value balancing alliance

The importance of biodiversity and its increasing significance within regulation

On the heels of the landmark “Paris Agreement for Nature” at the CBD COP15 last December in Montreal, biodiversity is being positioned by politics, regulators and legislators as the central environmental topic next to climate change, and key financial market players are very actively promoting the topic – especially in Europe.

Similar to climate change, substantial and indisputable scientific evidence, as well as increasingly apparent negative impacts on society from the loss of biodiversity, are the main underlying themes.

But unlike climate change, the loss of biodiversity causes direct, local and permanent threats to many natural services, resources and benefits that every company – indeed, every form of life on earth – depend upon, often free of charge and unnoticed:

Biodiversity is essential for the functioning of ecosystems, and thus for maintaining the life of all living systems, including society and the economy. Since the 1970s, however, biodiversity has been permanently reduced by up to 85% and continues to be threatened by human impacts such as land use or pollution, but increasingly also by man-made climate change. Such unparalleled destruction of the natural environment in such a short period of time inexorably leads to permanent change or even collapse of many ecosystems, triggering complex and often poorly understood feedback-loops that ultimately cause negative impacts on society and serve to turbo-charge climate change.

“Biodiversity”

The term **“biodiversity”** refers to the general variety of all living organisms and ecosystems on land, in water and in the air, as well as the diversity of benefits society derives from them.

Often understood in public discussion as simply “species diversity”, the term in science, politics, law & regulation is defined much more comprehensively as **“nature”**, and thus includes:

- the diversity, range and condition of, and within, **species**
- the diversity, range and condition of, and within, **ecosystems** – as well as their interconnectedness
- the diversity, range and condition of **ecosystem services** provided by nature, on which human society depends.

Damaged ecosystems cannot provide services like purification of water and air, pollination or production of food and natural resources at the scale to which society is accustomed. The loss of CO2-absorbing vegetation and genetic diversity significantly amplifies climate change and reduces the ability of nature – and ultimately also human society – to cope with its consequences.

Studies by, e.g., the World Bank or the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), estimate that more than 50% of global GDP depends heavily and directly on the services and resources nature provides. A pollination, would very likely cause permanent annual losses amounting to at least

2.3% of global GDP – with some emerging markets facing losses as high as 10%. As outlined by a vast body of scientific and increasingly real-life evidence, the business model of many industries is fundamentally built upon the free and abundant availability of natural or ecosystem services. In particular: agriculture, food production, construction, energy, infrastructure, transportation and tourism, but also economic sectors that rely heavily on these within their supply chains, face significant risks that they are often completely unaware of and which are often virtually impossible to mitigate under current paradigms.

Given the substantial and fundamental exposure of these industries, both the financial markets and their regulators have become increasingly aware and concerned – the latter having classified nature-related risks as systemic to both the global economy and financial markets in 2022.

Direct costs arise, e.g., from the loss of provisioning services such as biomass and food production, but also from the very cost-intensive, or even impossible, replacement of ecosystem services like pollination or biological purification and degradation processes that maintain drinking water, air or soil quality.

Indirect costs arise from the loss of regulating or supporting ecosystem services, such as CO2 sequestration, photosynthesis or weather-regulating ecosystem features. Without the substantial protection that, e.g., healthy forests, coral reefs, moors or soils provide, extreme weather events akin to the Aartal catastrophe of 2021 in Germany are very likely to increase in both frequency and severity.

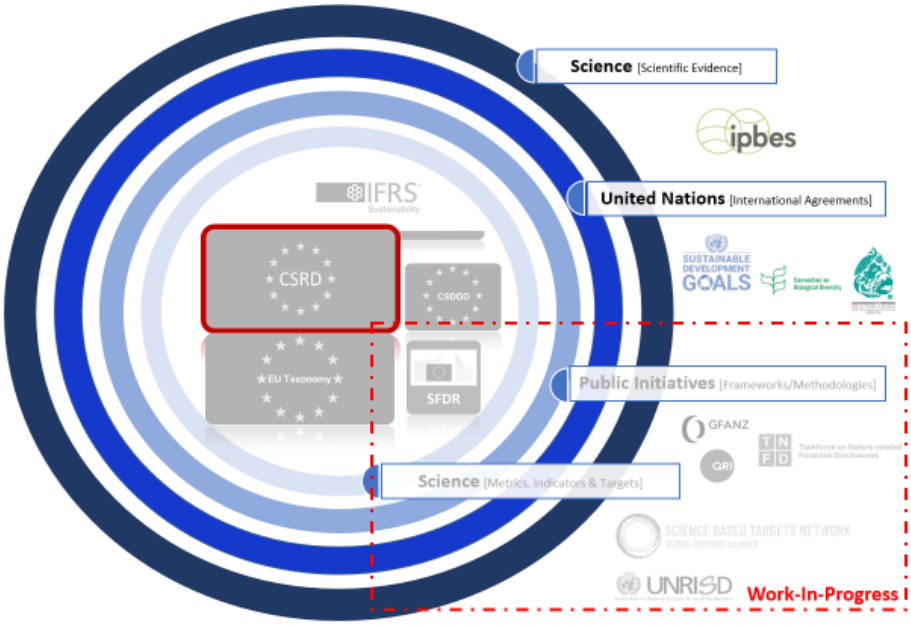

Figure 1. The evolving role of international frameworks and initiatives in defining corporate biodiversity regulation and reporting.

As depicted in figure 1, legislators and regulators, particularly in the EU, increasingly recognize the fundamental importance of nature and its interdependencies with climate change, and thus place biodiversity at the heart of almost all frameworks within the EU Green Deal:

- One of the EU Taxonomy's six environmental objectives directly relates to biodiversity, while the remaining five effectively focus on the major impact drivers that lead to biodiversity loss
- Within the Corporate Sustainability Reporting Directive (CSRD), biodiversity is addressed within an individual topic standard (ESRS E4) that requires a company to assess, understand and report its material impacts on – but also interdependencies with – nature
- Various Principal Adverse Indicators (PAIs) of the Sustainable Finance Disclosure Regulation (SFDR) directly relate to biodiversity. As a consequence, any "sustainable investment" according to SFDR will need to consider, reflect and protect nature
- The upcoming Corporate Sustainability Due Diligence Directive (CSDDD) explicitly addresses the topic, making it legally binding for companies to directly consider biodiversity in their internal due diligence processes
- Lastly, the EU's Deforestation Regulation fundamentally addresses biodiversity by protecting forest ecosystems from further destruction and unsustainable resource exploitation.

Internationally, both the Global Reporting Initiative (GRI) and the IFRS' International Sustainability Standards Board (ISSB) intend to position corporate biodiversity reporting as the second environmental focus topic, next to climate change.

In contrast to corporate climate change reporting, the definition and establishment of corporate biodiversity reporting best practice is still evolving, yet at a rapid pace:

With the Kunming-Montreal Global Biodiversity Framework (GBF, "Paris Agreement for Nature") setting both the timeline and the overarching targets to halt and reverse the ongoing loss of nature by 2030, the Science Based Target Network (SBTN) is currently consolidating state-of-the-art scientific knowledge relating to the assessment and measurement of nature. Driven by over 20% of global asset under management, and more than USD 2.3tr market capitalization, the Taskforce on Nature-related Financial Disclosure (TNFD), is currently developing a risk management and risks, with the ultimate aim of supporting a shift in global financial flows away from disclosure framework for organizations to report and act on evolving nature-related

nature-negative, toward nature-positive, outcomes. To facilitate standardized corporate biodiversity reporting, the TNFD's approach to scoping, locating, evaluating, assessing and finally reporting on/disclosing (S-LEAP approach) an organization's impacts and dependencies upon nature is already referenced by many reporting standards as market best practice.

While many relevant frameworks and initiatives are still in development, it is reasonable to expect corporate biodiversity best practice to be established by 2024. Market consolidation, however, towards a concise set of accepted nature KPIs will take more time due to the intrinsic complexity of the topic as well as the lack of targeted scientific research into specific areas, especially with regard to the translation of qualitative impacts and interdependencies into quantitative risks and opportunities stated at value.

The Value Balancing Alliance (VBA) IMV methodology has already enabled significant advancement in this context, from a value-to-society, and especially from a value-to-business perspective. To facilitate science-based, yet practical corporate biodiversity reporting, the VBA is actively engaging and working closely together with all relevant stakeholders. Having brought together the relevant standard setters for the first time at the crucial CBD COP15 in December 2022, the VBA is now following through on its initiative by building close relationships with both SBTN and TNFD. This will allow VBA members to remain at the forefront of corporate biodiversity reporting while actively ensuring usability and practicability of sustainability reporting data beyond simple accounting.

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