

# Energy transition and biodiversity: a difficult union



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The year 2023 marks the 30th anniversary of the entry into force of the Convention on Biological Diversity. And yet, while major global forums – COP 15 in Montreal in December, the International Seabed Authority Council in Kingston and the One Forest Summit in Libreville in March – have punctuated the news in recent months, a detailed understanding of biodiversity issues is still limited to a college of experts.

The climate threat has long dominated political, economic and media debates, with many believing that the fight against climate change automatically goes hand in hand with the preservation of life.

Yet while the consequences of biodiversity loss may seem less glaring than climate catastrophes, their scale is enough to make you break out in a cold sweat: we're on the verge of a sixth mass extinction, with species disappearing at a rate 100 to 1,000 times higher than the natural rate; almost 75% of terrestrial environments and 40% of marine ecosystems are reportedly already degraded.

## **As investors, why integrate biodiversity issues into our investments? How can we take into account both the damage caused by issuers' activities on ecosystems and the risks that biodiversity loss poses for a company or a sector?**

Although financing is indeed crucial to accelerating the transition to a more sustainable world, we still need to be able to separate the wheat from the chaff, in order to direct financial flows towards the most viable economic projects over the long term. In the short term, many sectors have negative impacts on biodiversity that have not been valued, but in the long term these same sectors will see their activity dry up and their valuation deteriorate if natural capital and biodiversity are not preserved.

### **Yes, fossil fuels do indeed aggravate both global warming AND biodiversity loss.**

According to IPCC estimates (1), almost 2,390 giga tonnes of greenhouse gases (GHGs) have been released since the pre-industrial era. The effects of atmospheric concentrations of GHGs are manifold and particularly harmful to biodiversity: rising average temperatures, changes in precipitation patterns, development of extreme weather phenomena, oxygen depletion, acidification of aquatic environments, etc. Most GHG emissions come from fossil fuels, either because of the way they are used (predominantly for power generation or transport), or because of the way they are extracted. And when it comes to so-called "unconventional or controversial" fossil fuels (tar sands, shale oil and gas, coal gas, deepwater drilling, mountain top removal – a coal extraction method responsible for the destruction of more than 500 peaks since 1980), the impacts are highly significant, both on the climate and on living organisms.

Ecosystems are altered by climate change, even though they mitigate its effects (carbon storage in biomass, dissolution of CO<sub>2</sub> in seawater). Climate change and the erosion of biodiversity thus amplify each other through a negative or positive feedback loop, making ecosystem protection and restoration measures virtuous, both for the climate and for ecosystems.

### **Climate change remedies that harm biodiversity**

In the Net Zero Emissions (NZE) scenario, global CO<sub>2</sub> emissions from energy and industrial processes fall by almost 40% by 2030, to reach neutrality by 2050, thanks to a drastic reduction in fossil fuels and an increase in renewable and alternative energies (wind turbines and solar panels, hydrogen, bioethanol, etc.).

To replace hydrocarbons and meet its 2050 targets, however, the European Union will need a considerable quantity of rare metals (35 times more lithium than today, twice as much nickel, + 330% cobalt, + 35% aluminium and copper), which are essential for tomorrow's equipment

(electric cars, wind turbine rotors, storage units, etc.) (2).

However, the low metal content of ores, combined with extraction methods that consume water and chemical additives, generate waste that is hazardous to water and soil (3). Climate mitigation strategies based on wind or water, which require dedicated infrastructure, large-scale reforestation or bioenergy plantations (bioethanol) are accompanied by underestimated collateral damage: change in land use, competition for resource use, change in ecosystems, etc.

It is therefore crucial to analyse the use of alternative energies, taking into account their overall footprint. The twin crises of climate change and biodiversity loss are two of the biggest challenges and risks facing human societies today.

### Why is preserving biodiversity a key issue for investors?

More than half of the world's economic output depends on biodiversity to a greater or lesser extent. As a result, biodiversity loss is a major threat to human livelihoods, food security (35% of the world's food production depends on pollination) and public health.

As responsible investors, our role is to identify the economic projects most likely to generate sustainable performance. We analyse the impact of climate change and biodiversity loss for each sector and issuer, integrating the risks that these "externalities" may pose to their development trajectory.

At Ostrum AM, to address these issues in our investment strategies, we apply a first "filter" by means of exclusion policies concerning "severe" controversies, backed by UN principles on the environment or human rights. These policies apply to all the portfolios we manage. We also use sectoral policies which, on the basis of in-depth analyses, assess the impact of economic activities on climate and biodiversity. This is the case for coal, oil and gas, for example.

As shareholders or holders of corporate debt, investors can significantly influence practices to encourage companies to integrate climate and biodiversity into their growth strategy. Engagement is a particularly powerful lever for identifying with companies – by prioritising the most sensitive sectors (agri-food, construction, automotive, etc.) –, the pressure they exert on the climate and ecosystems and, in parallel, the risks that climate change and damage to biodiversity pose to their business. The automotive sector is particularly emblematic, since engagement is possible across the entire production chain, from raw material suppliers through to recycling. The prerequisite for an asset manager, however, is to have highly specialised and experienced research teams.

## After climate, biodiversity: the regulatory accelerator

Since 2021, the SFDR (4) regulation has required financial players to disclose the "sustainability" of their portfolios, and Article 29 of the French Energy-Climate Law goes beyond European regulations, specifying transparency requirements, particularly on risks relating to climate change and biodiversity erosion.

The Green Taxonomy is expected to go a step further, with the obligation to assess each economic activity in terms of its alignment with the objective of "protecting and restoring biodiversity and ecosystems".

The finalisation of the TNFD's work (5), expected in the third quarter, should also help companies and financial institutions better identify nature-related risks and opportunities. Indeed, the problem remains in terms of available data and its comparability on a subject where all players – issuers and investors – are still on a learning curve, given its complexity and multi-factorial nature.

## Towards "price of life" accounting

Companies are not yet paying the price for the services rendered by nature, nor for the pressures they exert on it. It's a safe bet that negative externalities will be accounted for in the years to come, to put a value on the destruction wrought on the climate and nature. This would change the profitability and financial profile of many industries and sectors.

Written on 23/05/2023

<sup>1</sup> GIEC 6<sup>th</sup> evaluation report, published 9 August 2021

<sup>2</sup> *Metals for Clean Energy : Pathways to solving Europe's raw materials challenge*, KU Leuven

<sup>3</sup> <http://www.systext.org/> rapport d'étude Controverses minières volet 1 et volet 2

<sup>4</sup> SFDR - Sustainable Finance Disclosure Regulation

<sup>5</sup> TNFD -Taskforce for Nature-related Financial Disclosures, biodiversity equivalent of TCFD – Taskforce for Climate-related Financial Disclosures.

## Additional notes

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