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WHITE PAPER

# BIODIVERSITY

## Investing in the challenge of life

“

Biodiversity is life insurance for our planet.

**António Guterres**

**Secretary-General of the United Nations**



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# CPRAM AND ENVIRONMENTAL CHALLENGES

**Arnaud Faller**
Deputy CEO and
Chief Investment Officer
of CPRAM

CPR Asset Management (CPRAM) firmly believes that financial institutions have a decisive role to play in steering the economy towards a more sustainable model. Channelling capital is essential to addressing environmental challenges. This conviction led us, in 2018, to launch our first investment strategy dedicated to climate issues. Today, we offer a comprehensive range of environmental solutions, representing €9.8 billion in assets under management[1], with climate strategies covering major asset classes and global regions, alongside our first biodiversity-focused strategy investing in international equities.

Our decision to broaden our scope to include biodiversity conservation echoes another stark scientific reality: with one million species facing extinction[2], nature loss ranks alongside climate change as one of the major challenges of our time.

The time for diagnosis has passed; the need now is for concrete action. This white paper presents our approach. Rather than focusing solely on companies offering products or services that minimise negative impacts on nature, CPRAM seeks to support the transformation of all companies—particularly those operating in sectors with a significant environmental footprint. The reasoning is clear: biodiversity affects the entire economic fabric, and the whole economy must undertake this transition.

Our methodology, structured around four stages—targeted exclusions, preferential allocation, selection of transition leaders and ongoing engagement—reflects this systemic reality. The aim is to identify investment opportunities that incorporate the preservation of nature in all its complexity.

This approach is the result of extensive collaborative work involving analysts, research teams, strategists, portfolio managers and external experts. More than 18 months of development have combined the scientific expertise of the Muséum national d'Histoire naturelle (France's Museum of Natural History) with our financial and extra-financial capabilities.

At the same time, the complexity of biodiversity issues and the analytical challenges they pose have made training and awareness-raising indispensable. More than 90% of our employees have taken part in the Fresque de la Biodiversité (Biodiversity Collage), and we are expanding educational initiatives with our distribution partners and clients.

> It is crucial to facilitate understanding of these complex issues to develop investment that favours biodiversity.

This white paper forms part of this broader educational effort. By sharing the outcome of this collaborative work, we hope to address the legitimate questions of investors and companies seeking solutions.

1. Data as at 30/09/2025.
2. IPBES, 2019, Global Assessment Report on Biodiversity and Ecosystem Services.



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# Preamble

## Laying the foundations for a biodiversity strategy

Seventy-three per cent of wild animals have disappeared over the last 50 years.[3] Seventy-five per cent of terrestrial environments have been altered. And an estimated $200 billion in annual funding[4] is required to reverse the trend. These staggering figures highlight the urgency of action—but they also present unprecedented methodological challenges for economic and financial stakeholders.

While climate change is now well understood by investors and asset managers, biodiversity is far more difficult to grasp. There is no single indicator equivalent to greenhouse gas emissions that captures impacts on living systems. Interactions between ecosystems, food webs and ecosystem services form a complex network that challenges traditional approaches to financial analysis.

This complexity helps explain why the financial sector has been slower to address the issue. However, ecological urgency and rising expectations from stakeholders now make action indispensable. Reporting obligations for institutional investors and companies, ambitions to integrate biodiversity pressures and dependencies into strategies, and growing expectations from individual investors all contribute to this shift. Properly accounting for biodiversity requires robust, sector-specific methods. From agri-food to digital technology, from healthcare to real estate, every industry depends on ecosystems—and often exerts direct pressure on them.

Translating heterogeneous datasets and academic research into operational investment criteria demands multidisciplinary work and a collaborative approach. Above all, it requires humility, recognising that methodologies must evolve continually as scientific knowledge advances.

For investors, the challenge goes beyond financial performance alone. This is the rationale behind CPRAM's approach: to build portfolios designed to reconcile profitability with improved preservation of the ecosystems on which the global economy depends. The aim is to direct capital towards the most exposed and most committed companies, prioritising dialogue and engagement rather than systematic exclusion.

Why is biodiversity so critical for the economy? How are regulators, scientists and investors responding to these challenges? What tools exist to measure complex biodiversity-related impacts and dependencies? What investment methodology is appropriate? And how can financial performance be reconciled with environmental impact? This white paper presents CPRAM's approach to answering these crucial questions.

Developed through extensive collaboration across CPRAM teams, this publication also includes contributions from Romain Julliard, Ecologist at the Muséum national d'Histoire naturelle (France's Museum of Natural History), and Virginie Wauquiez, President of Carbon4 Finance. Its purpose is to share a robust methodology—one that will continue to evolve—to shed light on the legitimate questions raised by professionals, and ultimately to contribute to the collective effort to structure biodiversity investment.

3. WWF, Living Planet Report 2024.
4. Convention on Biological Diversity - CBD, 2022, Technical report - Global Biodiversity Framework

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# 1. Biodiversity: a global emergency, and a systemic challenge

## 1.1. Nature in the balance: a silent crisis of staggering proportions

Put simply, biodiversity can be understood as nature—the living world. More precisely, the concept encompasses all natural environments and forms of life (animals, plants, fungi, bacteria, etc.), as well as the relationships and interactions that connect them. This living fabric is made up of genetic, species and ecosystem diversity. Together, they form the foundation of all life on Earth and have supported its evolution for more than 3.8 billion years: oxygen, fresh water, food, pollination, climate regulation, erosion prevention, and more.[5]

This extraordinary natural wealth is now undergoing an unprecedented crisis. Available scientific data reveal a dramatic acceleration in its degradation: 75% of terrestrial ecosystems are significantly altered and over 85% of wetlands have been destroyed.[6] More than 40% of amphibian species, nearly one-third of coral reefs, and over one-third of all marine mammals are threatened.[7] The scale of this collapse—which has intensified sharply over the past 50 years[8]—places one million animal and plant species, or one in eight, at risk of extinction in the near term. The sixth mass extinction[9] stands apart from previous ones in two fundamental ways: its exceptional speed—the extinction of the dinosaurs unfolded over several hundred thousand years—and its human origin, as the phenomenon is almost entirely attributable to human activities.

Five major, interconnected pressures[10] are driving this decline:

Destruction and artificialisation of natural environments (conversion of natural habitats into agricultural, urban or industrial land; intensive resource exploitation)

Overexploitation of natural resources and illegal trade (overfishing, excessive hunting, illegal wildlife trade, etc.)

Global climate change (drought, wildfires, floods, ocean acidification, etc.)

Pollution of oceans, freshwater, soils and air

Introduction of invasive alien species

### Key figures on natural loss

**100 million**
hectares of fertile land are degraded each year through land artificialisation—an area equivalent to twice the size of Greenland[11]

**34%**
of coral mortality on the Great Barrier Reef is attributable to extreme climate events[12]

**100.000**
marine mammals die every year as a result of plastic pollutione[13]

5.Muséum National d'Histoire Naturel - https://www.mnhn.fr/fr/quand-est-apparue-la-vie-sur-terre - 6. IPBES, 2019, Global Assessment Report on Biodiversity and Ecosystem Services - 7. IPBES, 2019, Global Assessment Report on Biodiversity and Ecosystem Services - 8. WWF, 2022, Living Planet Report - 9. Richard Leakey and Roger Lewin, The Sixth Extinction (Flammarion, 1997) - 10. IPBES, 2019, Global Assessment Report on Biodiversity and Ecosystem Services - 11. United Nations, 2024 - 12. Australian Institute of Marine Science, August 2022 https://www.aims.gov.au/sites/default/files/2022-08/AIMS_LTMP_Report_on%20GBR_coral_ status_2021_2022_040822F3.pdf - 13. WWF, June 2023.



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## 1.2. Systemic complexity: local and global impacts

The erosion of biodiversity generates immediate, local impacts on communities and their ecosystems. The collapse of pollinator populations, for example, directly threatens European food security, where 84% of crops depend on animal pollination.[14] Another example is the degradation of mangroves in the Indian Ocean, exposing coastal populations to storms and destroying fish nurseries essential to fishing communities.

This territorial specificity fundamentally distinguishes biodiversity issues from those of climate change. Unlike a tonne of carbon dioxide—which has uniform effects on the global climate system—biodiversity impacts vary from one region to another, depending on each territory's unique combination of species, soils and climatic conditions. Biodiversity manifests through a complex network of interactions that link the diversity of ecosystems (oceans, grasslands, forests, wetlands), the diversity of species, and the genetic diversity within populations. These interconnections closely tie together climate, public health, food security and water resources, in configurations unique to each ecosystem.

Local biodiversity impacts therefore have global repercussions. Terrestrial and marine ecosystems provide humanity with a set of ecosystem services essential to survival. These natural contributions fall into four broad categories[15]:

- Regulating services, which maintain planetary balances: climate regulation, air and water purification, and more
- Provisioning services, which supply tangible resources: food, raw materials, medicinal compounds
- Supporting services, which underpin ecosystem functioning: photosynthesis, nutrient cycles, soil formation
- Cultural services, which enrich human experience: aesthetic values, spiritual and cultural heritage linked to nature.

These interdependencies shape all economic activity—from agricultural supply chains, which rely on pollinators and soil-regenerating organisms, to the pharmaceutical industry, which sources many active compounds from biodiversity.

### Services provided by biodiversity

**Food**

**20%**

of global animal-protein consumption comes from fish[16]

**Natural resources**

**70%**

of medicines and anticancer treatments are derived from nature[17]

**Ecosystem services**

**50%**

of $CO_2$ emissions from human activities are absorbed by soils and oceans[18]

14. French Ministry for the Ecological and Inclusive Transition, EFESE, 2016 - 15. WWF, Living Planet Report, 2016 - 16. OECD, Environment at a Glance, 2015.- 17. IPBE et IPCC, Biodiversity and Climate Change, Workshop Report, 2020 - 18. https://www.strategie.gouv.fr/point-de-vue/services-rendus-biodiversite-ecosystemes-prise-compte-politiques-publiques

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## 1.3. Economy under pressure: the hidden costs of nature loss

It is estimated that more than half of global Gross Domestic Product (GDP) depends on free ecosystem services.[19] This creates systemic vulnerability to environmental disruption. Such dependence exposes economic actors to risks linked to their reliance on ecosystem services, as well as to transition risks for activities required to reduce their negative impact on nature.

The erosion of biodiversity is already generating exponential costs. Industrial, agri-food, pharmaceutical and tourism sectors are experiencing growing disruptions: supply chain instability, rising costs, and increasingly stringent regulation. A 2020 WWF study, conducted with the Global Trade Analysis Project, predicts annual value losses of USD 479 billion until 2050—amounting to nearly USD 15 trillion in cumulative losses, equivalent to the combined GDPs of the United Kingdom, France, India and Brazil. The bill breaks down as follows: coastal degradation (USD 327bn), forest decline (USD 128bn), agricultural water stress (USD 19bn) and the collapse of pollinator populations (USD 15bn).[20] These threats are generating unprecedented systemic financial risks that are reshaping institutional investors' risk maps.

> Preserving biodiversity is therefore an essential economic priority—especially given that half of global GDP depends on services provided free of charge by nature. If no action is taken, an estimated USD 500 billion per year will be required globally to halt nature loss. This is why we believe that asset management companies have a key role to play in financing businesses that recognise that protecting and restoring nature is fundamental to their long-term development.

**Rodolphe Taquet, CIIA**

Senior Portfolio Manager and Director of Quant Projects, New Territories

19. World Bank, December 2022, "Preserving biodiversity to protect our future". - 20. WWF & Global Trade Analysis Project, Global Futures Report, 2020.



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# 2. Mobilisation: regulatory frameworks and awareness within the financial sector

## 2.1. Building an international regulatory architecture: from Rio to Montréal

Over the past decades, biodiversity has gradually emerged on the international agenda through three major global agreements: the Convention on Biological Diversity, signed by 196 countries at the Rio Earth Summit, which established the first legal foundations (1992); the Cartagena Protocol (1998); and the Nagoya Protocol (2010).[21]

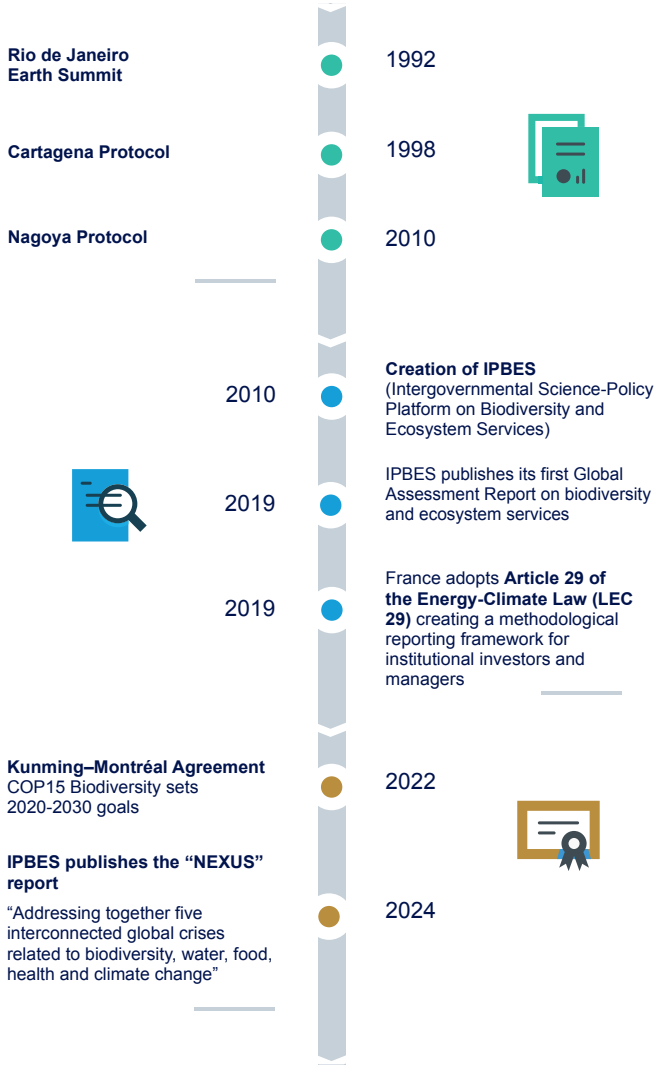
But the real turning point came with the 2022 Kunming–Montréal Agreement. At COP15, countries adopted the Global Biodiversity Framework (GBF) for the 2020–2030 decade, establishing—for the first time—binding global targets: protecting 30% of land and sea areas and restoring 30% of degraded ecosystems, compared with 17.5% of land and 8.5% of marine areas protected in 2024.

COP15 also set ambitious financial commitments: mobilising at least USD 200 billion per year for biodiversity protection by 2030. Among the 23 concrete targets that form an operational roadmap, eight concern the financial sector directly. These include reducing pollution and pesticide risks (Target 7), addressing climate-related threats (Target 8), promoting sustainable agricultural and forestry management (Target 10), developing nature-based urban projects (Target 12), integrating biodiversity into economic processes (Target 14), publishing nature-related impacts (Target 15), encouraging sustainable consumption (Target 16) and mobilising dedicated financing (Target 19).[22]

In parallel, despite the still limited maturity of biodiversity reporting practices, several voluntary initiatives are accelerating financial sector engagement. Since 2020, the Finance for Biodiversity Pledge has mobilised financial institutions in support of ecosystem restoration.

The Taskforce on Nature-related Financial Disclosures (TNFD) has, since September 2023, been publishing recommendations to help economic actors identify, assess, manage and disclose nature-related risks and opportunities. The Science Based Targets Network (SBTN) provides financial institutions with a scientific methodology to set targets for reducing their nature footprint and contributing to ecosystem restoration.[23]

International mobilisation timeline




21. Convention on Biological Diversity, 1992; Cartagena Protocol, 1998; Nagoya Protocol, 2010. - 22. Kunming–Montréal Global Biodiversity Framework, 2022.- 23. TNFD Recommendations, 2023; Finance for Biodiversity Pledge, 2020; SBTN

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## 2.2. From science to investment: the essential role of IPBES

Created in 2010 by 94 governments, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES[24]) is the international body of experts tasked with assessing the state of global biodiversity.[25] Often referred to as the "IPCC for biodiversity", IPBES serves as an interface between the scientific community and policymakers. It provides the scientific foundations needed for economic and financial actors to take action on nature-related issues.

In May 2019, IPBES published its first Global Assessment Report on biodiversity and ecosystem services. Drawing on 15,000 scientific and governmental sources, this landmark assessment provides investors with essential evidence for evaluating nature-related risks and opportunities.

In December 2024, two years after the adoption of the Kunming–Montréal Global Biodiversity Framework, IPBES published the report "Addressing together five interconnected global crises related to biodiversity, water, food, health and climate change". Known as the Nexus Report, this technical publication offers a practical, action-oriented toolkit that investors can directly apply, helping them understand systemic interconnections. Identifying 70 organisational, policy and economic levers to address these crises in an integrated way, the report translates scientific complexity into operational recommendations accessible to companies and asset managers.[26]

## 2.3. The awakening financial sector: driving regulation and evolving expectations

Interest in biodiversity across the financial sector is still relatively recent. One study shows that in 2023, central banks mentioned climate change 10 times more often than biodiversity—despite a sharp rise in biodiversity references since 2017.[27]

In France, Article 29 of the Loi Énergie-Climat (Energy-Climate Law, LEC 29) has been the main catalyst for the increase in awareness.[28] Since 2019, it has required financial institutions and investment funds to publish biodiversity disclosures, including an assessment of their portfolios' exposure to nature-related risks and their alignment with international preservation targets.

This shift has revealed diverging needs among stakeholders: institutional investors are focused on regulatory compliance, risk measurement and sustainable alpha; companies are seeking operational solutions to support their environmental transition; and individual investors want to understand the impact of their investments.

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> Regulation plays a decisive role in shaping investor thinking. In France, LEC 29 has had a major impact. It requires companies to define both a climate and biodiversity policy. By encouraging the development of action plans, it has pushed companies to reflect on their purpose and their responsible investment strategies.

**Noémie Hadjadj-Gomes**
Chief Responsible Officer & Head of Investment Expertises & Solutions

24.Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) - 25. IPBES — Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, 2010 - 26. IPBES, Nexus Report, December 2024 - 27. https://cpram.com/fra/fr/particuliers/publications/experts/article/banques-centrales-et-biodiversite - 28. French Energy-Climate Law, Article 29



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Because environmental risks are exerting increasing pressure on their business models, insurers face specific challenges. Their dual exposure makes them particularly vulnerable:

— as investors, they hold portfolios that are exposed to environmentally sensitive or nature-dependent sectors;

— as insurers, they cover physical risks that are intensifying with natural disasters, droughts and floods.[29]

This vulnerability explains their close attention to the Solvency II Directive, which governs capital requirements and risk management for European insurers, and has progressively integrated environmental risks—initially climate risks, then biodiversity risks, since 2024.[30]

Similarly, the approach developed by the European Insurance and Occupational Pensions Authority (EIOPA) focuses on managing systemic risks. In November 2024, the authority launched a public consultation on the integration of biodiversity risks into its Own Risk and Solvency Assessment (ORSA)[31], accompanied by a series of structural programmes. The fact that 30% of insurers' activities strongly depend on at least one ecosystem service underscores the need for rigorous assessment of these emerging risks.[32]

Other approaches—more collaborative and incentive-based—are also encouraging progress. The revised Tibi 2 initiative illustrates this pragmatic stance: by allowing investors to count climate and biodiversity funds towards their ministerial commitments, it creates positive incentives that go beyond mere regulatory compliance. In the same vein, the French financial market's "Objectif Biodiversité" initiative brings stakeholders together around a voluntary, collective framework that prioritises support over sanction.[33]

29. Analyse des risques assureurs, sources internes CPRAM - 30. Réglementation Solvabilité 2, Union Européenne - 31. EIOPA, consultation publique ORSA biodiversité, novembre 2024 - 32. EIOPA, Report on biodiversity risk management by insurers, juin 2025 - 33. Initiative Objectif Biodiversité, place financière française

## CENTRAL BANKS AND BIODIVERSITY

# 3 QUESTIONS with Juliette Cohen, CPRAM Strategist

### How are central banks approaching biodiversity-related risks?

They are gradually integrating nature-related risks into their financial-stability mandates. A growing number are now applying the concept of double materiality, assessing both the vulnerability of financial institutions to biodiversity-related risks and their contribution to ecosystem degradation. The Dutch central bank has been a pioneer in this field: as early as 2020, it developed the first assessment framework—an ecosystem service degradation sensitivity indicator (EDSI) that combines sectoral data, supply-chain mapping, and measurements of environmental decline.

### Have there been concrete assessments of these risks?

Several major studies have shed light on the scale of the challenge. In 2021, the Banque de France revealed that 42% of the securities portfolios held by French financial institutions depend heavily on at least one ecosystem service. The European Central Bank reported an even more striking figure: 72% of businesses in the euro area—around three million entities—present a critical dependence on ecosystem services and are likely to face significant economic disruption as ecosystems continue to deteriorate.[34]

### What are the next steps towards addressing nature-related risks?

In 2024, the Network for Greening the Financial System (NGFS), now comprising 180 entities, published an expanded conceptual framework on nature-related financial risks. It is designed to clarify how ecosystem degradation affects economic growth and inflation. As part of its oversight of financial institutions, the NGFS is encouraging the development of stress tests to gauge banks' resilience to environmental risks. And the first nature-focused exercises are already underway.

In summer 2025, the European Central Bank went a step further, announcing its intention to integrate nature loss into its monetary-policy framework—just as it has already done with climate change. Given the accelerating degradation of ecosystems and the amplification of systemic risks, it appears that monetary authorities cannot avoid paying careful attention to biodiversity issues.

**Juliette Cohen**

CPRAM Strategist

34. Economic impacts of nature degradation and biodiversity loss, ECB, Economic Bulletin No. 6/2024.



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# 3. Biodiversity data: measurement as the foundation for transparency and continuous improvement

## 3.1. The measurability challenge

### The absence of a single, universal metric

> The living world is extraordinarily diverse: there are 500 tree species in a single square kilometre of tropical forest, thousands of insect species across just a few square kilometres in Europe, and 1,000 bacterial species in a single cubic centimetre of soil. This diversity is distributed unevenly across the planet, with many species confined to narrow geographic ranges—so-called endemic species.
>
> Source:
>
> **Muséum national d'Histoire naturelle**
>
> (France's Museum of Natural History)

Human activity directly affects this biological richness. Deforestation destroys natural habitats and fragments ecosystems. Water pollution contaminates animal and plant species. Intensive land use degrades soil fertility and its capacity to sustain life. To thus address biodiversity, its three interconnected dimensions must be incorporated: [1] genetic diversity, [2] species diversity, and [3] ecosystem diversity.

Unlike greenhouse gas emissions, which can be aggregated globally into $CO_2$-equivalent using their warming potential, nature-related impacts cannot be reduced to a single metric. Companies exert pressures on biodiversity in multiple ways: through water consumption and the use of other natural resources, land-use impacts, pollution discharged into air and water, and waste generation. The complexity increases when a single entity simultaneously preserves certain species while degrading soil quality or water resources. Each sector also exhibits its own distinct risk profile. Agri-food industries exert major pressures on land and water resources, whereas the healthcare sector contributes pollution linked to pharmaceutical substances released into wastewater, for example.

> This diversity of impacts requires the development of sector-specific analytical frameworks capable of capturing industrial specificities, and weighting different types of impacts according to their severity and geographic context.

### Local data versus global challenges: the aggregation dilemma

Biodiversity has a strong territorial dimension that makes it difficult to assess. The impact of an industrial activity on a local ecosystem may cause significant consequences at the regional scale without necessarily producing meaningful global indicators. Conversely, practices that seem minor locally may, once aggregated globally, represent considerable pressures on planetary biodiversity.

This tension between local and global scales complicates the assessment of companies operating internationally. How can one compare the impact of a firm active in high-biodiversity regions with that of a company operating mainly in already degraded or heavily urbanised areas? How should each territory's different ecological value be integrated into analysis?

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### The heterogeneity of sources and methodologies

In contrast to climate data—largely standardised through international protocols—biodiversity data originate from a wide array of actors with complementary approaches: research institutions, environmental NGOs, ESG data providers, and sector-specific initiatives.

This heterogeneity of sources, methodologies and levels of maturity offers advantages, such as the ability to compare methods and reduce biases, but it also complicates analysis. It requires constant work on data cleaning, cross-checking and harmonisation.

## 3.2. The data-provider ecosystem: consolidating diverse approaches

Regulatory reporting has become a primary source of information for investors and asset managers.[35] Under the European Corporate Sustainability Reporting Directive (CSRD), companies must now disclose their biodiversity impacts annually—although the precise implementation rules, including the number and exact nature of required indicators, still need to be confirmed. In parallel, investors are developing their own questionnaires to obtain the data needed for their analyses. These sources have the advantage of being tailored to each manager's specific requirements, and provide access to companies' concrete policies and commitments. However, the heterogeneity of reporting methodologies and the differing levels of maturity across companies necessitate substantial standardisation efforts.

Among the dedicated databases, the Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE) tool enables managers to conduct an initial high-level screening of their biodiversity impacts and dependencies.[36] This sector-level database helps identify significant environmental pressures across portfolios, though it does not offer company-level granularity, requiring additional complementary analyses.

35. Read more about this on page 9 - 36. https://www.encorenature.org



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INTERVIEW

## Virginie Wauquiez,
President of Carbon4 Finance

*Carbon4 Finance supplies data to CPRAM teams and to the Amundi group, notably for the CPR Invest – Biodiversity fund. Virginie Wauquiez discusses the challenges posed by biodiversity data and the approaches available today.*

### What are the main challenges investors face when interpreting biodiversity data?

Companies today disclose a large volume of information, but comparing this data across metrics is difficult due to varying scopes and differing methodologies. Unlike climate, where GHG emissions provide a standardised and fungible metric, biodiversity is intrinsically complex, with highly localised impacts and cascading effects that are difficult to model.

This is precisely where Carbon4 Finance intervenes: we develop harmonised methodologies and systematically recalculate company-reported data to ensure the level of comparability required for investment decisions, financing, and index or fund construction. Our bottom-up approach starts from company-specific indicators—financial data, production metrics, raw-material consumption, etc.—to produce robust carbon and biodiversity assessments.

### Which methodology do you use to address the complexity of biodiversity measurement?

Our methodology is based on the Global Biodiversity Score (GBS), developed in partnership with CDC Biodiversité since 2019. We draw on companies' extra-financial data—revenues by country and sector—then use public tools such as Exiobase to calculate biodiversity-related parameters.

In practical terms, we consider thirteen major terrestrial and aquatic pressures, including land-use change, wetland conversion, hydrological disturbance, ecotoxicity, climate change and encroachment. These pressures cover four of the five drivers of biodiversity loss identified by IPBES. As with greenhouse gas emissions, we distinguish impacts according to scopes 1 (direct), 2 (indirect, energy consumption) and 3 (indirect, upstream and downstream).

The various parameters are then converted into impacts on ecosystem integrity, measured in MSA.km². This surface-based measure of biodiversity integrity captures both static impacts—historic pressures exerted by an entity—and dynamic impacts year by year. We also provide intensity indicators expressed per million euros of revenue or investment. Our database currently covers 8,000 companies, with the ability to extend coverage to any entity for which the necessary fundamentals are available.

### How can scientific rigour be reconciled with investors' operational needs?

We remain fully aware of the inherent limitations of biodiversity assessment. The challenge lies above all in identifying the major risk areas, in terms of both impact and dependency. We therefore develop scores to assess physical risks. The aim is not to claim absolute precision, but to provide a global and critical perspective that highlights where companies are most exposed.

This pragmatic approach, combined with essential transparency on the strengths and weaknesses of the methodologies used, enables investors to make informed decisions.

**Virginie Wauquiez**
President of Carbon4 Finance

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These broad sector-level approaches are complemented by more granular methods. The Global Biodiversity Score (GBS), developed by CDC Biodiversité, stands out for its ability to establish a direct quantitative link between a company's activities or value chain and its impacts on biodiversity. The GBS notably provides a standardised unit of measurement—the MSA.km² (Mean Species Abundance relative to the affected area)—which describes ecosystem integrity in a way that is comparable across companies and sectors.[37] For example, the impact of an agricultural operation can be measured through soil artificialisation, reflecting impacts on plants, insects and birds compared with their natural state.

This quantitative approach is further enhanced by Biodiversity Impact Analytics powered by the Global Biodiversity Score™ (BIA-GBS™), co-developed by Carbon4 Finance and CDC Biodiversité, which broadens the analysis to include investment portfolios' dependencies on ecosystem services.

## 3.3. From data collection to analysis

Drawn from various sources, and presented in differing formats, units and scopes, biodiversity data requires thorough processing. Methodological choices that are clear, transparent and well-documented must be made when combining different sorts of impacts, integrating quantitative data with qualitative assessments, and filling in information gaps without introducing bias. A cautious approach is therefore essential—one that prioritises methodological soundness over an illusion of precision, and that aims to build indicators that are easy to use, robust, and capable of capturing the complexity of the issues at stake.

In this context, CPRAM structures its approach around three complementary pillars: land, water and climate. This three-dimensional framework captures the main pressures on biodiversity while maintaining operational clarity. And it is applied through eight indicators that include waste-recycling rates, water intensity, carbon intensity, and the share of renewable energy in the energy mix.[38]

37. See example on this topic on page 22.
38. See also the discussion on this topic on page 21



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CAS

# Focus on Carrefour's strategy to measure and reduce its impact on biodiversity

International retailer Carrefour shows how a rigorous approach to collecting and analysing biodiversity data can form the basis of an operational, measurable corporate strategy. Launched in 2018, Carrefour's "Act for Food" programme is built on a scientific framework for quantifying impacts. This has made it possible to identify key levers for action and set quantified targets.

## Governance & oversight

- Strengthen governance (Forest Committee, Board of Directors involvement, senior leadership training).
- Integrate biodiversity objectives into the CSR and Food Transition index.
- Link CSR/biodiversity performance to executive and employee remuneration.
- Mobilise stakeholders and investors to accelerate sustainable practices.

## Measurements & monitoring

- Measure and track the Group's biodiversity footprint (Corporate Biodiversity Footprint, SBT for Nature membership).
- Map impacts and dependencies by business activity and geographic area (priority regions: France and Brazil).
- Integrate audited biodiversity indicators, monitored annually via the CSR index.
- Implement geo-monitoring tools to detect deforestation risks and activate reporting protocols.

## Examples of actions

- Reduce pressures linked to animal-based products and eliminate sourcing from high-deforestation areas.
- Deploy partnerships and binding agreements with suppliers: sustainable farming practices, traceability, and packaging reduction.
- Promote sustainable agriculture, protect sensitive raw materials, and eco-design packaging (deposit-return systems, circular-economy practices).
- Reduce food waste: optimise procurement, promote short-shelf-life products, and expand anti-waste partnerships.

To learn more about Carrefour's strategy, see the interview with Carine Kraus, Executive Director of Engagement and member of the Executive Committee of Groupe Carrefour, in the latest CPRAM sustainability report.

**Available on our site at www.cpram.com**

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SHARING PERSPECTIVES

# The *Muséum national d'Histoire naturelle*: a decisive CPRAM partner

*At the start of its biodiversity endeavour, CPRAM sought to work alongside leading scientific experts. It thus chose to collaborate with the Muséum national d'Histoire naturelle (France's Museum of Natural History) to develop its biodiversity investment methodology and move beyond purely technical approaches by integrating the full complexity of environmental issues. Romain Julliard, Ecologist at the Muséum, and Rodolphe Taquet, CIIA and Senior Portfolio Manager of the CPR Invest–Biodiversity fund at CPRAM, discuss this innovative form of collaboration.*

## How did the collaboration between the two organisations take shape?

Romain Julliard - The Muséum partners with the private sector in an R&D capacity, through joint development and mutual learning rather than as a service provider under a standard contract. The end result rests with CPRAM, but for us it is an opportunity to continue to delve into specific questions and seek answers. We do this because we are convinced that the environmental transition cannot be achieved without the financial sector's active participation.

Rodolphe Taquet - CPRAM came to the partnership with its financial expertise. Over the years we had developed strong climate capabilities, but biodiversity was far less familiar to us given its extraordinary complexities. We saw the need to bring together our overarching philosophy and more technical work with the Muséum's expertise.

R.J. - CPRAM proposed an interesting and genuinely effective working method. In practice, CPRAM's teams would advance on specific themes. Then, over the course of around seven or eight meetings spread over roughly two years, they would present their findings, creating the conditions for a true dialogue on the substance of the approach.

## Wat were the Muséum's concrete contributions to CPRAM's methodology?

R.T. - One of the first contributions concerned the overarching philosophy of our approach. Investment funds often tackle the topic through "solutions." The Muséum explained that focusing exclusively in this way would be ineffective. This led us to favour Transition approaches (via the scaling up of best practices that reduce environmental pressures) and to integrate, on a case-by-case basis, Solutions (companies providing products or services that help other actors avoid, reduce or restore biodiversity impacts).

R.J. - Excluding certain sectors, such as food for example, would mean overlooking essential activities and would lead to rebound effects elsewhere. A world without fossil fuels might be conceivable; a world without food is not. With that principle in mind, the task was to consider the concrete effects of investing in companies based on biodiversity and to determine the criteria that ensure investments have the greatest impact. In other words, we focused on two dimensions: financing the top biodiversity performers within each sector, and financing companies that are committed to a transition pathway, whose impact is not yet optimal but whose efforts target the most material pressures.

## What do you personally take away from this collaboration?

R.J. - I am very curious about the links between the economic world and biodiversity. It seems clear to me that institutional finance has a key role to play: I see no scenario in which we succeed without mobilising finance at some point. This was my first opportunity to meet this part of the financial world and discover its ways of thinking and its vocabulary.

R.T. - Asset managers are not, by default, biodiversity experts. Whenever we had questions, the Muséum proved extremely helpful. For example, in December, when the Nexus Report summary was published, we first worked on it internally and then turned to the Muséum to ensure we had correctly understood the IPBES requirements, and to confirm that our sector choices were appropriate.



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# 4. Investment methodology: putting science into practice

## 4.1. Combining robustness with methodological rigour

As a new and complex investment domain, without standardised data or proven methodologies, biodiversity requires those engaging with it to undertake a significant learning effort, supported by external expertise. This is why CPRAM has set up a group of biodiversity experts and reference points, and trained its teams using the Fresque de la Biodiversité (Biodiversity Collage[39]). CPRAM also has chosen to partner with the Muséum national d'Histoire naturelle (France's Museum of Natural History) to move beyond a purely financial approach, master the scientific concepts and language of biodiversity, and test methodological choices.

> We consider certain activities (fossil fuels, pesticides, etc.) to be structurally incompatible with biodiversity-preservation objectives, as they require radically different paradigms to significantly reduce their impacts.

**Rodolphe Taquet, CIIA**
Senior Portfolio Manager and Director of Quant Projects, New Territories, CPRAM

39. Read more on this topic on page 29

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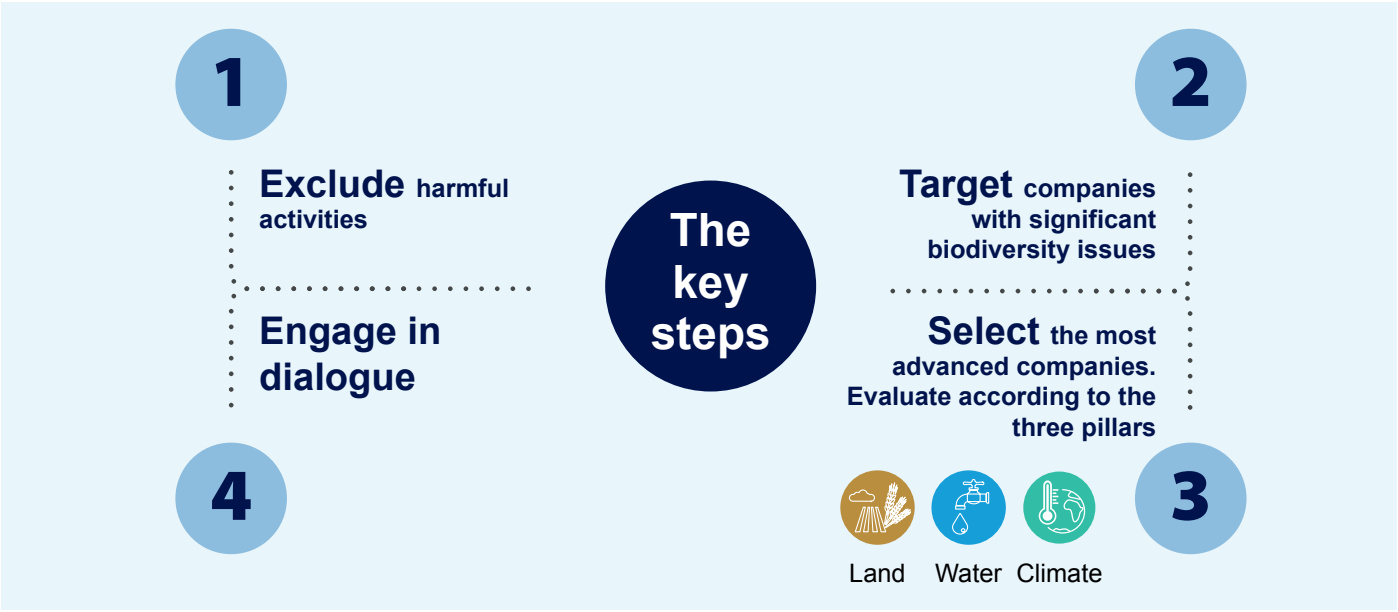
## 4.2. A four-step investment philosophy

Faced with operational realities, CPRAM pragmatically adapted the Science Based Targets Network (SBTN) framework,[40] which originally set out five targets for assessing biodiversity impacts. CPRAM's methodology is therefore structured around three core pillars:

Land, Water and Climate.

CPRAM combines the SBTN's "Freshwater" and "Oceans" targets into a single, unified "Water" pillar, while the "Biodiversity" target was not included at this stage due to insufficient market-available data. This selection also aligns with rising regulatory expectations, particularly in relation to CSRD reporting requirements.




### 1. Targeted exclusions – Eliminating harmful activities

The first step in CPRAM's methodology is to exclude companies with a highly negative environmental impact, those that may cause environmental harm, or those involved in controversial practices. The process begins with the general exclusion policy implemented by the Amundi Group as the foundation of its fiduciary responsibility. This includes normative exclusions linked to international conventions and the principles of the UN Global Compact, together with sectoral policies that specifically target unconventional hydrocarbons, tobacco and weapons.

CPRAM then applies exclusions specific to the biodiversity theme. Three main categories are targeted: poor environmental practices (forest management, water use, pollution, climate, based on CDP assessments); harmful activities (palm oil, pesticides, intensive deforestation, deep-sea mining, fossil fuels); and poor ESG practices according to Amundi's reference framework (companies involved in controversies related to water, land use, pollution, species, etc.

40. Read more on this topic on page 9.



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## 2. Sector selection – Targeting biodiversity-intensive sectors

All companies must reduce the pressures they place on biodiversity, across all economic sectors. That is the underlying reason why CPRAM has decided to hold at least 75% of its biodiversity portfolio in sectors with high biodiversity materiality. This approach—similar to the one applied to climate themes and reflected in the European Commission's climate benchmarks—follows a clear logic. That is to say, addressing the issue effectively requires investing in companies directly exposed to biodiversity challenges, and therefore capable of making significant efforts to reduce their environmental impact. However, unlike high-impact climate sectors, which benefit from a precise definition provided by the European Commission, no equivalent classification yet exists for high-impact biodiversity sectors. CPRAM's approach may therefore evolve in line with regulatory developments.

In the absence of a regulatory definition for biodiversity-intensive sectors, CPRAM relies on work led by two market initiatives: the Taskforce on Nature-related Financial Disclosures (TNFD) and the Finance for Biodiversity Foundation. CPRAM uses their primary and secondary lists of high-impact biodiversity sectors (such as automotive and pharmaceutical industries, food products, chemicals, construction materials, semiconductors, etc.)

Since these sectors account for only 40% of the MSCI World Index, coverage is expanded to include high-impact climate sectors (HICS), given the strong links between the two themes. To that end, CPRAM identifies high-impact sectors with a significant footprint (measured in MSA.ppb[41]). This evolving list notably includes agriculture, the most polluting sectors (chemicals, transport), and climate-related sectors (energy production).

.

## 3. Selection of transition leaders – Targeting the most committed companies

Building a credible biodiversity portfolio requires an evaluation methodology that can distinguish companies according to their real-world impact on nature and their capacity to transform. CPRAM applies a best-in-class approach that combines scientific rigour with operational pragmatism, enabling the identification of transition leaders within each industry segment.

### A sector-specific materiality matrix

Pressures on biodiversity vary considerably from one sector to another, meaning a uniform approach cannot adequately reflect this diversity. CPRAM's methodology is built on a materiality matrix that incorporates the biodiversity issues specific to each sector, positioning each issuer within its competitive universe (GICS Level 2 classification).

This matrix is constructed using MSA.ppb data provided by Carbon4 Finance, which aggregates footprints across eleven pressures identified by the scientific methodology. Each pressure is then mapped onto CPRAM's three-pillar framework: Land, Water and Climate. This breakdown enables a granular analysis of sector-level impacts and guides the weighting of evaluation criteria.

### A three-dimensional scoring system

The sectoral materiality matrix makes it possible to normalise issuers' positions within their respective sectors. It produces three final scores, calibrated from 0 to 1, which are comparable across companies operating in the same industry sector.

41. MSA (Mean Species Abundance) is an indicator that expresses the average relative abundance of original species compared with their abundance in undisturbed ecosystems. It is used by companies and financial institutions to measure biodiversity footprint. As an illustration, an impact of 1 MSA.km² is equivalent to the artificialisation of 1 km² of natural land (for example: a forest converted into concrete slabs).

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Complementing one another, these indicators are designed to capture the company's past and present situation as well as its potential for transformation:

**The trajectory score** assesses the company's trajectory over the past five years, capturing both efforts made and its path forward. This temporal dimension is crucial for identifying companies undergoing a positive transition, even when their current footprint remains imperfect. The analysis focuses on changes in key indicators such as waste-recycling rates, reductions in waterborne pollutants, and energy-efficiency improvements.

**The current footprint score** measures biodiversity impact at a given point in time, broken down across the three pillars. This snapshot makes it possible to evaluate a company's current environmental performance within its sectoral context, using quantifiable indicators such as pollutant emissions, use of natural resources, or impacts on ecosystems.

**The confidence score** assesses the credibility of commitments through the policies and initiatives implemented in favour of biodiversity. This forward-looking dimension examines environmental governance, reporting quality, the targets set, and the resources allocated to meeting them. It also considers certifications obtained, scientific partnerships, and participation in sector-wide initiatives.

## IN PRACTICE: EXAMPLE OF A COMPANY IN THE FOOD SECTOR

Food has been identified as the sector that exerts the strongest pressure on biodiversity, generating impacts at every stage of its value chain: deforestation, agricultural production (pesticide use and water consumption), food processing, long-distance transport, land artificialisation for retail distribution, plastic packaging, food waste, etc.

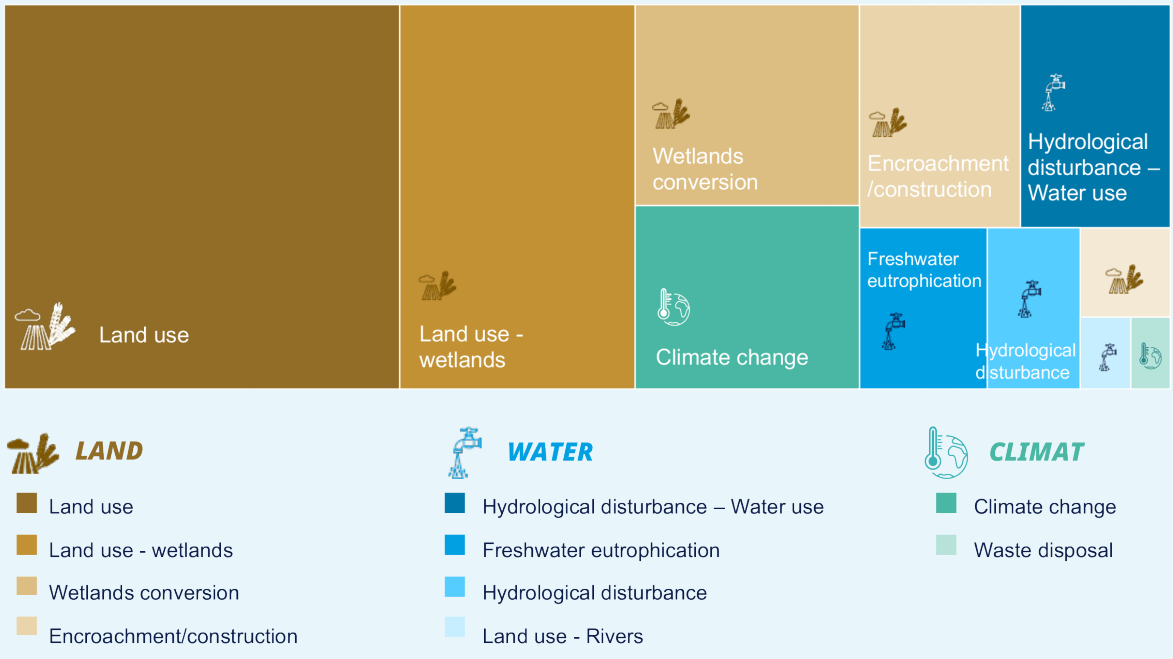
The analysis of a major player in the sector shows an overall footprint of 2210 MSA.ppb,

— with **75% attributable to the Land** pillar,

— and **12.5% respectively to the Climate** and **Water** pillars.

This distribution directly determines the weighting used in the assessment: the Land pillar is weighted at 75%, reflecting the real materiality of impacts for this sector.

Breakdown of MSA.ppb for a food-sector company[42]:




42. Source: CPRAM from Carbon4 Finance data



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## Selection by transition profile

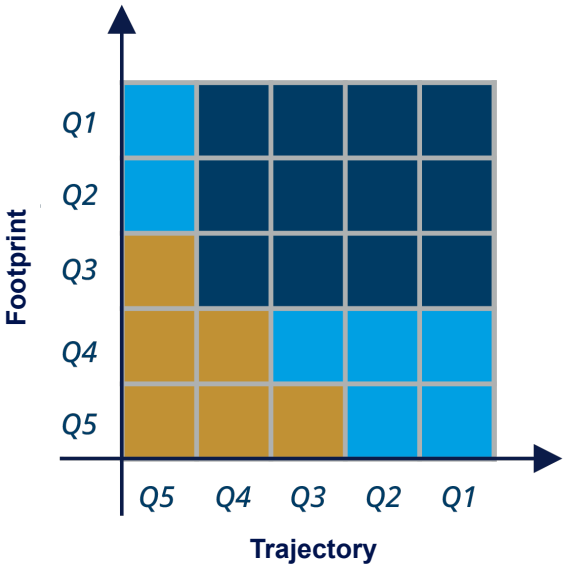
These three scores combine into a strict classification designed to identify companies eligible for investment. The footprint and trajectory scores are divided into quintiles, creating a sector-specific assessment grid from which three company profiles emerge:

— **Leaders** are well positioned within their sector in terms of both their current footprint score and their trajectory score. Demonstrating best-in-class current practices and a clear capacity for continuous progress, they are automatically eligible for investment.

— **Underperformers** show insufficient performance in both principal areas. Considered too far behind in their transition, they are systematically excluded from the portfolio—regardless of their other financial qualities.

— **Underperformers in transition** present an intermediate profile that requires a more nuanced assessment. For such companies, eligibility depends on the confidence score: if it exceeds 0.5, placing the company in the top half of its sector for the credibility of its initiatives, it may be "rescued" and become eligible. Otherwise, it is treated as an excluded company.

Decision matrix by quintile:




- Most advanced (Leaders): eligible
- Lower-performing (Underperformers), if the confidence score is above average: eligible
- Lowest-performing (Underperformers in transition): excluded

> The entire extra-financial process makes it possible to exclude more than 45% of the MSCI World Index[43] by market capitalisation. The result: a selective investment universe focused on companies that are furthest along in their environmental transition. This is a threshold broadly consistent with what is generally required by labels and supervisory authorities. The assessment is then reviewed each year to capture changes in practices and performance.

**Antoine Gougeon**
Quantitative analyst, CPRAM

43. Please see the MSCI notice in the supplementary notes.

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MANAGEMENT

# SOLUTION APPROACH versus TRANSITION APPROACH

The biodiversity strategy developed by CPRAM prioritises supporting companies across all economic sectors as they move toward more sustainable practices. However, we have also designed a methodology to identify so-called "solution" activities among companies that are already on a positive transition path but do not necessarily have a specific target or binding constraint in their management approach.

## SOLUTION

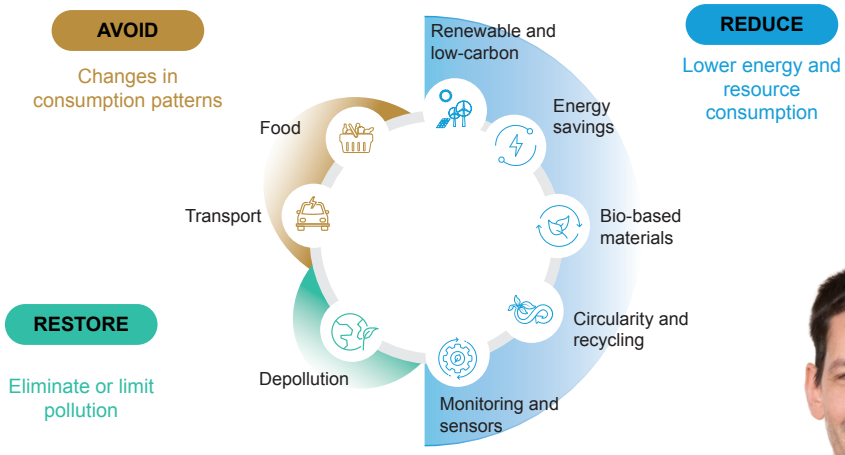
A biodiversity solution refers to any action that helps avoid harm or preserve and restore ecosystems. Certain economic activities—such as producing more plant-based crops or providing repair services—can help prevent harmful practices. These solutions enable companies to advance their transition by reducing their impact on the planet.

## TRANSITION

The transition approach consists in investing in companies that are genuinely engaged in environmental transformation. They are selected based on an analysis not of their economic activity as such, but of their practice.

| | SOLUTION ON THE WATER PILLAR | TRANSITION ON THE WATER PILLAR |
|---|---|---|
| WHO? | **Global supplier of high-tech pumps for water treatment** | **World leader in beauty products** |
| PRACTICE BIODIVERSITY | Validated | Validated |
| SOLUTION ACTIVITY | Prevented 8 billion m³ of polluted water (2023) | |
| INITIATIVES | Objective 2025: achieve zero waste to landfill to protect water quality by reducing pollutants entering groundwater and surface waters | Phase-out of PFAS to reduce risks to water quality and protect aquatic ecosystems (2024) |

Three types of solutions that limit the consequences of human activities:




> By supporting innovative activities and organisations strongly involved in nature-positive initiatives, we can not only preserve our environment but also prepare our economy for the future.

**Guillaume Pitsch**
Financial Engineer at CPRAM



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## Optimised construction and continuous monitoring

Starting from the eligible universe, the portfolio is built using a proprietary model that adjusts financial valuation factors according to market regimes. The model simultaneously integrates financial data (sector and geographic deviations from the index) and extra-financial data, giving equal weight to financial performance and improvements in environmental indicators.

The fund commits to quantified objectives for each pillar: a higher waste-recycling rate than the MSCI World for the Land pillar; lower water use than the index for the Water pillar; and reduced carbon intensity, with a greater share of companies committed to lowering their emissions for the Climate pillar. For further details, see the explanations on page 26. The approach ensures measurable and continuous improvement in the portfolio's environmental footprint, while preserving its financial performance objectives.

## 4. Shareholder engagement – Dialogue in support of the transition

Shareholder engagement, the final pillar of the methodology, is a key dimension of biodiversity investing. Direct dialogue with companies makes it possible to obtain deeper information and, more importantly, to exert direct influence on their practices with a view to achieving the identified objectives.

Drawing on the strength of the Amundi Group, CPRAM conducts shareholder dialogue with companies on biodiversity and climate themes, as well as throughout voting processes. CPRAM analysts intervene in a complementary, selective way on certain holdings, bringing their in-depth knowledge of the companies they cover.

## CPRAM's three engagement phases — a rigorous process:

1. **A comprehensive assessment of the company's situation:** its activities, operational geographies, supply chains, and its impacts and dependencies on ecosystem services.

**This preliminary diagnosis provides the teams with a precise understanding of the business model and the specific issues facing each company.**

2. **A direct dialogue is then established with the company,** generally with sustainability leads during dedicated meetings. As environmental specialists, these counterparts are often particularly receptive to investors' recommendations.

**These discussions aim to set objectives that are aligned with each company's maturity level, supported by a progressive improvement framework over a period of approximately three years.**

3. **The implementation of objective monitoring using clear performance indicators.** Within this framework, structural transformations can be supported while maintaining, through a pragmatic approach, consistent pressure to improve practices.

> Communication between investors and companies on biodiversity issues is clearly advancing. At the heart of our shareholder engagement practices, this dialogue creates a virtuous circle: companies gain a clearer understanding of our expectations regarding biodiversity reporting and strategy, while our knowledge of sector-specific constraints deepens. This shared rise in expertise lays the foundations for tangible improvements in practices.

**Aude Lerivrain**
Head of Financial & Sustainable Analysis - Equity/Credit, CPRAM

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## Graduated escalation measures

When companies fail to meet the objectives set for them, or if they progress too slowly, the Amundi Group can activate several graduated escalation levers. Under the Group's Biodiversity Policy, lagging companies first see their scores downgraded on specific ESG criteria and sub-criteria, such as water, biodiversity, or waste & pollution. They may then be placed on a watch list, which can, for example, lead to unfavourable votes at general meetings, with publicly disclosed justifications on Amundi's website. In the most serious cases, exclusion from the portfolio becomes the final recourse.

## Improvement indicators and shareholder engagement

Engagement actions are linked to the three pillars defined at portfolio level. Companies' progress contributes to target objectives set for the portfolio as a whole.

**Land pillar:** achieve a waste-recycling rate higher than that of its reference index

**Water pillar:** reduce water consumption by maintaining a water-intensity level per €1 million of revenue that is lower than its reference index

**Climate pillar:** maintain a carbon-intensity level lower than its reference index

his quantitative approach translates the complexity of biodiversity into concrete and measurable indicators, enabling clearer monitoring and communication of results.

In practice, shareholder engagement on biodiversity still faces several specific challenges compared with climate. Supply-chain analysis, for instance, continues to suffer from a lack of reliable data. It remains difficult today to know precisely the volumes of raw materials sourced from sensitive areas within the supply chains of a given company.

Such limitations may encourage a stronger focus on the commitments made by companies and on the resources deployed to meet them, in the interest of constructive dialogue and the continuous improvement of practices.



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# 5. Reconciling investment and sustainability objectives

Faced with the growing pushback against ESG investing, biodiversity-focused asset management must address legitimate questions concerning the effectiveness and financial relevance of extra-financial criteria. For CPRAM, the answer lies in a rigorous methodological approach that places financial and environmental performance on an equal footing.

## 5.1. A multi-sector solution

CPRAM's multi-sector transition approach is designed to meet the performance challenges inherent in biodiversity investing. Because biodiversity touches every economic sector, the investment universe can remain sufficiently broad to support a dynamic portfolio management.

The portfolio, which is composed of 75% high-biodiversity-impact sectors, benefits from an investable universe of nearly 700 stocks out of the 1,600 in the MSCI World Index, after excluding 45 to 50% of companies through extra-financial filters.

The aim of diversification[44] is to reduce vulnerability to sector cycles. The approach prioritises the support of improved practices rather than selecting only pure-play activities.

The key challenge lies in assessing and monitoring practices across the entire value chain: use of plastics, pesticides, and the management of natural resources.

## 5.2. Aligning search of performance with sustainability

CPRAM's methodology seeks to reconcile financial performance with environmental performance, in line with the standards of impact investing (intentionality, additionality, measurability). However, it aims to do this without positioning itself as an impact-investment strategy. This is because impact on listed equities is still loosely defined today, particularly from a regulatory standpoint. Portfolio construction is built around three levers: extra-financial analysis incorporating biodiversity criteria, proprietary financial expertise, and risk modelling to ensure optimal diversification.[44]

Security selection is not carried out in advance on financial considerations alone, but results from an integrated approach where financial and extra-financial insights reinforce one another. Biodiversity filters redefine selection

44. Diversification does not guarantee profits or protect against losses.

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criteria based on companies' contribution to preserving the natural world. This approach reflects the conviction that companies committed to reducing their biodiversity impacts and dependencies will exhibit more favourable risk profiles and generate long-term performance. Portfolio construction therefore maintains a return expectation close to the reference index while meeting biodiversity constraints.

Monitoring relies on indicators that combine traditional financial tracking with environmental impact measurement. This transparent approach, formalised in a sustainability report and based on verifiable data and measurable commitments, aims to act as an effective safeguard against greenwashing.

> The results support our approach: launched in 2023, the CPR Invest–Biodiversity fund delivered performance in line with our expectations in 2024, with notable resilience during market downturns.

**Rodolphe Taquet, CIIA**

Senior Portfolio Manager and Director of Quant Projects, New Territories, CPRAM

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# 6. CONCLUSION

Biodiversity investing has reached a decisive turning point. The approach developed by CPRAM shows that preserving the natural world and seeking financial returns are no longer contradictory goals, but two sides of the same modern investment strategy.

This compatibility is grounded in a methodology designed with scientific oversight from the Muséum national d'Histoire naturelle (France's Museum of Natural History) and strengthened by recognised expertise. The multi-criteria analytical framework built around Land, Water and Climate—supported by complementary data sources and robust scientific partnerships—offers a credible alternative to the empirical approaches of the past.

For institutional investors, this compatibility opens up major opportunities. Scientific methodologies now available make it possible to identify the companies that will create tomorrow's value, by anticipating environmental constraints rather than enduring them. Such forward-looking capability could prove decisive in a world where climate and biodiversity risks will increasingly weigh on valuations.

This investment strategy not only aligns with the broader vision of sustainable finance but also responds to emerging regulatory requirements, such as Solvency II.

However, the challenge goes far beyond portfolio optimisation. It is about actively contributing to the "Shift the Trillion" movement—the essential reallocation of global financial flows needed to steer the economy towards a model that respects planetary boundaries. Institutional investors, through their scale and influence, hold the keys to this systemic transition.

More than ever, this transformation calls for sustained educational effort. In the face of ecological backlash, our role in educating beneficiaries and raising public awareness is becoming crucial. The credibility of responsible investment depends largely on our ability to explain, in concrete terms, how financial performance and environmental transition can be pursued together.



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BIODIVERSITY AT CPRAM:

## Enhanced expertise through internal training

To address with rigour the complexity of biodiversity issues and fully integrate them into its investment processes, CPRAM combines external scientific input with the development of a genuine biodiversity culture within its teams. This training approach has been structured in particular around the *Fresque de la Biodiversité* (Biodiversity Collage) workshop, led by internal ambassadors drawn from across all functions—portfolio managers, research engineers, strategists and commercial teams.

Engagement has been substantial: almost all employees have taken part, including the entire executive committee. This upskilling has also been strengthened by an ambitious training programme featuring short educational videos dedicated to biodiversity topics.


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We warmly thank all those who contributed to the preparation of this white paper and agreed to take part in the interviews. Their availability and expertise, and the quality of our discussions, greatly enriched this guide explaining the biodiversity investment strategy.

As part of the preparation of this white paper, interviews were conducted with:

— **Romain Julliard,** Professor and Director of the Mosaic service unit ("Methods and Tools for Participatory Sciences") at the *Muséum national d'Histoire naturelle* (France's Museum of Natural History) (July 2025)

— **Carine Kraus,** Executive Director of Engagement and Member of the Executive Committee of Groupe Carrefour (March 2025)

— **Virginie Wauquiez,** President of Carbon4 Finance (August 2025)

and with the following CPRAM/Amundi colleagues:

— **Vincent Artigouha,** Head of Institutional Sales

— **Fanny Cutard,** Responsible Investment & CSR Project Manager

— **Arnaud Faller,** Deputy CEO and Chief Investment Officer

— **Julien Foll,** ESG Research & Engagement at Amundi

— **Antoine Gougeon,** Quantitative analyst

— **Noémie Hadjadj-Gomes,** Chief Responsible Officer & Head of Investment Expertises & Solutions

— **Virginie Jouenne,** External Distribution and International Networks Marketing Manager

— **Hugo Lauricella,** Customer Equity Analyst

— **Aude Lerivrain,** Head of Financial & Sustainable Analysis - Equity/Credit

— **Guillaume Pitsch,** Finance Engineer

— **Rodolphe Taquet, CIIA,** Senior Portfolio Manager of the CPR Invest–Biodiversity fund and Director of Quant Projects, New Territories, CPRAM



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