

## Chapter 3

# Biodiversity Initiatives: Theoretical and Practical Intersections Among TNFD, Biodiversity Credits, and ESG Reporting

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### **ABSTRACT**

*The world is facing pressing environmental challenges, including climate change, biodiversity loss, and resource scarcity. These issues have led businesses and investors to concentrate on ESG factors, which are increasingly crucial for long-term sustainable growth. However, the existing ESG framework is not a panacea for urgent problems such as energy, climate, and biodiversity crises. This chapter explores the emerging role of the TNFD and the potential benefits of incorporating biodiversity credits in ESG reporting practices as a unified mechanism to combat biodiversity challenges and sustainability issues, highlighting the synergies among these concepts and the possible advantages of integrating them into business operations. By addressing nature-related risks and adopting market-based instruments like biodiversity credits, companies can better position themselves to achieve their ESG objectives and generate long-term value.*

### **INTRODUCTION**

In a bid to reduce the alarming rate of biodiversity loss, countries from around the globe gathered in Montreal, Canada, in 2022 for the 15th Conference of the Parties (COP15). As per a report by Briggs (2022), more than 200 countries have pledged to safeguard one-third of the planet's land and sea areas by 2030. The Living Planet Report 2022, which was recently released by the World Wildlife Fund (WWF), highlights some alarming statistics about the global wildlife population. According to the report, between

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1970 and 2018, global wildlife abundance has declined by approximately 69%, with freshwater species being the most affected, with a decrease of up to 83%. This sharp decline in species puts them at a much higher risk of extinction (WWF, 2022). The United Nations Convention on Biological Diversity (COP 15), which was held in Montreal, Canada in December 2022, has established goals that are deemed to be the “best and last chance” to minimize and reverse natural decline.

Biodiversity refers to the variety of life in all its forms, from genetic diversity within individual species to the variety of ecosystems across the planet. It provides crucial services like pollination, pest control, and water purification that support human well-being and the global economy (Rands et al., 2010). The Kunming-Montreal Global Biodiversity Framework, which was established during COP15, lays out four global targets for 2050 and 23 specific objectives for 2030. Specific objective 15 states that large multinational corporations and financial institutions should regularly monitor, assess, and disclose their risks, dependencies, and impacts on biodiversity. Gradually reducing negative impacts, expanding positive ones, and promoting sustainable production patterns (CBD, 2022). As such, companies must consider and act upon the challenge of understanding how to measure the natural risks associated with their business activities and value chains (Jones and Solomon, 2013; Kurth et al., 2021).

From a business perspective, biodiversity loss poses various risks, such as disrupted supply chains, reduced availability of natural resources, and decreased resilience to climate change. Protecting biodiversity is, therefore, a moral and economic imperative that can enhance long-term corporate viability and value creation. The impact of corporate operations on global biodiversity is best understood within four primary categories: 1) changes in land and marine use, 2) direct consumption of living organisms, 3) pollution contributing to climate change, and 4) invasion of non-native species (IUCN, 2021). While the degree to which companies pressure biodiversity varies, loss of animals, plants, habitats and ecosystem services may occur as a result of various practices including land-use changes (e.g., construction, agriculture, and mining), direct utilization of living organisms (e.g., overfishing or deforestation), pollution (e.g., agricultural chemicals or waste disposal), climate change (e.g., greenhouse gas emissions or deforestation), the introduction of harmful invasive species (e.g., through shipping), the transformation of natural systems (e.g., dam building), and transportation corridors (e.g., roads and shipping channels).

ESG, which stands for Environmental, Social, and Governance, is a reporting framework used to measure a company’s sustainability performance. It was introduced by the United Nations Global Compact in 2004 and evaluates a corporation’s social responsibility by examining three significant dimensions: sustainable environment, social participation, and corporate governance (Halbritter and Dorfleitner, 2015). According to a sustainability audit conducted by KPMG, a renowned global accounting firm, 46% of the world’s largest 250 companies by revenue have acknowledged the risks posed to their business operations by biodiversity loss. Similarly, 40% of the leading 100 companies by revenue in various regions have recognized the same risks (KPMG, 2022). However, the current environmental criteria within ESG mainly focus on climate change mitigation and natural resources management. Although these factors are critical, they do not fully address biodiversity loss, ecosystem resilience, and the interdependence between humans and nature. Consequently, there is an ongoing debate about the effectiveness and completeness of this approach in resolving the biodiversity crisis (Jones and Solomon, 2013; Lambooy et al., 2018). Moreover, most ESG frameworks, such as the MSCI ESG Ratings, tend to give limited emphasis to biodiversity risk compared to other environmental concerns, such as climate change, which could lead to an imbalance in issue prioritization. Additionally, ESG frameworks usually address the consequences of biodiversity loss rather than proactively promoting systemic changes necessary to prevent further biodiversity declines. For example, reporting on ESG indicators such as greenhouse gas

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