and capacity-building measures at all levels.

14: Biodiversity values are fully integrated into policies, regulations, planning and development processes, poverty eradication strategies, strategic environmental assessments, environmental impact assessments and national accounting. All relevant public and private activities and fiscal and financial flows are progressively aligned with the goals and targets of the GBF.

15: To progressively reduce negative impacts on biodiversity and increase positive impacts, companies and financial institutions are encouraged to use legal, administrative or policy measures to: (a) regularly monitor, assess and transparently disclose their risks, dependencies and impacts on biodiversity along their operations, supply and value chains and portfolios; (b) provide information needed to consumers to promote sustainable consumption patterns; and (c) report on compliance with access and benefit-sharing regulations and measures.

16: The global footprint from consumption is reduced in an equitable manner, with global food waste halved and overconsumption and waste generation significantly reduced.

17: Biosafety measures for the handling of biotechnology are implemented.

18: Incentives (including subsidies) harmful to biodiversity identified by 2025. Harmful incentives are reduced by at least USD500bn per year. Positive incentives for the conservation and sustainable use of biodiversity are scaled up.

19: The level of financial resources from all sources is substantially and progressively increased to implement national biodiversity strategies and action plans (NBSAPs), mobilising at least USD200bn per year, including by: (a) increasing total biodiversity-related international financial resources to developing countries to more than USD20bn per year by 2025, and to at least USD30bn per year by 2030; (b) developing national biodiversity finance plans; (c) leveraging private finance, promoting blended finance, implementing strategies for raising new resources, and encouraging the private sector to invest in biodiversity; (d) stimulating innovative schemes such as payment for ecosystem services, green bonds, biodiversity offsets and credits, and benefit-sharing mechanisms, with environmental and social safeguards; (e) optimising co-benefits and synergies of finance targeting the biodiversity and climate crises; (f) enhancing the role of collective action, including by IPLCs and community-based natural resource management.

20: Capacity, including for scientific research and monitoring, is strengthened through global cooperation.

21: The best available data, information and knowledge is accessible to decision makers, practitioners and the public to guide effective and equitable governance and the integrated and participatory management of biodiversity. Traditional knowledge from IPLCs should be accessed according to FPIC principles.

22: Full, equitable, inclusive, effective and gender-responsive representation and participation is ensured for IPLCs and other vulnerable groups in decision-making. Access to justice and information related to biodiversity is ensured, and environmental defenders are protected.

23: Gender equality is ensured, including by recognising the equal rights and access to land and natural resources of all women and girls

Article 15 of the Taxonomy Regulation

Article 15

Substantial contribution to the protection and restoration of biodiversity and ecosystems

1. An economic activity shall qualify as contributing substantially to the protection and restoration of biodiversity and ecosystems where that activity contributes substantially to protecting, conserving or restoring biodiversity or to achieving the good conditions of ecosystems, or to protecting ecosystems that are already in good condition, through:
 - (a) nature and biodiversity conservation, including achieving favourable conservation status of natural and semi-natural habitats and species, or preventing their deterioration where they already have favourable conservation status, and protecting and restoring terrestrial, marine and other aquatic ecosystems in order to improve their condition and enhance their capacity to provide ecosystem services;
 - (b) sustainable land use and management, including adequate protection of soil biodiversity, land degradation neutrality and the remediation of contaminated sites;
 - (c) sustainable agricultural practices, including those that contribute to enhancing biodiversity or to halting or preventing the degradation of soil and other ecosystems, deforestation and habitat loss;
 - (d) sustainable forest management, including practices and uses of forests and forest land that contribute to enhancing biodiversity or to halting or preventing degradation of ecosystems, deforestation and habitat loss; or
 - (e) enabling any of the activities listed in points (a) to (d) of this paragraph in accordance with Article 16.