

WHITE PAPER

Nature is a blind spot, also for Nordic companies

Loss of biodiversity presents a material risk for many large Nordic companies, yet, conversely, they may have an adverse impact on biodiversity through their activities. Therefore, the biodiversity crisis also poses a risk for investors. In this whitepaper we assess how 99 of the largest Nordic companies are report on biodiversity as well as set targets to mitigate their physical and transitional risks stemming from biodiversity.



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Executive summary

The future profitability and success of many companies relies upon the health of global biodiversity. Conversely, the economic activity of companies amounts to one of the largest contributors to biodiversity loss, which furthermore significantly reduces the capacity of our planet to sequester carbon and hence mitigate global warming.

These negative impacts not only have direct implications for the environment and society as a whole, they also present material challenges for business in the form of increased physical and transitional risks. It is thus incumbent on companies to report their impacts and dependencies on nature impacts and dependencies and to set strategies, plans and targets for how they will seek to reduce any adverse impacts.

Biodiversity matters for investors, and as one of the largest asset managers in the Nordics we naturally have an exposure to many of the largest listed Nordic companies. In this

whitepaper we seek to uncover whether the largest companies in the Nordics acknowledge the biodiversity crisis¹ i.e. their dependency as well as the adverse impacts of their activities. We assess whether Nordic companies are reporting on biodiversity as well as setting targets to mitigate their physical and transitional risks stemming from biodiversity.

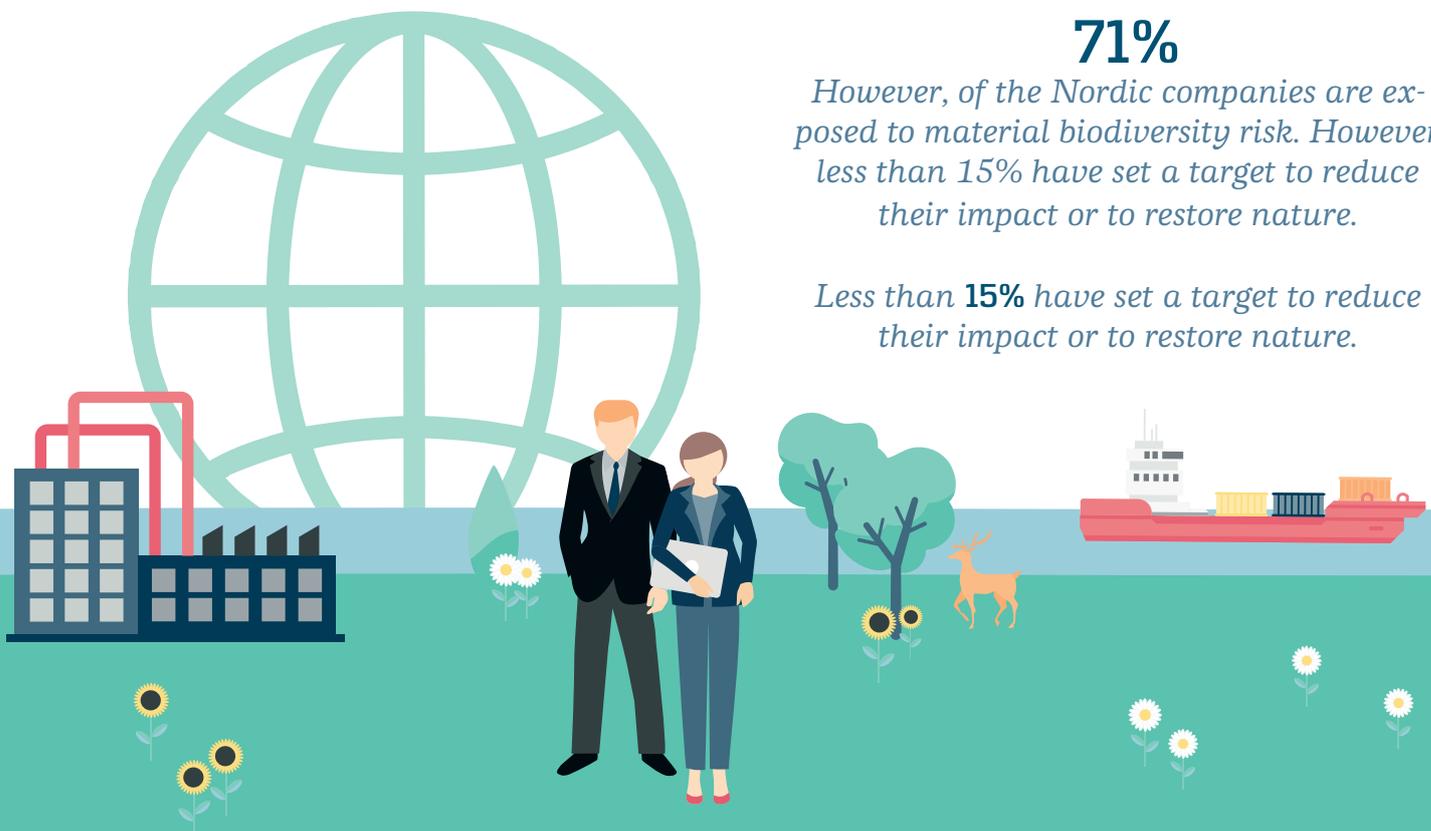
We conclude that 71% of the even though biodiversity poses a risk for these Nordic companies, are exposed to material biodiversity risk given the sector they operate within. However, even though the biodiversity risk pose a risk for the Nordic companies less than 15% have set a target to reduce their impact or to restore nature.

¹ <https://ipbes.net/global-assessment>

71%

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Why biodiversity loss is a severe global crisis

Biodiversity is the very essence of what sustains human life on Earth and consists of all living matter on the planet – from mammals, reptiles and fish, to trees, fungi and insects. Biodiversity and the ecosystems it supports enables humankind to flourish and prosper, providing us with all the necessities required for life, such as food, clean air and water, and medicines. It is therefore in our best interests to protect it.

While the drivers of biodiversity loss are many, the impact of land use change and a warming climate on biodiversity has been considerable. IPBES-IPCC¹ estimate that over three quarters of land and nearly 90% of oceanic area have been directly impacted by human activities, resulting in a loss of over 80% of wild mammal biomass and 50% of plant biomass.

Furthermore, the ongoing biodiversity loss and ecosystem degradation is significantly reducing the capacity of our planet to sequester carbon and hence mitigate global warming. Therefore, at a time when we are emitting more carbon than ever through the burning of fossil fuels, the planet’s capacity to absorb this is diminishing.

As we have stated, the drivers of biodiversity loss are many, but all are linked either directly or indirectly to human activity. The Convention on Biological Diversity (CBD) lists five human drivers of biodiversity loss – land and sea use change (habitat loss and deforestation), climate change, direct exploitation, invasive alien species and pollution – alongside many indirect drivers². Most of this can be linked to unsustainable economic development. Rising incomes, a broadening middle class and higher levels of disposable income have greatly increased consumption levels among the wealthier nations, placing an ever-increasing strain on the environment and the planet’s finite resources.

¹ <https://ipbes.net/global-assessment>

² See: <https://www.cbd.int/gbo3/?pub=6667§ion=6673#:~:text=The%20five%20principal%20pressures%20directly,constant%20or%20increasing%20in%20intensity.>

What is BIO + DIVERSITY?

means
"life"

means
"variety"



Genetic Diversity

Variety of genes and traits available within species



Species Diversity

Variety of species within an ecosystem



Ecosystem Diversity

Variety of ecosystem and habitat types in an area of land and water



Society’s economic reliance on biodiversity

Biodiversity is heavily interwoven into the fabric of economic activity and has a huge role to play in generating economic growth and prosperity. The World Economic Forum (WEF) estimates that one-half of global economic output (c. US\$44 trillion) is either moderately or highly dependent on biodiversity and ecosystem services.

Some industries are of course more reliant on biodiversity than others. WEF calculations determine that the three most highly dependent sectors – construction, agriculture and food and beverages – together generate US\$8 trillion of economic added value³. Dependencies include not only the raw material inputs that nature provides, but also a host of other critically important ecosystem services including soil and water quality, pollination, disease mitigation, erosion protection and climate control.

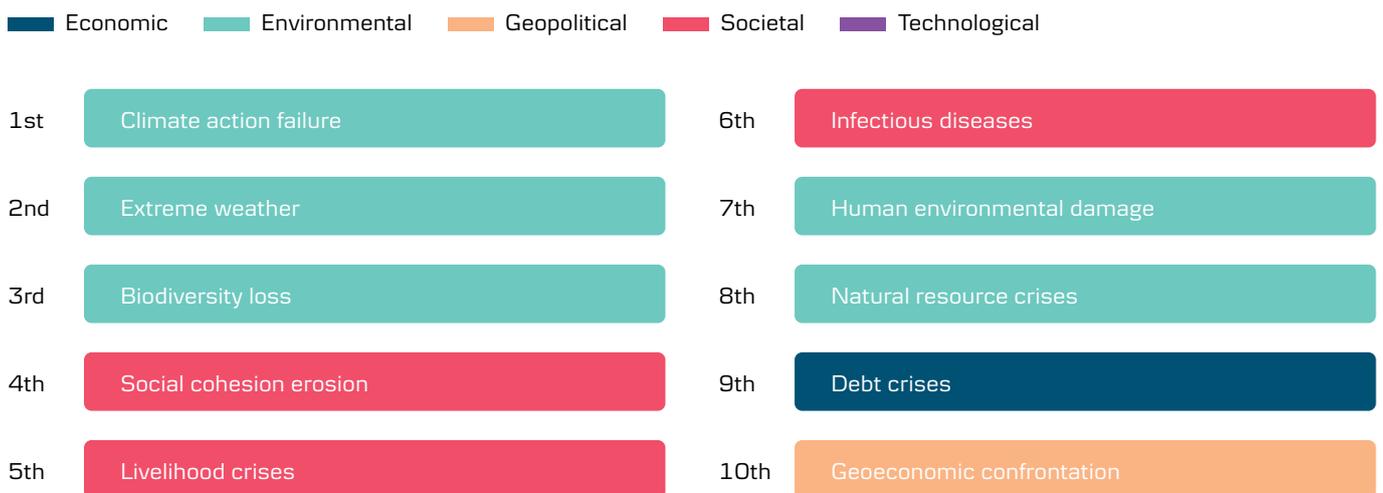
The economic importance of thriving biodiversity and the risks of its degradation are finally getting widespread acknowl-

ed. In the WEF’s 2022 Global Risk Report, which surveyed more than 800 internationally renowned experts and decision makers, respondents were asked to “identify the most severe risks on a global scale over the next ten years”. The top three risks all concerned environmental events and listed biodiversity loss alongside climate action failure and extreme weather (figure 1).

It is thus becoming clear that for many companies and economies to continue to prosper and thrive, biodiversity health needs to be safeguarded. Biodiversity is not just a ‘nice to have’, it is highly financially material.

³ https://wwf.eu.aws/assets.panda.org/downloads/new_stepping_up_the_continuing_impact_of_eu_consumption_on_nature_worldwide_fullreport.pdf

Figure 1: Identify the most severe risks on a global scale over the next 10 years



Source: World Economic Forum Global Risks Perception Survey 2021-2022



Biodiversity loss is a risk to investors

The biodiversity crisis is a reality and it poses a risk to investors and the investee companies. Companies' activities have adverse impacts on biodiversity and ecosystems, while nature is the number one supplier to many companies, so they are therefore highly dependent on nature. Several organisations, such as the OECD⁴ and The UN PRI⁵ describe how the loss of biodiversity and ecosystems is already impacting business. In short, business is impacted by physical and transitional risks. Biodiversity degradation and the transition to an economy that conserves and restores biodiversity may affect a company's value, business model and growth potential.

First, the physical risks of biodiversity degradation are set to shift the opportunities companies have for running a business. Biodiversity degradation can lead to increased raw material or resource costs, supply chain deterioration or disrupted business operations. Furthermore, businesses face the risk of clean up and compensation costs associated with biodiversity loss or disruption of ecosystems. For example, BP, the former British Petroleum, is estimated to have paid around \$ 65 billion in legal fees and clean-up costs for its role in the Deepwater Horizon oil spill in 2010.

Second, the transition to an economy that conserves and restores biodiversity is also associated with risk. Stricter biodiversity legislation, changes in consumption patterns and new business models are some of the forces driving society to take care of our biodiversity. Policymakers are scaling up policy

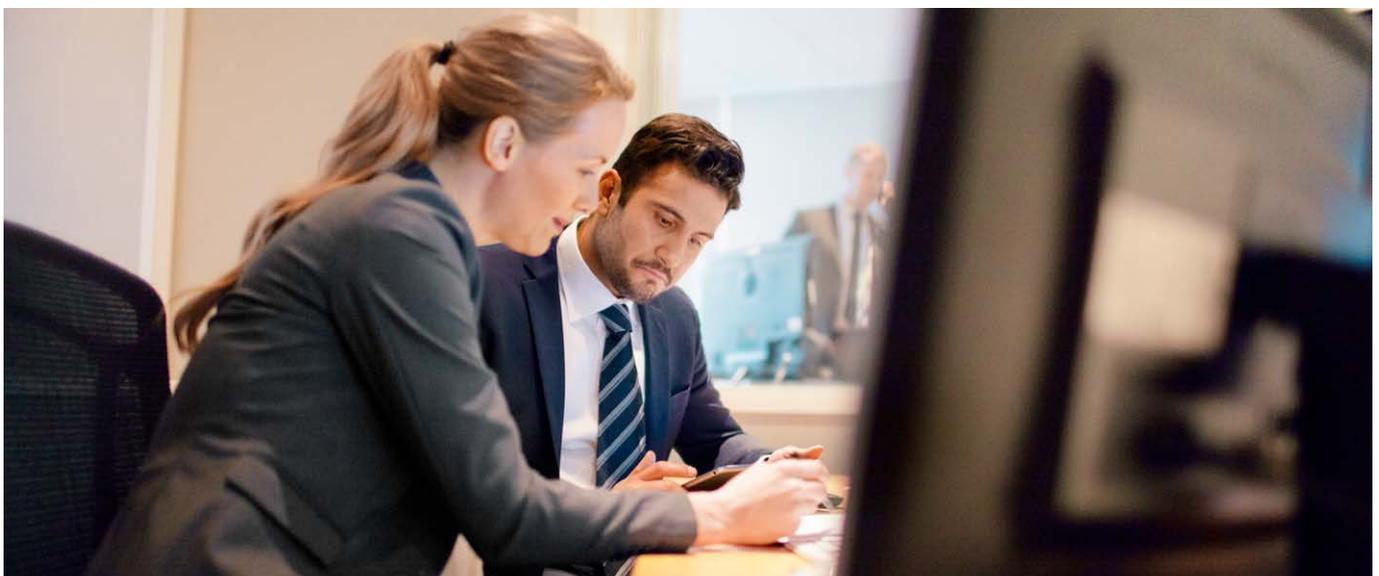
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Biodiversity degradation and the transition to an economy that conserves and restores biodiversity may affect a company's value, business model and growth potential.

action on biodiversity. Regulatory risks include restrictions on access to land and resources, higher clean up and compensation costs, procurement standards as well as licensing and permission procedures. For example, the EU recently proposed a new law aimed at preventing the import of commodities linked to deforestation by requiring companies to prove their global supply chains are not contributing to the destruction of forests. Failure to comply could result in fines of up to 4% of a company's turnover. The law sets mandatory due diligence rules for importers into the EU of soy, beef, palm oil, wood, cocoa and coffee and some derived products including leather, chocolate and furniture. It is expected that legislators all over the world will tighten regulation on biodiversity in the coming years.

⁴ <https://www.oecd-ilibrary.org/sites/45adb0e-en/index.html?itemId=/content/component/45adb0e-en>

⁵ <https://www.unpri.org/download?ac=11357>





ANALYSIS: The largest Nordic companies underestimate the risk of biodiversity

As one of the largest investors in the Nordics, we naturally have an exposure to many of the largest listed Nordic companies. As a responsible investor, we are mindful of not only how investment performance is affected by sustainability factors, but also the material impact on society that our investment decisions may cause. To get a sense of our investment exposure to biodiversity risk as well as the adverse impact of our investments in Nordic companies, we seek to document the current state of biodiversity-related reporting in the Nordics, focusing on some of the largest companies in the region. We have made our selection from among the 25 largest companies in each country - Denmark, Finland, Norway and Sweden - using market capitalisation as the only screening criteria. This results in a total coverage universe of 99 companies⁵. These companies represent a wide cross-section of industries and sectors, each

having varying impacts and dependencies on biodiversity. In total, we cover 15 sectors and 40 industries. Data used for the analysis was collected between April and June 2022.

Climate change is one of the main drivers of biodiversity loss. Nordic companies are clearly addressing climate change issues, as the majority of the companies have set CO2-reduction targets and report on their CO2 footprint. While climate change is a major driver of biodiversity loss, biodiversity loss in turn undermines nature's ability to sequester greenhouse gas emissions and protect the world against extreme weather events. This is often referred to as the twin crisis. Scientists suggest that society needs to solve the twin crisis by tackling

⁵ Denmark only have 24 companies in C25 given that Maersk have both A and B stock.

Figure 2: Climate assessment of Nordic companies

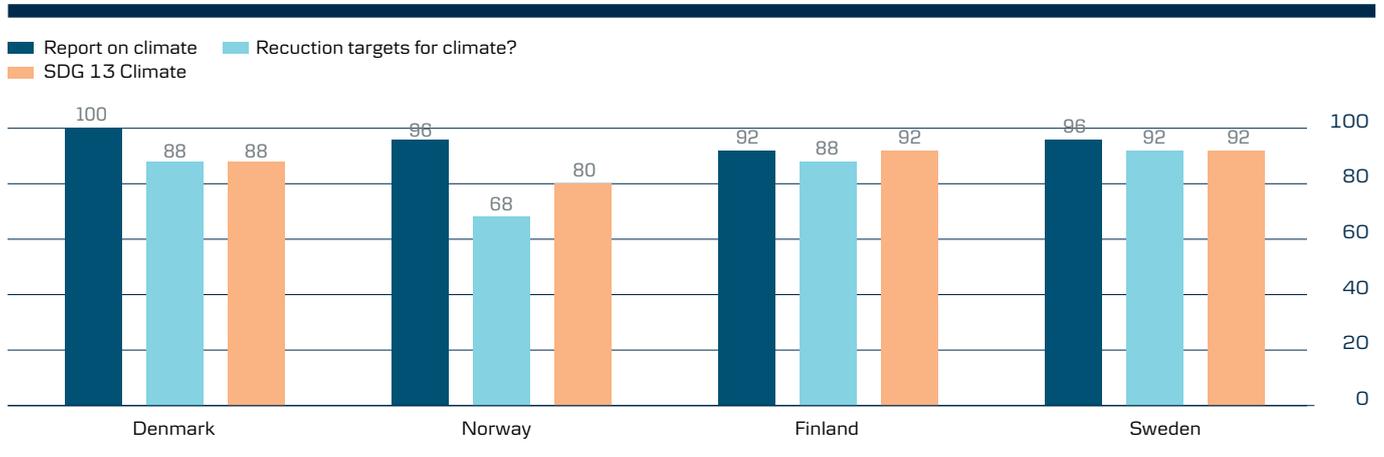
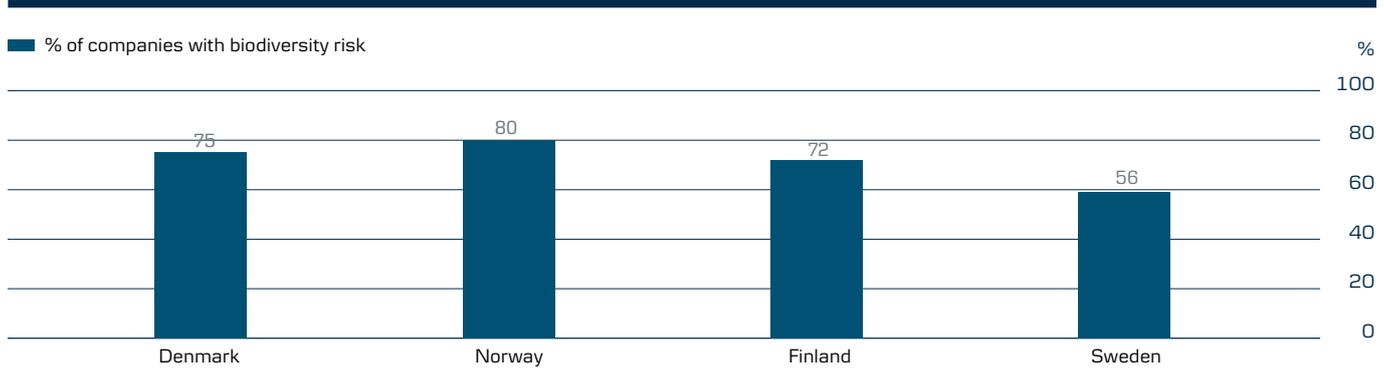


Figure 3: Biodiversity risk among Nordic companies



both climate and biodiversity issues together and not in silos. However, biodiversity seems to play less of a role for Nordic companies.

The Nordic countries have a long tradition of companies in the maritime, agriculture, energy, pharmaceuticals, etc. sectors. Many of these industries are either highly dependent on or have a large impact on biodiversity. Our finding is that 71% of these Nordic companies have either a dependency or an impact on biodiversity. Furthermore, 68% of the companies are in sectors that potentially have a moderate or high impact on key drivers of biodiversity loss.

However, even though they have a high exposure to biodiversity risk, Nordic companies are not setting biodiversity targets or reporting on their activities or impact. We find that less than 15% of the Nordic companies analysed have set a target to either reduce their impact or restore nature. Nordic companies do acknowledge to some extent that they have an impact or dependency on biodiversity, as a third of the companies report or describe activities within biodiversity, but these are often very vague or just refer to the UN's 17 sustainable development goals. Our findings are in line with a recent study from the Carbon Disclosure Project, CDP, which concludes that nature is a blind spot⁷ for companies around the globe, even though nature poses a financial risk, i.e. this is not just a Nordic phenomenon, but a global one.

Biodiversity is complex and there are many challenges to solve. However, two challenges that play a key role in fighting climate change are deforestation and our oceans. Forests around the globe are under pressure and the size of forested areas is declining at an alarming rate. Preserving our forests and their associated wildlife is important for the absorption of a large share of the world's CO2 emissions. Forests are also important suppliers to many companies within construction, agriculture and other areas. Oceans play an important role as well, and rising sea temperatures are disturbing and reducing animal

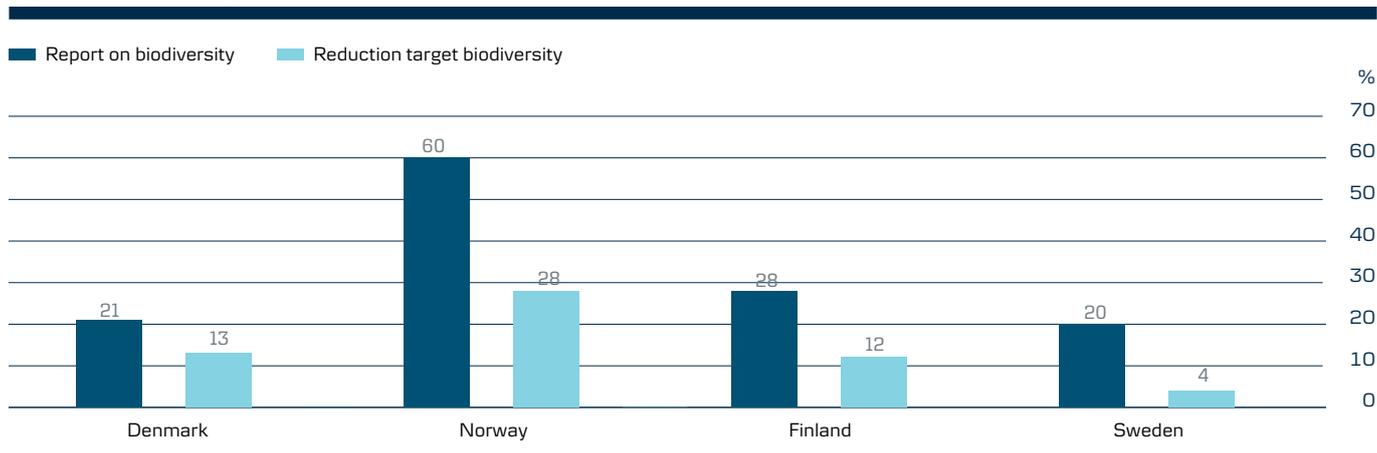
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Norway, Denmark and Finland are especially exposed to biodiversity risk given their high concentration of industries related to biodiversity risk.

and plant populations. As a result, companies risk not having access to the fish or organisms needed for food production or medicine. The tendency also exacerbates climate change, as seaweed, coral reefs and eelgrass in the oceans absorb a large share of the world's CO2 emissions. So, how are Nordic companies addressing ocean- and deforestation-related risks?

Nordic companies are underestimating deforestation risk. Deforestation poses a significant risk for global society and the fight against climate change. Even though deforestation often happens thousands of miles away from the Nordics, in South America, Africa or Asia, for example, Nordic companies are connected to this harmful activity. Estimates suggest European companies are responsible for 16% of the global tropical deforestation associated with international trade – mainly from the import of soy and palm oil. According to a WWF report, Denmark is per capita the third worst country in the EU in terms of deforestation and has more than twice the consumption of large economies like Germany and France. The EU is the second biggest perpetrator of deforestation after China, which is why the European Commission has recently proposed regulations to ban the import of commodities – particularly soy, beef, palm oil, timber, cocoa and coffee – that cannot be proven to be “deforestation free”. Hence, companies will experience tighter regulation on deforestation going forward. Are they prepared?

⁷ https://cdn.cdp.net/cdp-production/cms/reports/documents/000/006/132/original/CDP_Europe_Report_-_Now_For_Nature.pdf?1646826774

Figure 4: Biodiversity assessment of Nordic companies



Our findings indicate that 37% of these Nordic companies are operating in sectors potentially linked to deforestation, yet only a few have set targets or report on deforestation. Nordic exposure to deforestation is primarily driven by sectors such as Financials, Extractives & Mineral Processing and Food & Beverages. One example is soybeans, which are made into soybean oil for cooking and are consumed by, for example, salmon and poultry as soy meal, so emissions from soy-related deforestation are embedded in those products.

Nordic companies are exposed to ocean-related risks All over the world, including in the Nordics, our quality of life and economy depend on the oceans. The oceans around us are home to a host of species, habitats and ecosystems that our livelihoods depend on. They provide us with vital resources and services, such as food, energy, clean air and climate change mitigation - so, we all need to take good care of our oceans. But are Nordic companies aware of their dependency as well as their impact on the world's oceans?

Nordic companies operate in sectors that could potentially have an impact on our oceans. These include shipping, metals and mining, meat, poultry & dairy (and fish) as well as oil & gas. We estimate that more than 65% of our surveyed Nordic companies are in sectors that are either dependent or have an impact on our oceans. The impact that Nordic companies have on our oceans comes in many shapes and forms, such as underwater noise, which disturbs sensitive species that rely on underwater acoustics; physical pollutants, such as oil spills, agricultural runoff and human waste as well as invasive organisms. Even though Nordic companies have adverse impacts and ocean-related risks pose a material risk for companies, we find that only 7% of the Nordic companies have set a target to minimise impact or restore the oceans. This trend cuts across the Nordics and strongly indicates that ocean-related risk is a biodiversity issue that is highly underestimated by Nordic companies.

Figure 5: Deforestation assessment of Nordic companies

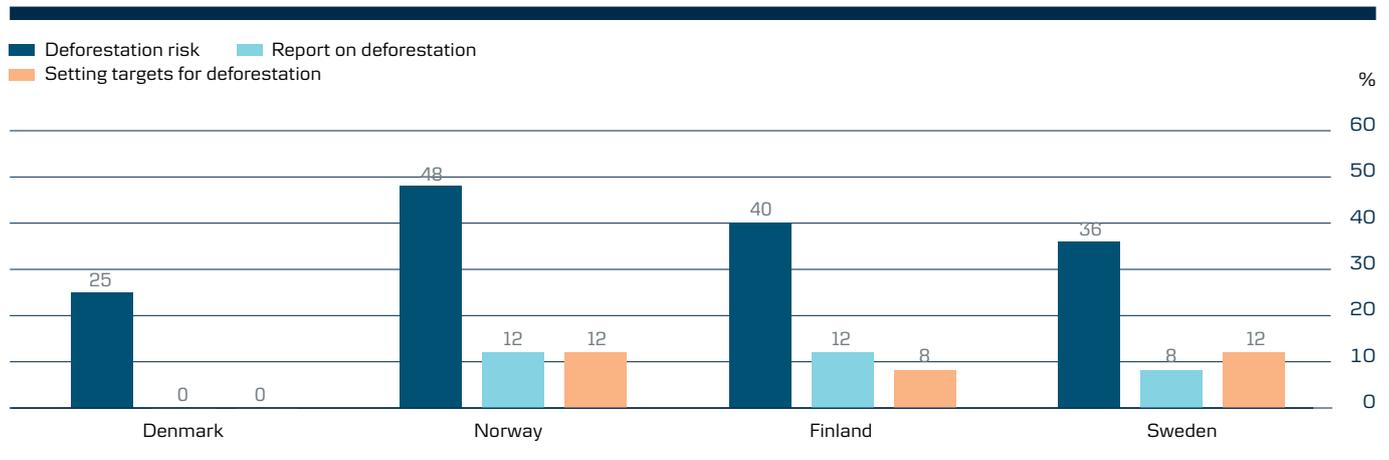
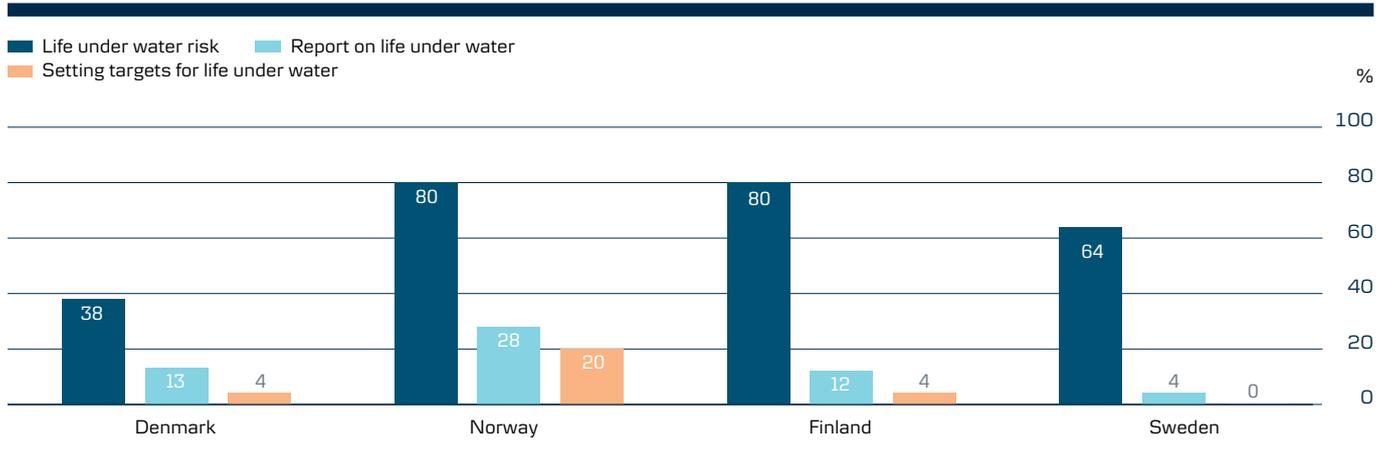


Figure 6: Ocean assessment of Nordic companies





Conclusion

The planet's biodiversity and ecosystems are in crisis. This is primarily due to humanity's impact on nature and the fact that for far too many years we have neglected to restore nature and its ecosystems. Many companies in which we invest are both dependent on the nature but also negatively affect nature through their activities. Therefore, the biodiversity crisis poses an investment risk for us as an investor. The deterioration of biodiversity and the transition to an economy that preserves and restores biodiversity can affect the value of companies, their business model and growth potential. The deterioration of biodiversity can, for example, have an impact on the price of raw materials, lead to disruptions in the supply chain, or that a company must be responsible for the restoration of nature. The risks of the transition to an economy that preserves and restores biodiversity typically consist of stricter legislation that tightens the grip on companies, changing consumption patterns or new business models that take nature into account.



It is our job as an investor to analyze, identify and assess how companies are affected by these risks and opportunities.

The biodiversity crisis and the transition to an economy that preserves and restores nature creates a number of risks and opportunities. It is our job as an investor to analyze, identify and assess how companies are affected by these risks and opportunities. We do this, for example, when we include sustainability risks in our investment analyzes, in our active ownership and when we deselect companies through our exclusions. It immediately sounds easy and straightforward, but the biodiversity crisis is extremely complex both for us as an investor and for the companies we invest in. There are several challenges, for example, biodiversity lacks a global agreement such as the climate in the Paris Agreement, which can be translated to concrete goals for investors and companies. At the same time, there are also challenges with data, measurement standards

and a lack of understanding about biodiversity in general, which is why for many investors and companies it has not received the necessary focus for several years.



As a responsible investor, we are mindful of not only how investments performance is affected by sustainability factors, but also the material impact on society that our investment decisions may cause.

As one of the largest investor in the Nordics we naturally have an exposure to many of the largest Nordic listed companies. As a responsible investor, we are mindful of not only how investments performance is affected by sustainability factors, but also the material impact on society that our investment decisions may cause. In this whitepaper we seek to uncover if the largest companies in the Nordics acknowledge the biodiversity crisis i.e. their dependency as well as their adverse impacts from their activities. We assess if Nordic companies are reporting on biodiversity as well as setting targets to mitigate their physical and transitional risks stemming from biodiversity.

We conclude that 71% of the Nordic companies are exposed to biodiversity risk and that for the majority for the companies the biodiversity crisis is a material risk. However, even though the biodiversity risk pose a risk for the Nordic companies we find that less than 15% have set a target to reduce their impact or to restore nature. The white paper also zooms in on biodiversity issues such as deforestation and oceans. Both biodiversity challenges are underestimate by Nordic companies. We find that more than 65% of the Nordic companies are within sectors that are either dependent or have an impact on our oceans but only 7% have set a target to minimize or restore their impact.

APPENDIX A

Methodology: Assessing company biodiversity risks

In order to get a sense of how material biodiversity risks are for each company, we assess exposures and disclosures across a number of dimensions:

Is the company part of an impact or dependence sector?

We leverage the definition of 'highest impact sectors' and 'highest dependence sectors' used in the UN PRI report Investor Action on Biodiversity: Discussion Paper⁸. Using this, we determine whether or not a company is an impact or dependence based on its sector (Figure X). We describe this as biodiversity risk.

What is the level of exposure to biodiversity risk?

We leverage the research from an F&C report Is biodiversity a material risk for companies⁹. Using this, we determine the level of sector's exposure to biodiversity risks. The levels goes from having a low, medium or high biodiversity risk.

Is the company exposed to biodiversity risk, and what is the level of this risk?

In order to provide an overall assessment of biodiversity risk for a given company, we determine that if it fulfils the condition of being in either being an impact or dependence sector, and / or it has a net negative impact on the SDGs 13, 14 and 15, it is exposed overall to biodiversity risk.

Are companies reporting?

We assess if companies are reporting on climate and biodiversity. We have used companies' websites and sustainability reports to assess whether companies are tracking progress on climate, biodiversity as well as issues with deforestation and life under water for those companies that are exposed to the risk. In essence are the companies making at least an elementary effort to acknowledge the risks and opportunities linked climate, biodiversity and sustainability more broadly? Our expectation is that the vast majority of companies should be addressing these issues at least at a high level.

Have companies set a target?

We assess if companies have set a target on climate and biodiversity. We have used companies' websites and sustainability reports to assess whether companies have set a target on climate and biodiversity. We also assess if companies want to avoid harm to biodiversity without setting targets. We look for companies that e.g. mention SDG 13, 14 and 15. Companies that mention the relevance of biodiversity and their impact on nature.

Is deforestation a risk for the company?

We assess a company's exposure to deforestation through mapping its sector to those flagged by Ceres as having likely exposure to deforestation. Ceres' sector and industry assessment examines exposure to deforestation through the sourcing of commodities that are understood as being key drivers of deforestation. This is to get a greater understanding of whether companies acknowledge, measure and account for the deforestation risk through either their operations or supply chain?

Is life under water a risk for the company?

We use data from third party vendor Util to map each company's product and services impact on life under water. Util data enables us to assess how each company's products and services both positively and negatively impact the SDG 14 Life under water. We use this an indicator of whether a company have a life under water risk exposure. This is to get a greater understanding of whether companies acknowledge, measure and account for adverse water and marine impacts?

⁸ <https://www.unpri.org/download?ac=11357>

⁹ <http://www.businessandbiodiversity.org/pdf/FC%20Biodiversity%20Report%20FINAL.pdf>

¹⁰ *Investor Guide to Deforestation and Climate Change | Engage the Chain*

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