achmea

Contents

Biodiversity Whitepaper

2024

Contents

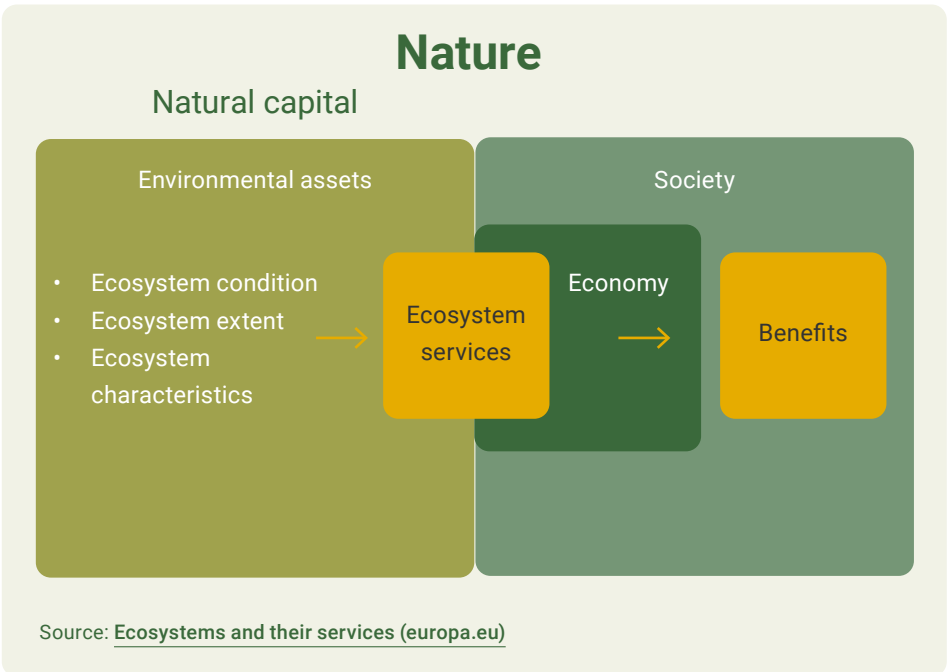
Achmea is working towards understanding the impacts, risks and opportunities related to nature and biodiversity. This paper provides an overview of our efforts to gain a better understanding of the topic for our investment portfolio, presents our ongoing efforts to protect and restore biodiversity and highlights the initiatives we have taken so far to integrate nature and biodiversity into our investment strategies. We also discuss our next steps on how we can further develop our strategy, governance and policy in the future. We consider biodiversity interrelated with our climate efforts, as climate change is one of the drivers of biodiversity loss, alongside land and water use change, overexploitation, pollution, and invasive species.

Understanding nature, ecosystems and biodiversity

It is important to start with a shared understanding of the terms and concepts used when talking about nature, ecosystems and biodiversity in a financial or company context. In this section we go over a few of the most important and often used concepts.

Nature refers to the natural world, emphasising the diversity of living organisms, including people, and their interactions with each other and their environment. 'Nature' captures both the biotic (living) and abiotic (non-living) elements on our planet. Resources of nature, such as plants, animals, air, water, soils and minerals are also sometimes referred to as **natural capital**.

Elements of nature, both living and non-living combine in **ecosystems**. Ecosystems are appreciated for the **ecosystem services** they provide. These are defined internationally as the 'contributions of ecosystems to human well-being'. This means ecosystems



Source: Ecosystems and their services (europa.eu)

services generate benefits that humans derive from ecosystems and use in economic and other human activity[1].

Ecosystem services form the basis for understanding corporate dependence on natural capital and are important for corporate risk management. Any depreciation in natural capital directly affects the availability and quality of these services, posing risks to business operations[2].

The following three broadly agreed categories of ecosystem services are often used:

- **Provisioning services** are those ecosystem services representing the contributions to benefits that are extracted or harvested from ecosystems; examples are mushrooms or fish harvested in the wild and the crops and grazed areas that deliver us bread, meat and other foodstuffs.
- **Regulating and maintenance services** are those ecosystem services resulting from the ability of ecosystems to regulate biological processes and to influence climate, hydrological and biochemical cycles, and thereby maintain environmental conditions beneficial to individuals and society. Climate regulation and water flow regulation are important examples of this type.
- **Cultural services** are the experiential and intangible services related to ecosystems whose existence and functioning contributes to a range of cultural benefits, such as improved health, recreation or cultural rituals.

The ability of nature to provide these ecosystem services depends on biodiversity. **Biodiversity** refers to the variability among living organisms across the **realms**: land, ocean, freshwater and atmosphere. It is an essential and integral characteristic of nature that enables ecosystems to be productive, resilient and able to adapt. Biodiversity loss refers to the decline or disappearance of biological diversity and five key drivers of biodiversity loss have been identified:

- Climate change
- Land/freshwater/ocean use change
- Resource use/replenishment
- Pollution/pollution removal
- Invasive alien species introduction/removal

1. Source: Ecosystems and their services (europa.eu)
2. Source: Guidance on the identification and assessment of naturerelated issues: The LEAP approach

Why is it material to Achmea's investments?

We cannot live without the ecosystem services that nature provides, and yet human activities are causing the degradation of nature. We have reached our planet's biocapacity; the ability of our planet to regenerate its ecosystems (Figure 1), and we've crossed 6 of the 9 planetary boundaries within which humanity can continue to develop and thrive for generations to come (Figure 2). Crossing the boundaries increases the risk of generating large-scale abrupt or irreversible environmental changes.

Figure 1: The global Ecological Footprint and biocapacity from 1961 to 2022 in global hectares per person[3]

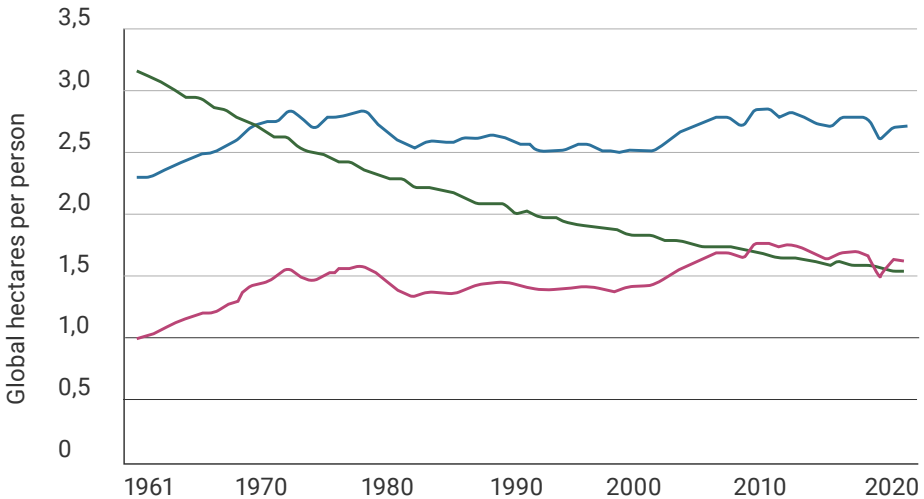
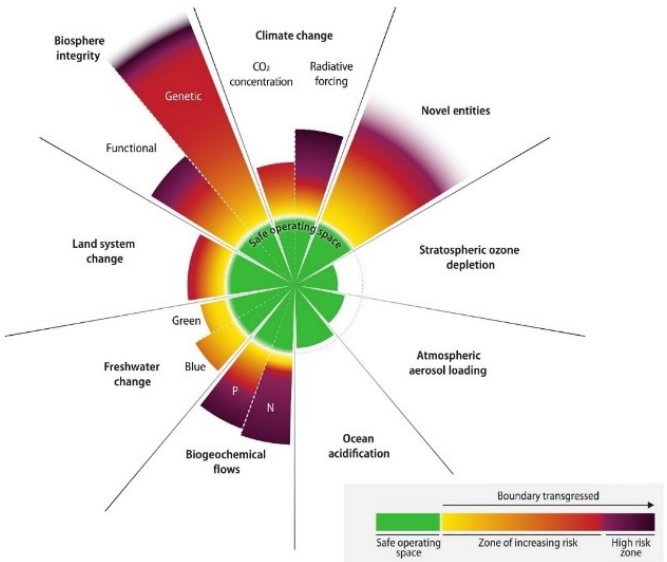


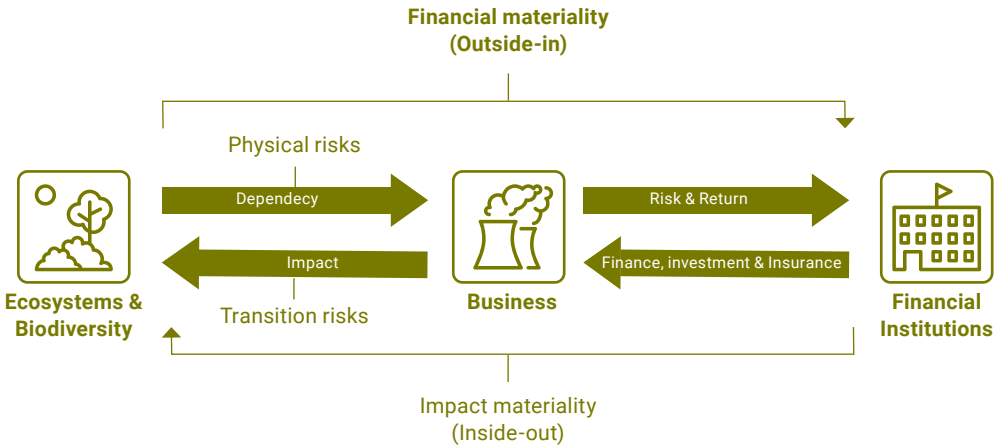
Figure 2: Planetary boundaries: Azote for Stockholm Resilience Centre, based on analysis in Richardson et al 2023



3. Source: Living planet report 2022.

In our Double Materiality Assessment we have concluded that biodiversity loss is material for our investments. The double materiality concept helps us understand how biodiversity impacts our organisation. Our financing activities can contribute to key drivers of biodiversity loss through the production processes of the companies we invest in, which is an inside-out perspective. We can use our role as investor to positively influence and try to mitigate or reverse biodiversity loss, for example by means of engagement. On the other hand, the companies we finance also depend on ecosystem services to operate, which is an outside-in perspective. The loss of biodiversity might impact their performance and indirectly might also negatively impact our investment returns. This is illustrated in de figure below.

Figure 3: The connection between financial activities and biodiversity



As a company committed to ‘Sustainable living. Together’, we recognise the urgent need to address biodiversity loss and contribute to the conservation and restoration of biodiversity through our investment portfolio.

In 2021 Achmea signed the Finance for Biodiversity Pledge. Signatories commit to protecting and restoring biodiversity through their finance activities and investments by:

1. Collaborating and sharing knowledge
2. Engaging with companies
3. Assessing impact
4. Setting targets
5. Reporting publicly on the above

Finance for Biodiversity Pledge

Next to our commitment for the pledge, we also use where possible the framework and guidance developed by the Taskforce on Nature-related Financial Disclosures (TNFD) and the Partnership for Biodiversity Accounting Financials (PBAF) to conduct our analyses and develop our strategy.

Understanding biodiversity impacts and risks is crucial for financial institutions such as Achmea. By understanding the interactions between our activities, the companies we invest in and ecosystems we can gain a better understanding of the social, economic, and financial risks associated with biodiversity loss. In the section below, an overview of Achmea's initial assessment of nature-related dependencies and impacts is presented, which serves as a first step in identifying nature-related risks in our portfolio.

Nature-related risks

Nature-related risks are defined as potential threats (effects of uncertainty) posed to an organisation that arise from its own and society's broader dependencies and impacts on nature. Such risks can be **physical risks**, **transition risks** or **systemic risks**.

Nature-related **physical risks** are risks to an organisation that result from the degradation of nature and consequential loss of ecosystem services. Like climate related risks, these risks can be categorised as acute or chronic and they are usually location specific.

Nature-related **transition risks** are risks to an organisation that result from a misalignment of economic actors with actions aimed at protecting, restoring and/or reducing negative impacts on nature. These risks can be prompted, for example, by changes in regulation and policy, legal precedent, technology, investor sentiment and consumer preferences. Categories of nature-related transition risks include policy risk, market risk, technology risk, reputational risk and liability risk.

Nature-related **systemic risks** are risks to an organisation that arise from the breakdown of the entire system, rather than the failure of individual parts. These risks are characterised by modest tipping points combining indirectly to produce large failures, where one loss triggers a chain of others, and prevents the system from reverting to its prior equilibrium.

Analysing the exposures to dependencies on nature and/or impacts of economic activity on nature is a first step to identify sources of physical and transition risks. The results of this impact and dependency analysis are presented in the section below. The results of this assessment can be used as an input for the identification of nature related financial risks, potentially following the 'LEAP process' of the TNFD Framework, and as an input to voluntary or mandatory disclosures, like the Global Reporting Initiative (GRI) and the Corporate Sustainability Reporting Directive (CSRD).

Dependency and Impact analysis

Using the publicly available online tool ENCORE (Exploring Natural Capital Opportunities, Risks and Exposure) we conducted a dependency and impact analysis for our corporate investment portfolio. The ENCORE data enabled us to assess the extent to which our corporate investment portfolio is exposed to certain ecosystem dependencies and are impacting the key drivers of biodiversity loss.

Where available, we conducted the assessment using the process and the accompanying requirements and recommendations provided in the guidance documents by the Partnership for Biodiversity Accounting Financials (PBAF).

Scope

Our analysis focused on our corporate investment portfolio of our own risk investments and the investments for account and risk of our policyholders. This consists of listed equity and corporate fixed income, representing roughly 49.4% of our total own risk assets with a total value of approximately EUR 17,537 million and roughly 43.8% of our account and risk policyholder assets with a total value of approximately EUR 2,832 million[4].

4. As of 30 june 2024

	Amount Investment	Amount investment in scope	Investments for which the dependency and impact analysis could be conducted	
	€ Million	€ Million	€ Million	%
Own risk				
Corporate Bonds	11,322	11,322	11,322	100%
Investment funds - shares	475	475	0	0%
Shares	1,525	1,470	1,470	100%
Treasury	4,745	4,745	4,745	100%
Total	**18,068**	**18,012**	**17,537**	**97%**
Account and risk policyholders				
Corporate Bonds	424	424	424	100%
Investment funds – shares	453	453	0	0%
Shares	2,408	2,408	2,408	100%
Total	**3,284**	**3,284**	**2,832**	**86%**

Limitations

The analysis uses data at sector/sub-industry level. It gives an indication of the sectors in which investments are made. However, this approach does not allow for assessing how individual companies impact and rely on nature. In order to be able to do a complete analysis, it is necessary to use data at company level.

Proceeding from the limitation of working on a sector/sub-industry level is that there is no location specific data taken into account. When assessing dependency and impact of companies, the location of its activities is relevant and frameworks and guidelines like the TNFD and PBAF also prescribe mapping locations.

Companies can have multiple production processes that span different sub-industries, resulting in them being classified in a particular sub-industry, even if it is not their primary business activity. For instance, a company that produces both pharmaceuticals and medical devices may be classified in the pharmaceutical sub-industry, even though

a significant portion of its revenue comes from medical devices. In cases when a company is mapped to multiple sub-industries, ENCORE requires the user to manually map each company to the appropriate production process. We carefully selected the suitable production process per company, considering multiple sub-processes and applying the prudency principle when a company was involved in multiple production processes. However, this approach could lead to inaccurate industry and sector weightings in the portfolio, which could impact the analysis performed using ENCORE.

The analysis is limited to direct impacts and dependencies (scope 1 and 2) and does not include indirect impacts and dependencies (scope 3).

Ecosystem Dependencies

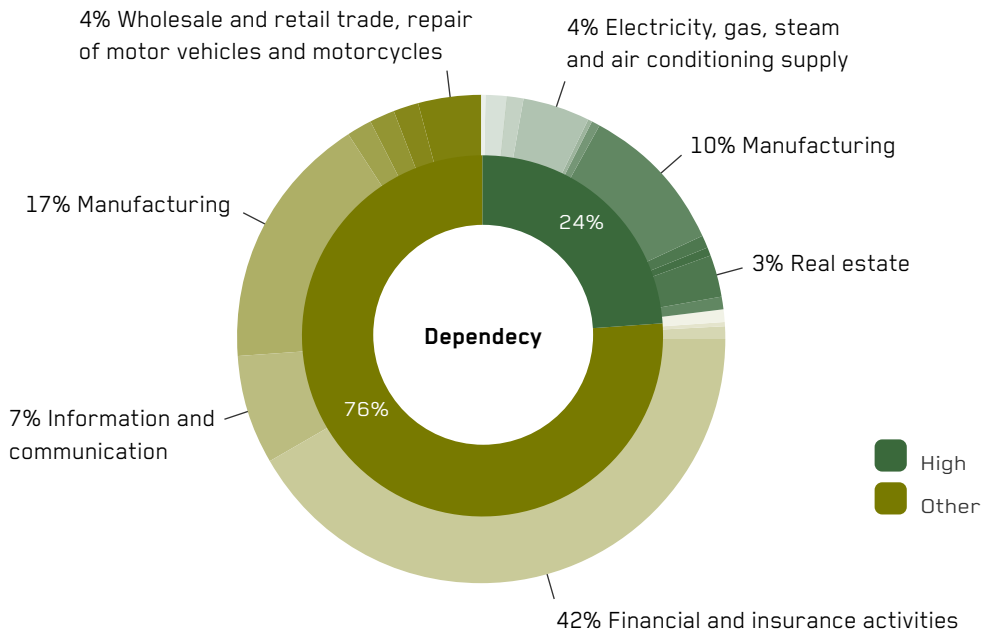
All businesses depend on nature and the ecosystem services nature provides, either directly or indirectly through value chains. By assessing the dependencies on ecosystem services of the companies/assets in our investment portfolio, we can see to what extent our investments may run a financial risk when the provision of ecosystem services is affected, e.g. by the loss of biodiversity.

The focus of ENCORE is on potential direct dependencies. With the recent update of ENCORE's knowledge base, it is now possible to also map indirect dependencies. In this analysis, these have not yet been included. Even when potential direct dependencies in a portfolio are limited, the indirect dependencies can still be significant.

The ENCORE database covers 25 different ecosystem services (4 provisioning-, 17 Regulating & maintenance services and 5 Cultural services).

The figure below shows that 24% of the portfolio has an exposure to (very) high dependency. The sectors[5] which are exposed to one or more (very) high ecosystem dependency are shown in the outer circle. The sectors with an exposure of less than 2% are not written out in the figure below.

Figure 4: Dependency risk by sector



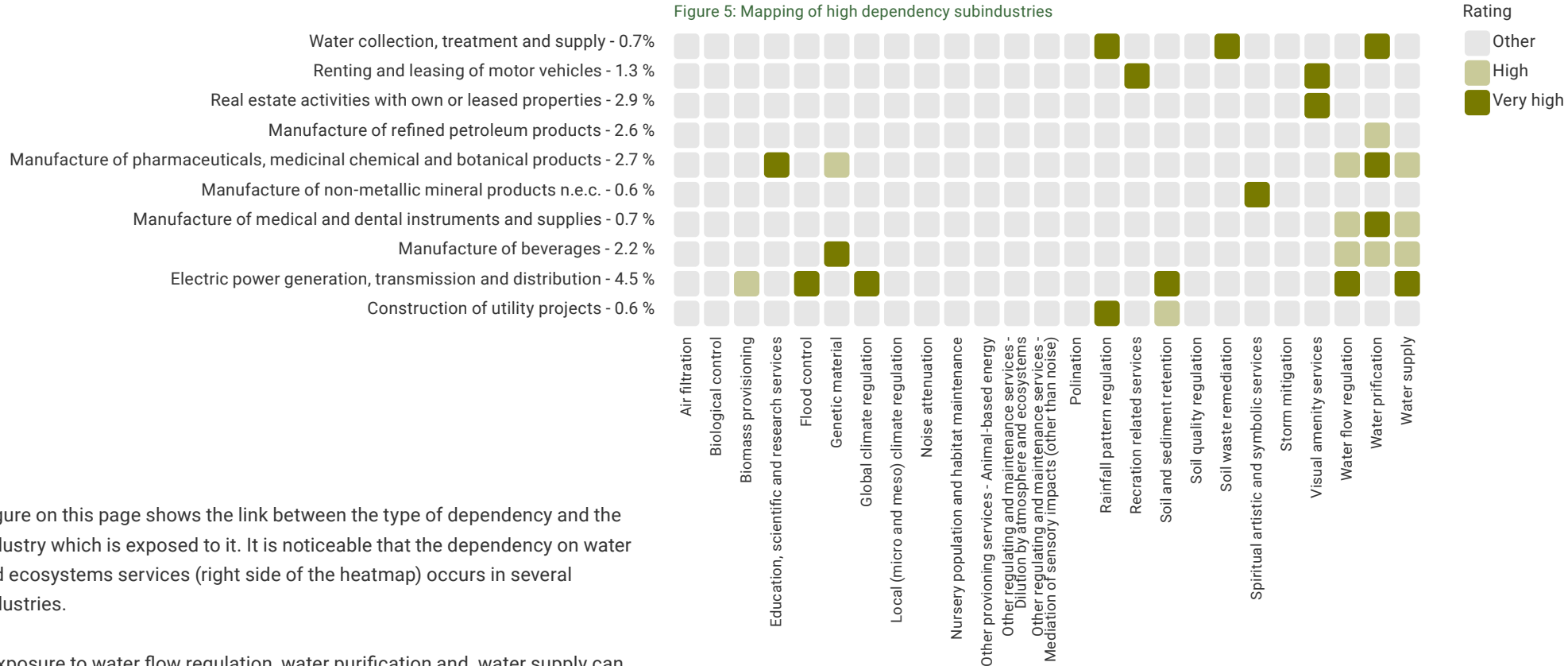
5. We use NACE sector classification

The top 3 sectors with most exposure to a (very) high ecosystem dependency exposure are: Manufacturing (42,0%), Electricity, gas, steam and air conditioning supply (18,6%) and Real estate activities (12,2%). Because a sector has several underlying production processes, part can be classified as high dependency, and part can be classified as low or no dependency. This is the case for the sector manufacturing for example, which also has 22% exposure to no to low dependency, which is shown in the blue outer circle.

To illustrate, the (very) high rating for Manufacturing can be explained by the (very) high dependency on the following ecosystem services:

- **Education, scientific and research services:** Ecosystems contribute to knowledge by indigenous and local communities of certain species, for example locally adapted breeds, that can inform pharmaceutical and medicinal products.
- **Genetic material:** For example, manufacture of pharmaceuticals, medicinal chemical and botanical products depend on the provision of genetic material to enable DNA and antibodies to be used in the manufacture of pharmaceuticals.
- **Water flow regulation:** Manufacturing sites are dependent on water flow regulations to mitigate the risk of floods and damage. Some processes in chemical manufacture rely on water, and therefore the ecosystem's ability to regulate and sustain water flow.
- **Water purification:** For example. manufacture of pharmaceuticals, medicinal chemicals and botanical products is dependent on water purification by ecosystems to uphold the chemical composition of water necessary for the detoxification of potential effluents, and other critical stages throughout the production process.
- **Water supply:** The manufacturing process depends on water supply services provided by ecosystems to ensure sufficient quantity and quality of water for production and cooling purposes.

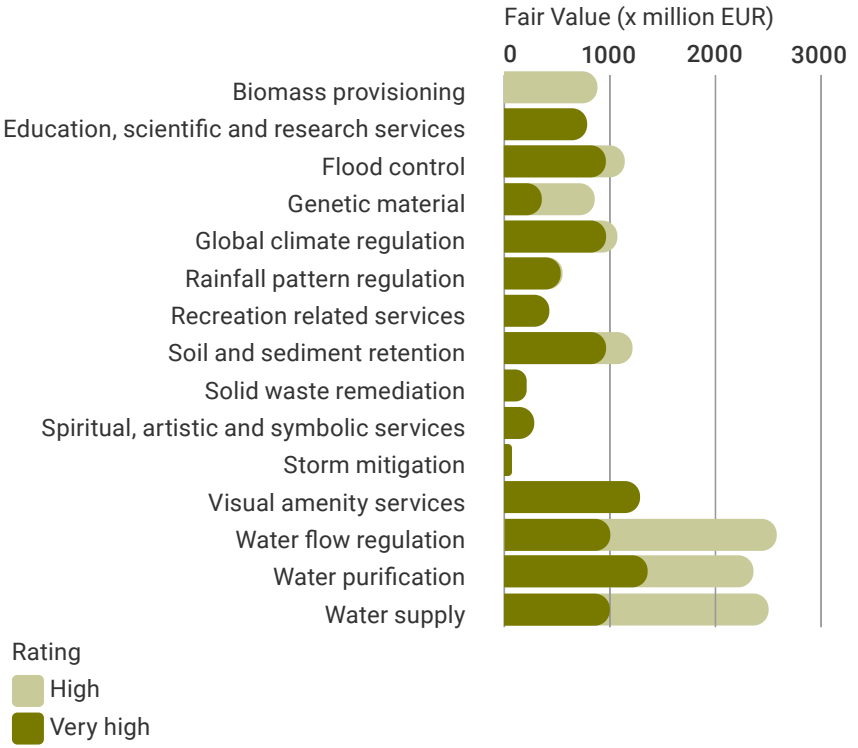
Figure 5: Mapping of high dependency subindustries



The figure on this page shows the link between the type of dependency and the subindustry which is exposed to it. It is noticeable that the dependency on water related ecosystems services (right side of the heatmap) occurs in several subindustries.

This exposure to water flow regulation, water purification and water supply can also be seen in the graph below, which shows the exposure in our portfolio in EUR million to each specific ecosystem dependency.

Figure 6: Ecosystem Service Dependencies



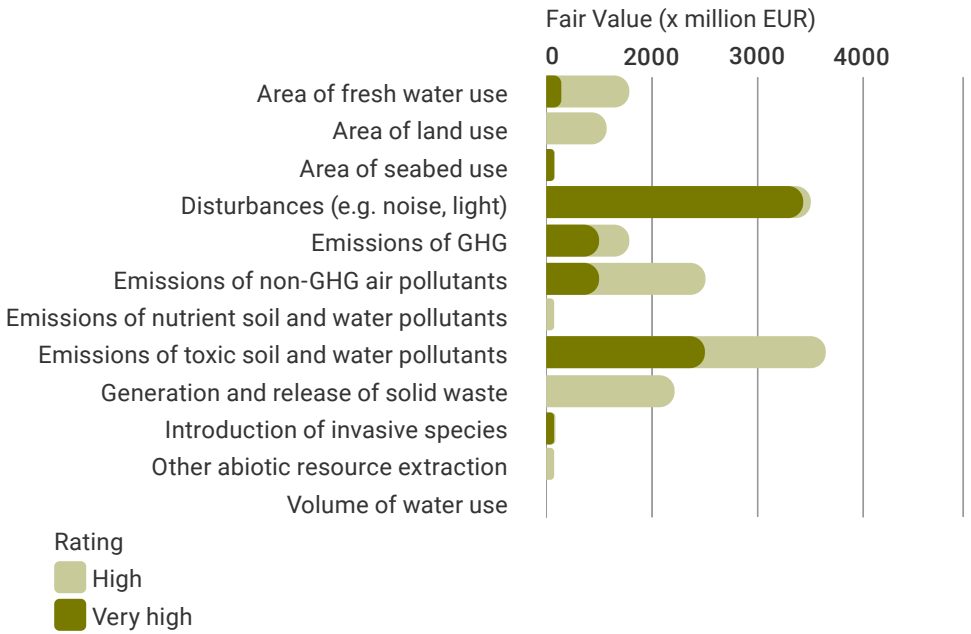
Impact drivers

An impact is different to an impact driver. Impacts are “changes in the quantity or quality of natural capital that occurs as a consequence of an impact driver. A single impact driver may be associated with multiple impacts” (Natural Capital Protocol, 2016).

ENCORE maps the portfolio to 11 different impact drivers. These 11 drivers differ from the five main impact drivers as defined by the TNFD and other frameworks. ENCORE subdivides some of the five main drivers. For example: pollution is subdivided into: non-GHG air pollutants, Emissions of nutrient soil and water pollutants and, Emissions of toxic soil and water pollutants. The results presented below will use ENCORE’s categorization.

Using ENCORE data, we are able to show the exposure to high impact sectors. The figure below shows the exposure in millions (EUR) to the specific impact drivers with high or very impact on nature.

Figuur 7: Impact Drivers



The graph shows that the biggest impact drivers are Disturbances (e.g. noise, light) and Emissions of toxic soil and water pollutants. Again, it is important to note that only direct impact drivers are taken into account.

The sectors with the highest impact driver exposure are Manufacturing (67,9%) and Electricity, gas, steam and air conditioning supply (18,9%). Overall, 28% of Achmea's portfolio is exposed to high scoring impact drivers.

Figure 8: Impact risk by sector

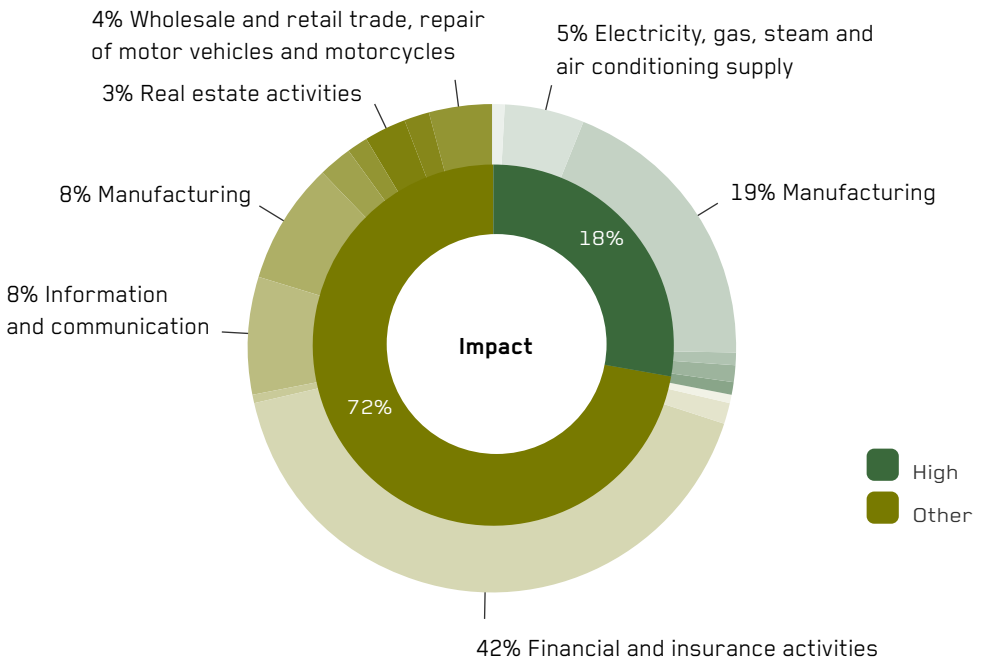
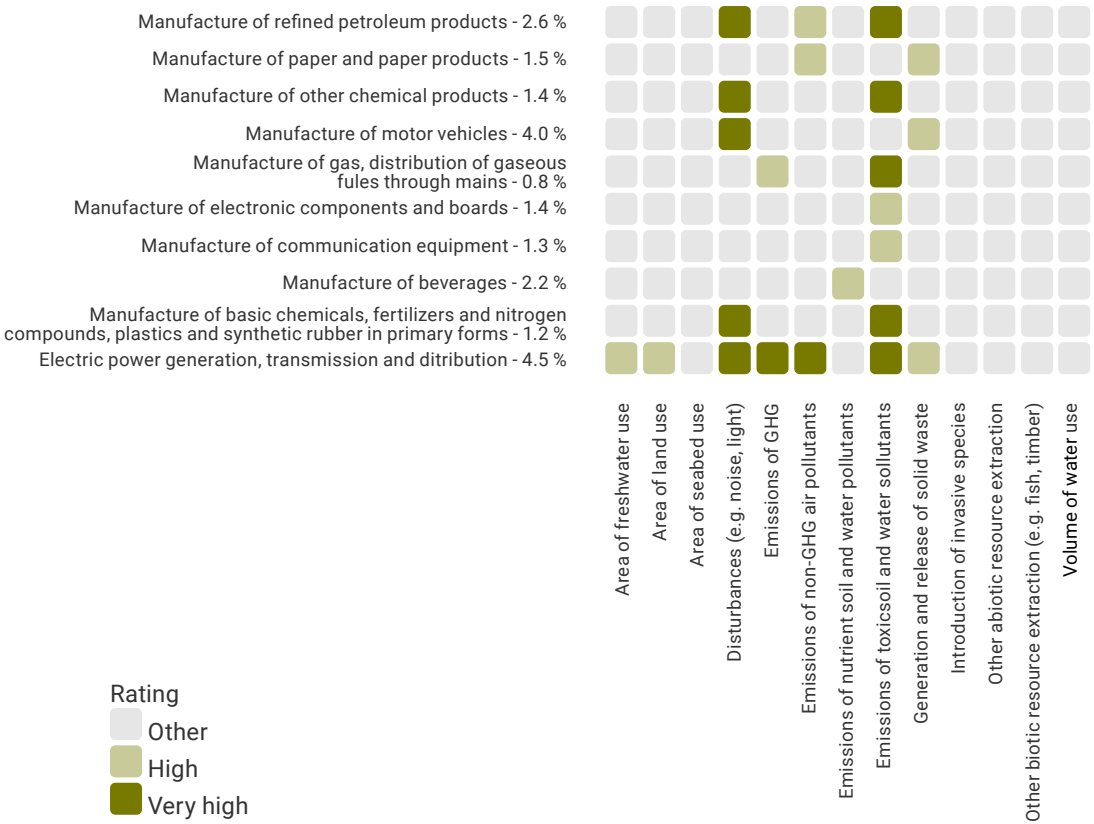


Figure 9: Mapping of high impact subindustries



Key takeaways and next steps

The impact and dependency analysis using ENCORE data served as our first insight into nature-related risks in our portfolio. Due to the limitations of the data, we are not yet ready to base our policy on these results. ENCORE updated their database this year and we compared the results from the older version with this newer one. The results differed significantly and show us that biodiversity data is still in development. Nevertheless, the ENCORE analysis helps to start the conversation on biodiversity within Achmea as a whole and confirms that for our investments it is a material topic from both an outside-in as well as an inside-out perspective.

We will continue to update the ENCORE impact and dependency analysis on a yearly basis and use it in our risk management process.

An important next step is looking at company specific data to get a better understanding of the impact of our portfolio. In 2024 Achmea has contracted Iceberg Data Labs (IDL) in order to monitor and ultimately report in more detail on the biodiversity impact of our investment portfolio. The Data from IDL will allow us to report using the Corporate Biodiversity Footprint (CBF), with which we can monitor the biodiversity loss within our corporate investment portfolio. The CBF methodology from IDL uses the Mean Species Abundance (MSA) metric to quantify Biodiversity impact. The data from IDL also covers indirect impact (scope 3). With this new data set we can assess which companies in our portfolio have the highest impact, we can assess which sectors have the highest impact on biodiversity loss and we can assess which impact drivers play the biggest role. Such insights will help us to develop our strategy and policy.

We are also participating in the International Responsible Business Conduct (IRCB) 2.0 biodiversity working group of the Dutch Association of Insurers in which we can work together with other insurers and external stakeholders such as NGOs to share knowledge and make an impact within various sectors. Next to expanding our own engagement efforts, we also aim to collaborate with peers in our sector to make an even bigger impact. A good example of collaboration in which we already participate is Nature Action 100 and the various engagements by the Farm Animal Investment Risk and Return Initiative (FAIRR). In the next chapter, we elaborate more on these.

Finance for biodiversity Pledge: target

As a signatory of the Finance for Biodiversity Pledge we[6] have committed to communicating a biodiversity target in 2024 and report on this target in 2025. We will take into account the recommendations of the TNFD and PBAF.

As we are still in the exploratory phase regarding nature-related impacts, risks and opportunities, we have opted to set the following initial targets. In the future, these targets will be expanded upon.

Initiation targets:

- We will allocate specific resources (FTE) with knowledge, responsibility, and accountability for nature-related issues within Achmea, starting with our corporate investment department.
- We will provide adequate education for the relevant employees and managers on nature and the implications of nature related risks and opportunities for the organisation.
- Within the thematic engagement program, at least 1 theme (out of 10) is continuously devoted to biodiversity in addition to the existing climate themes
- Shareholder proposals related to biodiversity (and/or related topics such as pollution, waste, water and land use, etc.) receive extra attention and support in the voting process.

Monitoring target:

- We will further assess our corporate investment portfolio impact using IDL data and report our biodiversity footprint (in km2 MSA) in the Achmea annual report and our MVB report.

Portfolio target:

- We aim to explore and define a portfolio target to reduce our biodiversity footprint in our listed equities investments and corporate bond portfolio's.

We aim to have the above completed by the end of 2025.

6. We as in: the Dutch insurance entities within Achmea group and their on-balance investments for own risk and on-balance investments for account and risk of policyholders.

What do we already do on this topic?

Achmea has chosen 5 key themes on which to focus when developing its responsible investment portfolio: Labour rights, Human Rights, Health, Climate and Nature & Environment.

Currently the goals for Nature & Environment are focussed on preventing degradation of biodiversity in highly fragile ecosystems and preventing serious forms of soil pollution and irresponsible management of agricultural land.

The tools that we currently employ to achieve our nature-related ambitions are exclusion, engagement, ESG integration and impact investing. Below we give you an overview of how these investment tools were used in 2023.

It is important to note that because climate change is a major cause of biodiversity loss, the targets and efforts of Achmea to reduce its carbon footprint and climate risks are also expected to contribute to reducing the 'biodiversity footprint' of the investments.

Exclusion

Achmea has a robust process which is used in our exclusion process. The seriousness of the violation, the willingness of the company to enter into a dialogue with Achmea and the measures that the company takes to remedy the violation are taken into account in the decision-making process to exclude a company. In practice, violations of environmental standards in the investment universe are often due to soil or water pollution and/or threats to biodiversity.

In our most recent update of our exclusion list (1 July 2024) 23 companies were excluded due to nature & environmental violations.

Engagement

Nature & Environment are part of both our normative, thematic and collective engagement programs. In our normative engagement programme Achmea engages with companies that violate or threaten to violate the principles of the UN Global Compact or the OECD guidelines for multinational enterprises. Specific attention is paid to the theme of Nature & Environment. This concerns, for example, soil and water pollution or threats to biodiversity. In addition, within the thematic engagement programme, specific attention is paid to biodiversity and related topics such as the use of plastics and water. The Engagement Guidelines reflect our expectations towards investees regarding biodiversity and are part of Achmea's Socially Responsible Investment (SRI) policy. Our expectations of companies on this theme align with the Rio Declaration on Environment and Development and the UN Convention on Biological

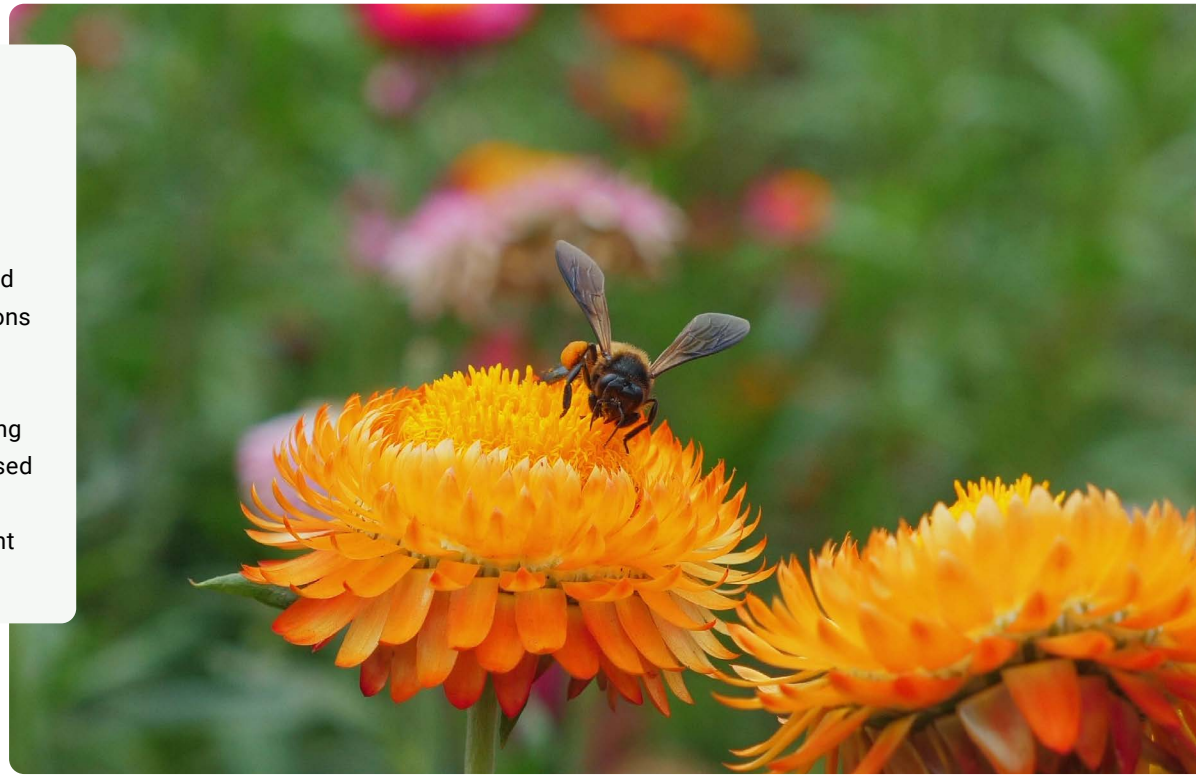
Diversity. As per 1 July 2024, 32 companies were part of our normative engagement programme related to nature & environment. In our thematic engagement program we have 4 ongoing engagements related to nature and biodiversity, targeting 21 companies[7].

We were part of 8 collective engagement programs and we signed 3 investor statements related to nature and biodiversity topics. More detail on this can be found in our ESG (Dutch: MVB) report.

Thematic engagement example: Clothing and circularity

In 2023, the engagement program Clothing and Circularity was launched.

The clothing sector currently has a significant negative impact on the environment and climate. This is due to the use of raw materials (including chemicals), the CO_2 emissions generated in the production of both the raw materials and the final product and, most importantly, the relatively short useful life of many garments. The clothing sector is currently far from a circular economy, resulting in huge amounts of waste from clothing that is quickly discarded or even unsold. To address the environmental problems caused by the sector, it needs to become much more circular. To this end, this engagement programme will engage with key apparel manufacturers and retailers in the investment portfolio.



7. Engagement programs only related to climate are left out of this overview

Collective engagement examples:

Nature Action 100

In the second half of 2023, Nature Action 100 was established. Nature Action 100 is an international partnership in which institutional investors collectively engage with the 100 companies with the highest impact on biodiversity. The aim of the initiative is to provide investors with a platform for collaboration and to guide companies in reducing their impact on biodiversity. Out asset manager, Achmea IM, plays an active role in this initiative by participating in 6 of the dialogues.

FAIRR: Protein Diversification engagement

Livestock farming is responsible for 20 percent of all greenhouse gas emissions caused by humans, as well as deforestation, antibiotic resistance and groundwater pollution. The pressure on animal protein production is increasing, with the associated costs for society. The need for diversified protein portfolios, including plant-based, artificial and alternative proteins, is growing. FAIRR has therefore launched an engagement process with the aim of integrating climate strategies and diverse protein portfolios at 20 major food producers and retailers.

PRI Spring (A PRI stewardship initiative for nature)

PRI brings together investors in a collective initiative to conserve and restore biodiversity. The initiative is based on the 'Kunming-Montreal Global Biodiversity Framework'. The first phase involves engagement with influential companies on deforestation and land degradation, as these factors have the greatest impact on biodiversity loss. The initiative targets both companies and policymakers.

Global Financial Institutions Statement to Governments on Deep Seabed Mining

Investor collective 'Finance for Biodiversity' has called on investors to oppose deep sea mining. The oceans are the world's largest source of biodiversity. Deep sea mining disrupts the balance of these systems, which also carries a strong financial aspect. Signatories of the statement from 'Finance for Biodiversity' state that deep sea mining should not be further developed until the environmental impact and the social and economic risks have been fully mapped out.

ESG integration

We believe that ESG factors can have a material impact on the long-term performance of our investments. Therefore we ask our asset managers to integrate these factors into our investment analyses and decisions. ESG factors related to biodiversity are for example Toxic Emissions & Waste, Water Stress and Biodiversity & Land Use.

Impact investing

A good example of impact investing for the topic of biodiversity loss is the Triodos Food Transition Europe Fund. This fund invests in the transition towards ecologically and socially resilient food and agriculture systems. It provides long-term mission-aligned private equity to leading European sustainable food businesses that meet the increasing demand for sustainably produced food. What is distinctive about this private equity structure is that Triodos opts for a long-term commitment to the companies in its portfolio (‘evergreen’) and therefore does not aim for an exit within a few years. As of the end of 2023, the portfolio consists of 11 participations in sustainable companies.

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