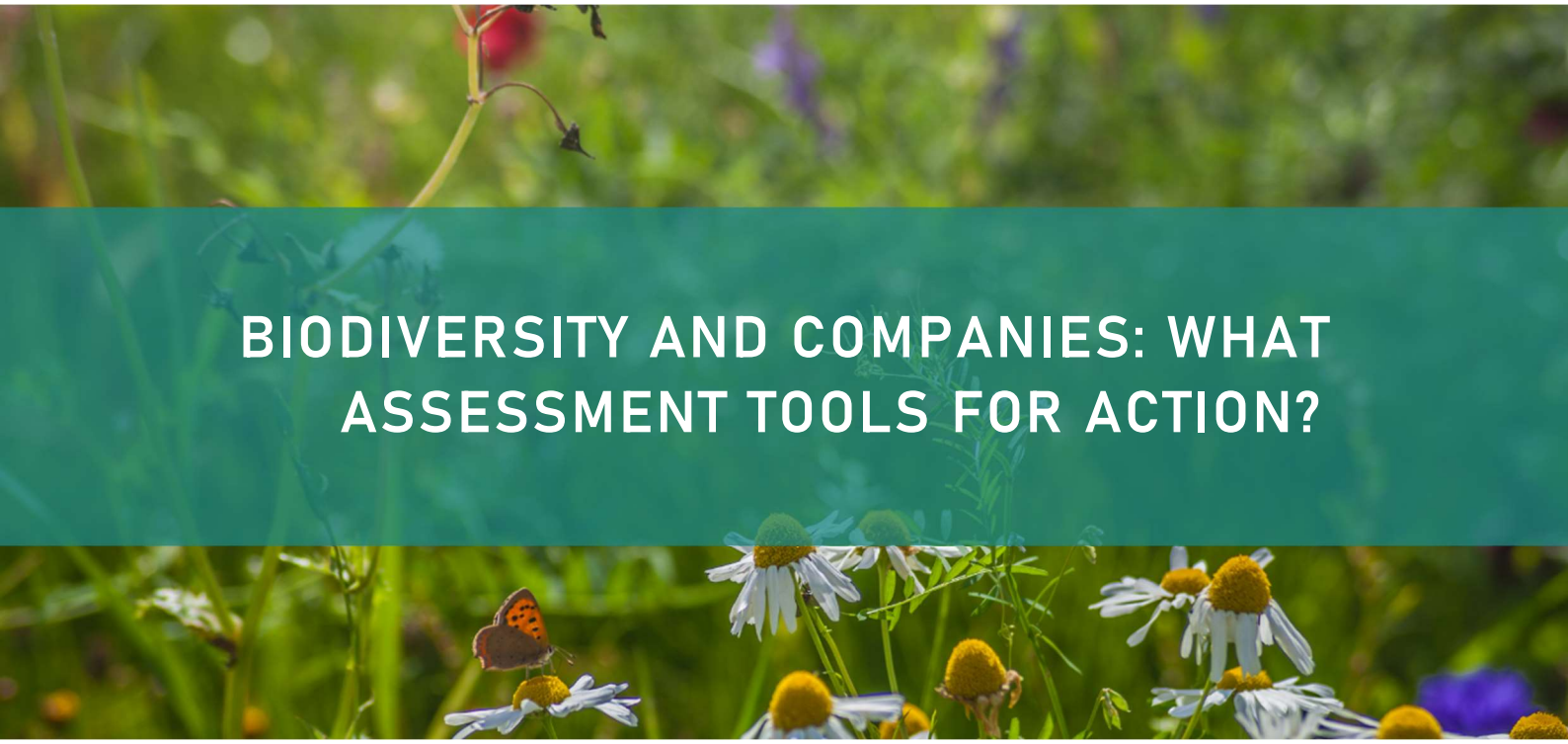
EXPERT OPINION

YES, WE CARE ABOUT #13



BIODIVERSITY AND COMPANIES: WHAT ASSESSMENT TOOLS FOR ACTION?

By Eliette Verdier, Juliette Bodez and Célia Chamillard

Introduction

The year 2020 **was supposed to be a crucial year for biodiversity**, but the pandemic has decided otherwise, and it is in fall 2021 and in 2022 that public and private actors have an opportunity to discuss biodiversity: the IUCN World Conservation Congress was held in early September in Marseille[1], and the COP15, the 15th Conference of the Parties of the Convention on Biological Diversity, opens virtually this week, and will close in Kunming (China) at the end of April 2022. The Aichi targets, defined in 2010 for 2010-2020, will be updated on this occasion, concluding the consultation process launched several years ago, in the framework of a "Global Biodiversity Framework", and of which the first draft indicates the direction.

Biodiversity erosion is more worrying than ever, between the **alarming announcements of the IPBES on the decline of biodiversity in the world** (Díaz et al. 2019) and the ties between the degradation of nature and the risks of pandemics (IPBES 2020)**. The urgency is to act**. The biodiversity planetary boundary[2] of would already be exceeded. It is estimated that at least 72% of the world's biodiversity should be preserved in order to avoid damaging the functioning of the Earth system, **whereas the 2010 level was estimated at 65%, and projected at 56% in 2050 if no change is initiated**[3] (Lucas et Wilting 2018). A more recent paper gives a value of 56% already for 2015 according to the same updated assessment methodology (Schipper et al. 2020). And almost none of the Aichi targets have been met...

[1] More than 1500 members gathered to vote on 39 resolutions on international biodiversity management, emphasizing that post-covid recoveries must be made with nature and climate at the center of the measures.
[2] The concept of planetary limits defines a sustainable development space for humanity, currently based on a set of biophysical processes, including biodiversity loss, that regulate the stability of the planet.
[3] These models use the MSA (Mean Species Abundance) metric, i.e. the average abundance of species compared to a pristine state of 100%.

Biodiversity provides us with crucial ecosystem services (natural resources, regulation, recreational value), yet it is mainly due to our activities that it is threatened. We will only succeed in mitigating the threat if we act urgently, and this means that companies and their investors must take biodiversity issues into account in their strategies. The latter also use the term **natural capital**[4] to refer to the capital that nature constitutes for our economic model, which includes both the living and non-living resources of our planet.

Although the carbon footprint method and the evaluation of emissions in tons of CO2 equivalent are now widespread among companies, its **biodiversity equivalent is just beginning to be established**. This delay is due to the complexity of measuring biodiversity, to a lack of awareness of this **complex issue** among stakeholders (UNEP-WCMC 2020), and to a lack of sufficient stimulus measures.

This article aims **to clarify the link between economic activities and biodiversity** and to **present the challenges and means for a relevant assessment of the impact on biodiversity**, whether at the level of a product, a company or an investor. Indeed, the last three years have seen the development of **numerous initiatives and tools** that are now available, even if they are still evolving.

2020 UN BIODIVERSITY CONFERENCE
COP 15 - CP/MOP10-NP/MOP4
Ecological Civilization-Building a Shared Future for All Life on Earth
KUNMING · CHINA

IUCN WORLD CONSERVATION CONGRESS Marseille

The 2021-2022 agenda for biodiversity is loaded with global summits

First draft of the post-2020 Global Biodiversity Framework

Convention on Biological Diversity

At least 72% of the planet's biodiversity must be protected.

In 2050, only 56% will be protected if nothing is done.

October, 2021

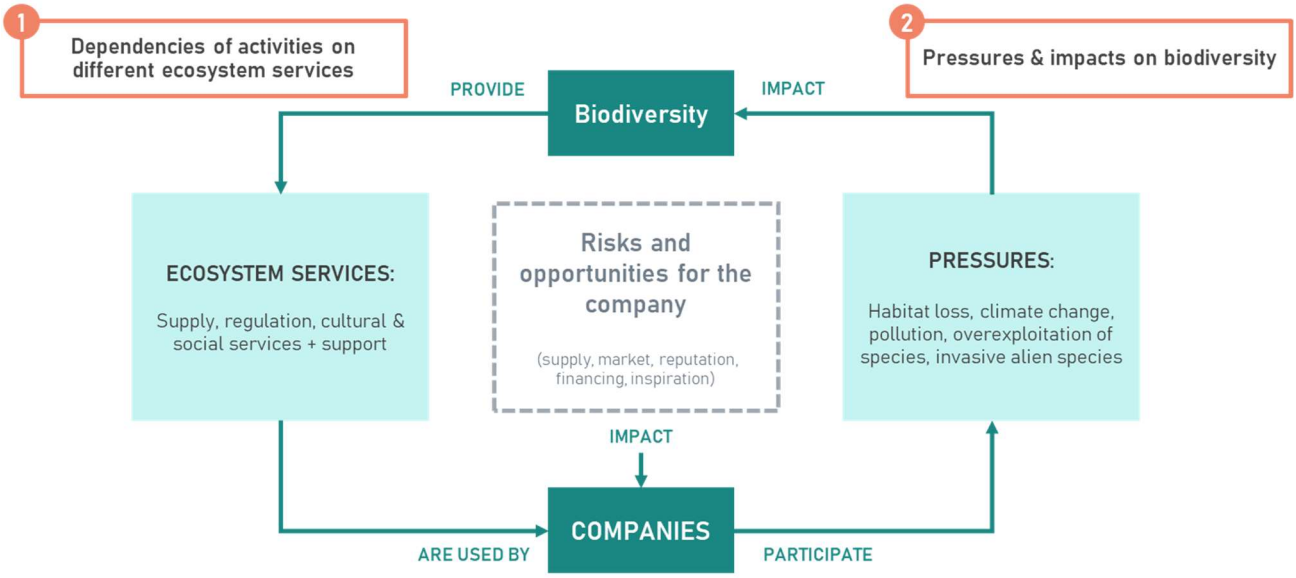
[4] "Stock of renewable and non-renewable natural resources (plants, animals, air, soils, etc.) that associated provide services to humans" (Natural Capital Coalition, 2016).

1 Insufficient consideration of biodiversity issues

The issue of biodiversity is multiscale. France is thought to possess 10% of the world's recognized biodiversity today, with the majority in overseas territories (Díaz and al. 2019). Policies such as the **National Strategy for Biodiversity** (Stratégie nationale pour la biodiversité - SNB) are therefore necessary to preserve it and promote sustainable development of our activities. Nevertheless, with a rather mixed record and proposals that are still too vague for businesses, expectations for the new SNB to come in 2021 are high. Moreover, **the report of the CSR platform of France Stratégie shows that biodiversity is rarely identified as a significant risk by companies, and not at all integrated into their business strategy** (Boucherand, Swiderski, and Moreux 2020). This statement is also document in the latest report of the Aligning Biodiversity Measures for Business collaboration initiative, within the framework of the European Business@Biodiversity Platform: biodiversity erosion is not perceived as material neither by companies nor by financial players through the risks it creates (EU B@B Platform 2021). It is mentioned as the main obstacle to the deployment of the biodiversity impact assessment of companies, along with the lack of powerful economic drivers.

But why is it a major challenge for companies to have a biodiversity strategy? First of all, because **companies depend on biodiversity and its ecosystem services**[5], sometimes directly through their value proposition (e.g., agriculture) or indirectly (ecosystem services creating the conditions for the company to operate). **The World Economic Forum ranks the risk of global biodiversity loss third in terms of impact and fourth in terms of occurrence likelihood** (World Economic Forum 2021).

But above all, companies impact biodiversity, **contributing to its decline through the pressures they exert on habitats.** The **drivers** identified by IPBES (Díaz and al. 2019) (climate change, habitat change, pollution, species overexploitation, and invasive alien species) are a useful way to classify, understand, and quantify a company's impacts along its **value chain**.



[5] These services fall into four categories: production (supply of raw materials by ecosystems), regulation (regulation of air or water quality by ecosystems and in particular by flora and microorganisms), socio-cultural (impact of nature on well-being) and support (production of atmospheric oxygen, water cycle, etc.).

Thus, while some practices may have a positive impact on biodiversity, many business activities have a significant negative impact throughout their value chain. The pressure of **climate change** is mainly linked to energy consumption for materials' processing, heating and electricity, and is therefore an important issue, often already taken into account by companies in low-carbon or other strategies. The **overexploitation of biological resources and the degradation of habitats** are also a major impact of companies, especially of those whose production activities involve the **consumption of natural resources** or the production of food. The **expansion of invasive species** is mainly linked to the transport of goods, whether finished products or materials. Finally, **pollution** is diverse and varies greatly according to the sector; it is often localized near production and/or consumption activities.

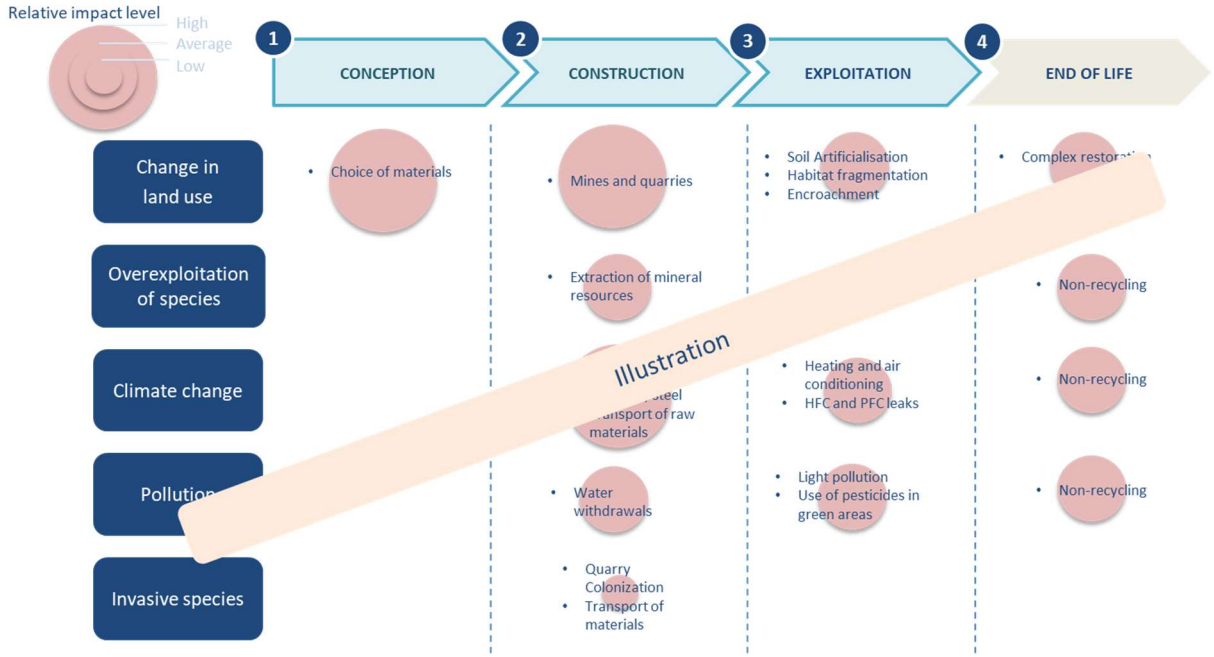


Figure 1. Sample Impact Analysis: Construction Sector Biodiversity Pressures Across the Value Chain

Faced with this growing challenge, more and more **tools and methods are being developed to help companies understand their impacts and dependencies**, and to integrate biodiversity into their strategy.

2 What tools can be used to assess the biodiversity impact of a company?

While the biodiversity issue is indeed there with all its inherent complexity, many companies are often confused about the choice of their impact assessment tool. According to a FRB[6] survey, **38.5% of stakeholders say they are not familiar with biodiversity assessment tools, and 57.7% say they do not use them due to this lack of knowledge** (Delavaud and al. 2021). In order to help companies consider and choose between assessment tools, the EU B@B platform recently released a **navigation wheel that allows users to navigate between 19 tools** and exists in two versions: one for companies and another for financial institutions (EU B@B Platform 2021). This wheel, based on 6 criteria, also provides quantitative information on the significance of biodiversity impacts.

But before opting for one of these methods, the company must **define its needs**, determine the **scope** of the assessment (for the company as a whole, for a product, a site, etc.), pre-identify the **use of its results** (risk and opportunity assessment, comparison of options, estimation of net impact, etc.), and identify the **objective** (meeting the SDGs[7], objectives specific to the sector or the company, etc.). Once these criteria are defined, the selection of tools will be more limited and decision-making easier.

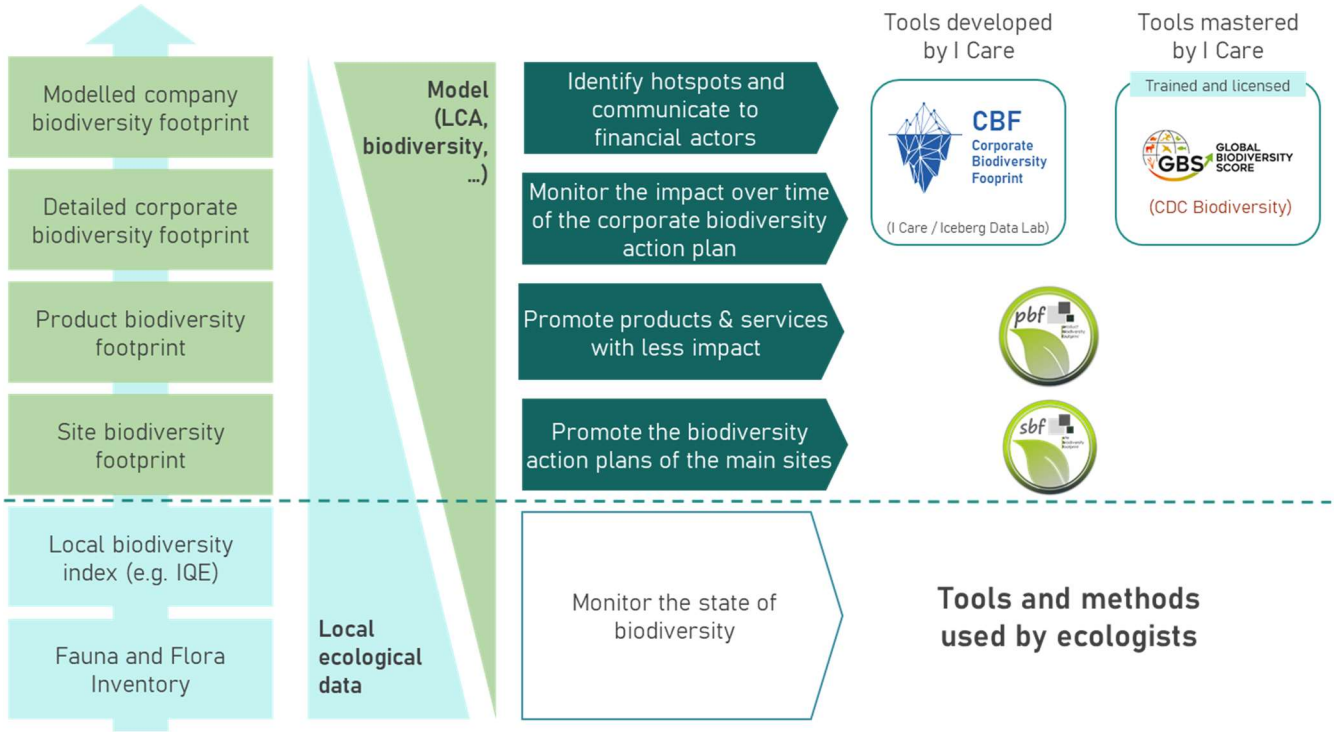
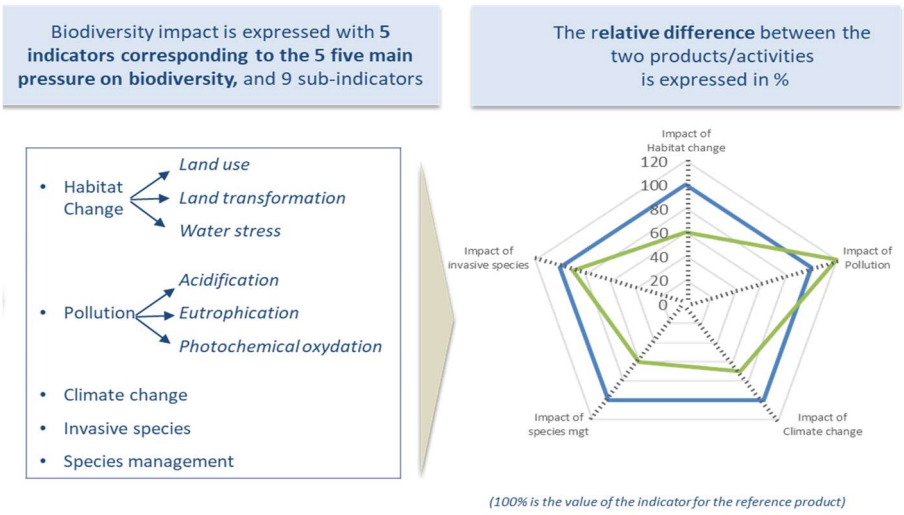


Figure 2. Examples of biodiversity impact measurement tools for companies, depending on the objective.

[6] French Foundation for Biodiversity Research (Fondation pour la Recherche sur la Biodiversité – FRB)
[7] Sustainable Development Goals established by the United Nations Member States in 2015 at the heart of the 2030 Agenda

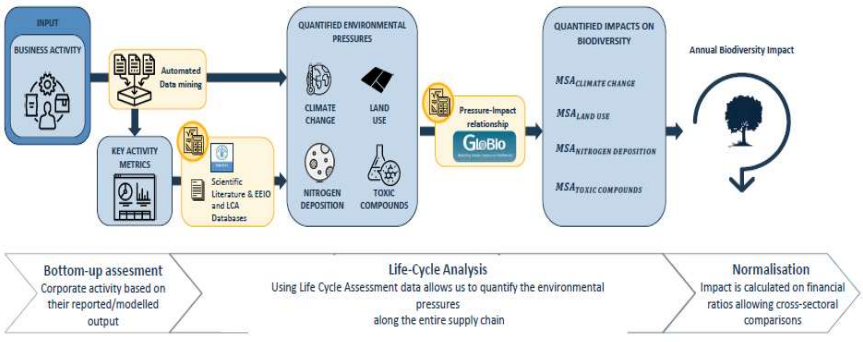
Thus, according to the company's needs, **there is not one right tool but several, allowing to answer different questions and ambitions.**

Product Biodiversity Footprint & Site Biodiversity Footprint



PBF (Product Biodiversity Footprint) and SBF (Site Biodiversity Footprint) combine biodiversity studies and company data to respectively **quantify the biodiversity impacts of a product throughout its life cycle stages and that of a site**. The methodology involves both **LCA (Life Cycle Assessment) and ecological scientific literature**. PBF and SBF allow to **compare several solutions of a product or site configuration**, and give the result as a relative impact score between a reference product/site and one (or several) variant product(s)/site(s). The analysis of the impacts along the value chain (through PBF) and by pressure allows to provide relevant **recommendations** to companies.

Corporate Biodiversity Footprint



In 2020, Iceberg Data Lab and I Care have been selected to develop a tool that will allow investors to **measure the impact of their investments on biodiversity**. Supported by a coalition of investors, the project will develop the "Corporate Biodiversity Footprint", a method to **quantify the impact on biodiversity of companies through their activities across their value chain**.

3 What future for corporate biodiversity assessment?

As biodiversity assessment methods develop, expectations for them are high. In addition to being **easily reproducible and effective**, whether in terms of use or results, a biodiversity assessment method must be **coherent and understandable by all**, with a precise scope of assessment and a comparison of results with reference values. Another major expectation that has now been partially met is that **all sectors should be taken into account** and that everyone should be able to access all the assessment perimeters (company, product, site, portfolio, etc.). According to the survey conducted by the FRB, for more than three quarters of respondents, the **ideal indicator should be easy to implement, present a simplified methodology and produce a quantitative and measurable result** (Delavaud et al. 2021).

With this in mind, the **global SBTn[8] initiative** has emerged from a coalition of companies and builds on the momentum of the SBTi[9] initiative, which engaged nearly 1,000 of the world's largest companies to commit to greenhouse gas emission reduction targets. The SBTn approach, for which the initial guidance was released in September 2020 (SBTn 2020), will need to focus on nature by proposing targets that are aligned with global limits and the SDGs, and that are measurable, achievable and time-bound. The outcome of the COP15 negotiations and the **post-2020 framework for global biodiversity will accelerate the work on building shared trajectories to achieve the targets**. This work will be made possible by the deployment of quantitative measurement methods, and is key to engaging private actors.

Current biodiversity assessment tools still face significant limitations. For those tools that are already operational, **direct use by companies still seems complicated**. **The point of view of an expert is essential for the validation of results**, but is also very enriching for the support of the company in the drafting of an action plan or the development of a biodiversity strategy. These **biodiversity assessment approaches must be seen as a decision-making tool and not as a source of judgment by external stakeholders**. In this sense, it seems important that the specifications of the tools **include procedures for monitoring the evolution of scores over several years**.

Another limitation of biodiversity assessments is the lack of a common indicator and therefore of comparability. Unlike the carbon footprint method and its single indicator, the tonne of CO_2 equivalent, there is no single metric that allows comparison of the results obtained by different tools. According to France Stratégie's CSR platform, **the development of a single indicator of this kind remains unlikely, and companies should not wait for it to identify and understand their impacts on biodiversity** (Boucherand, Swiderski, and Moreux 2020). Nevertheless, if biodiversity assessments are to become widespread, the development of bridges between indicators seems essential. It would **ease the communication of scores, and perhaps even their display on products**. Moreover, making one's biodiversity score public represents an opportunity for companies. While companies with a high impact will initially see this as a risk, those who commit now will not only contribute to reducing impacts on biodiversity, but will gain credibility and a reputation strong enough to encourage their employees, consumers and suppliers to follow them.

[8] Science-Based Targets for Nature
[9] Science-Based Targets Initiative

Conclusion

To conclude, while the issue of biodiversity is gaining importance in public opinion and within companies, expectations regarding biodiversity assessment methods are very high.

The current dynamics of tool development and collaboration between experts, public authorities and companies, such as ALIGN[10] for the establishment of standards, are fueling hopes for strong and significant action in favor of biodiversity, in particular through the resources allocated and the associated prospects for action on the part of companies.

Start your company's biodiversity impact assessment:

1.	**Needs**	Define your company's needs
2.	**Scope**	Define the scope of the assessment (for the company as a whole, for a product, a site etc.)
3.	**Use of results**	Pre-identify the **use of its results** (risk and opportunity assessment, comparison of options, estimation of net impact, etc.)
4.	**Objective**	Target the **objective** (meeting the SDGs, objectives specific to the sector or the company) and set up **tracking** process over several years

Companies that commit now will not only **contribute to reducing biodiversity impact**, but will also **gain credibility and a reputation** strong enough to encourage their employees, consumers and suppliers to follow them.

Contact us to continue the conversation around the biodiversity impact assessment tools.

[10] https://ec.europa.eu/environment/biodiversity/business/align/index_en.htm

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