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The hidden costs of nature loss

Quarterly report Sustainable Investing | First Quarter 2024

Introduction

The best things in life are free

Dennis van der Putten

Chief Sustainability Officer

The Netherlands ranks in the top 10 of global heavy consumers of raw materials. After just one quarter, we have already consumed as much raw materials as the Netherlands can produce in a year. Hence, we rely on sourcing raw materials from other parts of the world, such as to provide food for our livestock. This importation contributes to issues like deforestation in South America. If everyone worldwide maintained our level of consumption, we would need four Earths. Currently, the global capacity of 1.75 Earths is being consumed by humanity.

The pressure on raw material consumption in the Netherlands is so high that there is even a threat of a shortage of drinking water for businesses and for connecting new residential buildings. The causes include evaporation due to warming, water needed for agricultural irrigation, insufficient or excessive rainfall that is quickly drained away. Apart from concerns about quality, there are also (local) question marks about the quality of the groundwater used. Manure, pesticides, and PFAS pose significant threats to water quality and drinkability. Besides impacting water, these are also threats to biodiversity. Once again, the Netherlands ranks high in these aspects and is nearly a world leader in biodiversity loss.

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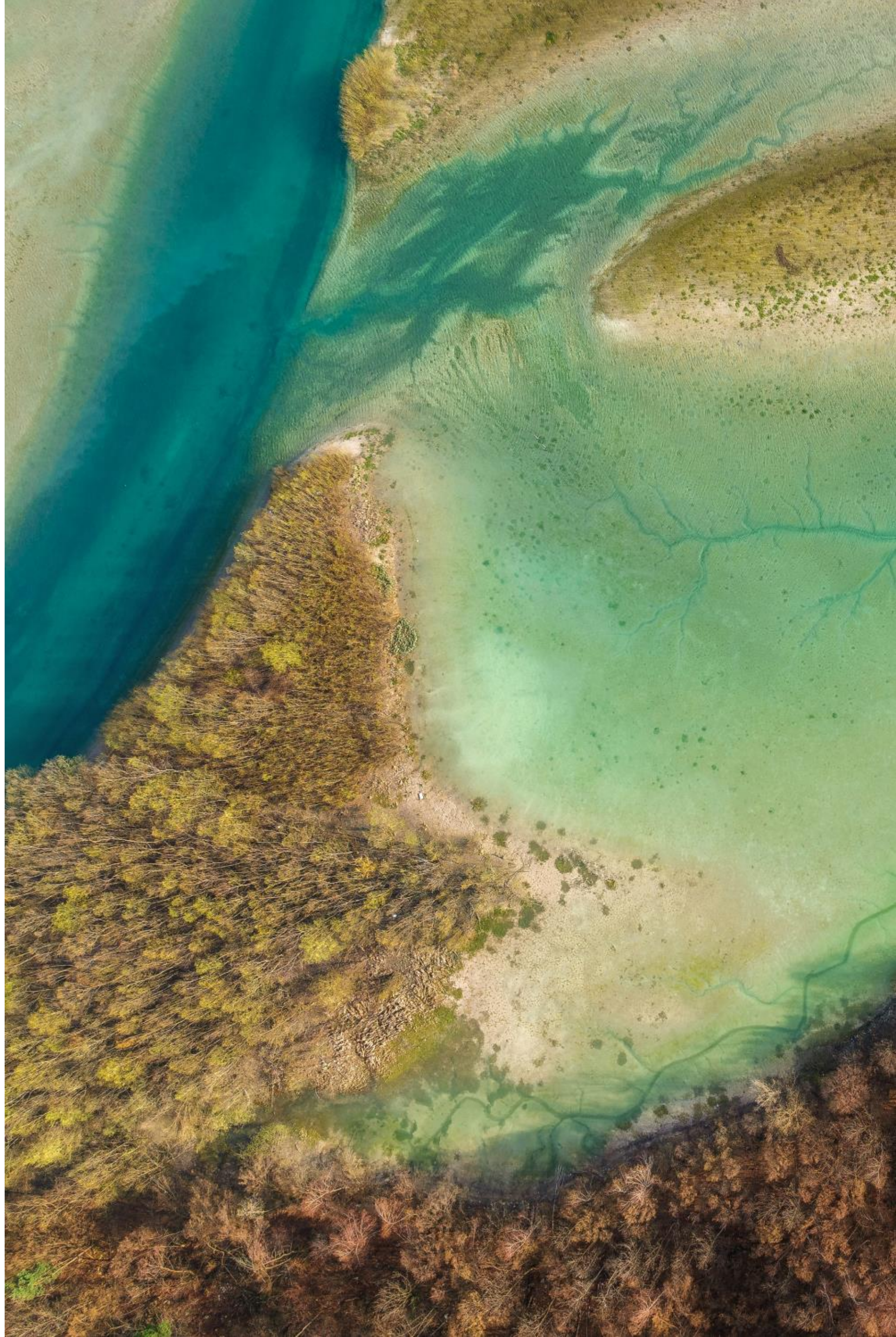
The best things in life are free

These developments entail significant economic risks. The Dutch Central Bank has calculated that Dutch banks, insurers, and pension funds have outstanding financings totaling 510 billion euros globally to companies highly or very highly dependent on nature. Additionally, there is 97 billion euros in financing to companies involved in environmental pollution. Furthermore, approximately half of the world's GDP is to some extent dependent on nature.

There are compelling reasons to protect and restore nature. Investors have already mobilized in initiatives such as Nature Action 100 or the Platform for Biodiversity. However, the greatest challenge remains making the (financial) impact and risks measurable and transparent. The most recent development in this regard is the TNFD (Taskforce on Nature-related Financial Disclosures). The aim is to make 'nature' an integral part of the decisions companies make, moving away from negative impacts on nature.

The primary reason we continue to deforest, pollute, and extract almost limitlessly is due to the lack of pricing in the negative impact. The negative impact and systematic exceeding of our planet's boundaries are virtually free. Until we realize the true costs of living 'on credit'.

Cardano is an early adopter of TNFD and advocates for making (financial) impacts visible across various scenarios.



News and trends

Developments in the first quarter

In this chapter we describe the latest news and developments in the field of sustainable investing.

PRI Spring intiative

Cardano is taking part of the new biodiversity-related engagement program from the Principles for Responsible Investment (PRI), Spring. The program encourages companies to publicly commit to taking action to halt and reverse biodiversity loss by 2030, with a focus on forest loss and degradation. Different from other biodiversity-related engagement programs, this program's high-level objective is for companies to publicly commit to aligning their direct and indirect political engagement activities with the missions of the Global Biodiversity Framework. Corporate engagement on environmental policy can play a critical role in helping governments create practical policy solutions, while negative and resistant corporate interest can hinder policy action that aims to prevent biodiversity loss. The companies have been selected based on their political influence of the identified policies. It's expected that engagements will start later in 2024. Greta Fearman, the head of Cardano's engagement team, is part of the PRI Spring Advisory Committee that is providing input on the methodology for selecting companies. Beyond the work of the Advisory Committee, Cardano will sign on as a lead engager for the program for one company.

Cardano continues to be part of the Nature Action 100+ program, that engages with 100 companies in key sectors that are systemically important to reversing nature and biodiversity loss. It covers different drivers of biodiversity loss such as overexploitation of resources, land use changes, and contribution to soil, water, and solid waste pollution.

Sustainability-related fiduciary duties

FINANCIAL MARKETS LAW COMMITTEE

Recently, @Pensions for Purpose organized a meeting on interpreting fiduciary duties. A recent FMLC paper made it abundantly clear that trustees are free to, and indeed have a fiduciary obligation to take financially material sustainability issues into account in their decision making.

Keith Guthrie, Cardano Head of Sustainability UK, concludes that the logical consequences of the paper go much further: trustees must also consider the real-world contribution of their investments to systemic sustainability risks like climate change. The FMLC paper makes it clear that sustainability factors which are financially material can be considered not only at the level of the individual investment, but also at the level of the overall portfolio or indeed the economy as a whole. Climate change and other systemic sustainability issues like biodiversity loss will clearly affect long term economic growth, inflation, and government policy decisions in the coming years and hence economic and portfolio outcomes. These systemic risks cannot be diversified away at the portfolio level. It is therefore in members financial interests that trustees focus on the real-world impacts that their investments make on climate change and similar issues. By supporting the transition to a net-zero world, trustees reduce longer term systemic financial risks for their members.

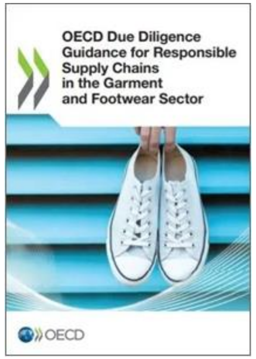
Cardano encourages trustees to set both a financial objective and a real-world objective to support the transition towards a sustainable society (a double materiality approach) because this will directly contribute to reduced systemic risks that members are exposed to in in the long term.

News and trends

Developments in the first quarter

2024 OECD Forum on Due Diligence in the Garment and Footwear Sector

In February, the OECD held its 10th Forum on Due Diligence in the Garment and Footwear Sector. This annual event takes place at the OECD Conference Centre in Paris and brings together representatives from government, business, trade unions, and civil society. The forum reviews progress on the OECD Due Diligence Guidance for Responsible Supply Chains in the Garment and footwear Sector. It addresses challenges, risks, and solutions related to implementing due diligence in the sector. By bringing together many different stakeholders, it allows fruitful discussions and collaboration in a neutral environment, holistic insights and learning exchange. Responsible business conduct and risk-base due diligence are key to build supply chain resilience, manage uncertainty and drive long-term value. Some highlights of the 10th forum include:



- the important role binding company-union agreements have in bringing change which affects workers in a sector characterised by power imbalances
- how responsible purchasing practices are essential to battle poor labour conditions and unsustainable low wages
- how audits and certifications are not sufficient and cannot replace a comprehensive due diligence
- the key role of grievance mechanisms in the due diligence process

UN General Assembly Resolution on Seizing the opportunities of safe, secure and trustworthy artificial intelligence systems for sustainable development

In March, the UN General Assembly adopted the first standalone resolution on the Artificial Intelligence (AI) which emphasizes the need of "safe, secure and trustworthy artificial intelligence systems". It recognizes the role of AI in helping achieve the Sustainable Development Goals but also highlights that such systems must respect human rights and international law. Although non-binding, the resolution was adopted unanimously by all 193 member states and adds to the efforts to establish global norms for responsible AI use. The question is now whether member states will implement adequately strong AI regulations. It is indeed essential for the sustainable transition to develop AI systems which are fair, safe, transparent and that protect human rights.

Regulatory update: Corporate Sustainability and Groundbreaking Climate Litigation

In this quarterly report, we kick off with a legislative update on two significant EU developments for larger enterprises.

Corporate Sustainability Reporting (CSRD / ESRS)

The EU Corporate Sustainability Reporting Directive (CSRD), succeeding the EU Non-Financial Reporting Directive (NFRD), imposes requirements on sustainability reporting in the financial statements of European enterprises subject to this regulation. Since January 1, 2024, the initial sets of mandatory additional standards (European Sustainability Reporting Standards, ESRS) for this reporting have been in effect. The European Financial Reporting Advisory Group (EFRAG) has also published accompanying information, providing clearer expectations regarding both content and presentation from enterprises.

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News and trends

Developments in the first quarter

Regulatory update: Corporate Sustainability and Groundbreaking Climate Litigation

The principle of 'double materiality' takes center stage in sustainability reporting. Reporting is conducted through an independent analysis of both the impact of enterprises on sustainability issues and the risks and opportunities of sustainability issues on the enterprises. The outcomes of this analysis determine what is reported. Furthermore, the information should cover both the company's own activities and its value chain, including upstream (suppliers) and downstream (customers).

Enterprises are required to provide a description of their business model, sustainability policies, sustainability objectives, the role of the board of directors and supervisors in these objectives, the applicable due diligence procedures, the main sustainability risks, and relevant indicators for all of these aspects. Sustainability reporting, including the 'double materiality' analysis, is subject to an (initially limited) audit.

The implementation of sustainability reporting is phased, depending on the nature and size (balance sheet, turnover, and/or personnel) of the concerned enterprise. The group already covered by the NFRD must comply starting from the financial year 2024. The CSRD expands the group of reporting entities to large companies (from the financial year 2025), small and medium-sized public-interest entities (from the financial year 2026), and large subsidiaries and branches of non-EU enterprises (from the financial year 2028).

The next sets of sector-specific ESRS and the ESRS for non-EU enterprises will be delayed. Originally scheduled for June 30, 2024, the European Commission has proposed postponing them for two years. Meanwhile, the first NFRD reports in "CSRD" style are being published. Cardano is also advising its clients on the implementation of CSRD and assisting them with tasks such as conducting materiality analysis and developing the framework and data points for their first CSRD report.

Corporate Sustainability Due Diligence Directive (CS3D)

There has been considerable debate within European legislative bodies regarding the Corporate Sustainability Due Diligence Directive (CS3D), but ultimately, the European Council managed to reach a compromise in March after a short delay and several adjustments, and it appears that the Directive will indeed be enacted. The European Parliament will now vote on it in April, and upon approval, it will be published in the EU Official Journal.

The main compromise within the Council concerns limiting the scope to EU and non-EU companies operating in the EU with a global turnover of EUR 450 million (previously EUR 150 million) and a workforce of 1000 (previously 500). This is estimated to affect 70% fewer enterprises than in the original proposal. Furthermore, the Directive will be phased in over a period of 3 to 5 years, depending on the size of the concerned enterprise.

The Directive will subject in-scope enterprises to far-reaching obligations to conduct due diligence and prevent, mitigate, remedy, and account for actual and potential adverse impacts on human rights and the environment. Like the CSRD, this applies to both the company's own activities and the entire value chain (initially only upstream for the financial sector). Additionally, obligations regarding a grievance mechanism, communication on due diligence policies, and monitoring thereof apply. Enterprises - including the financial sector - will also be required to develop and implement a climate transition plan in line with the Paris Agreement.

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News and trends

Developments in the first quarter

Regulatory update: Corporate Sustainability and Groundbreaking Climate Litigation

Finally, enforcement is crucial, a controversial topic throughout the negotiations. In addition to public enforcement by supervisory authorities (including inspections and fines), the CS3D - currently unfamiliar to much EU regulation - includes provisions on civil liability. Involved individuals may be entitled to compensation, and they - as well as trade unions and civil society organizations - may file claims. It will be interesting to see how such civil claims will be handled in practice.

Historic Climate Litigation

As we write this quarterly report, there are two lawsuits that are so groundbreaking that we cannot wait until the next quarter to raise them.

Failing Climate Policy as a Human Rights Violation

On April 9, the 'Climate Grandmothers,' a group of over 2000 Swiss elderly women, were vindicated by the European Court of Human Rights. The Court ruled that Switzerland has "violated some human rights" under the European Convention on Human Rights by not doing enough to address climate change. It stated that the government must align its climate policy - supported by scientific evidence (and not solely based on political and societal considerations) - with international climate agreements to ideally remain below 1.5 degrees Celsius of warming.

The binding ruling of the Court could set a precedent for other climate cases, not only against countries. For example, human rights also play a role in the appeal in the case of Milieudefensie vs Shell. See more below. At the same time, two other climate cases were pending before the Court, but they were declared inadmissible. National courts will have to address them first.

Appeal Shell vs Milieudefensie

In the early April appeal before the Court of Appeal in The Hague, questions regarding the responsibility of companies for the emissions caused by the use of their products and the role of the judiciary are central.

Earlier, the court ruled that Shell has an obligation to reduce CO_2 emissions by 45 percent by 2030, which obligation arises from the unwritten duty of care laid down in the Dutch Civil Code. The court also considered human rights in interpreting that norm and referred to other judgments indicating that the invoked human rights provide protection against dangerous climate change. The reduction obligation concerns not only the company's emissions but also imposes a significant duty of effort to reduce the emissions of its suppliers and customers. This duty of care is being debated in the appeal, and if confirmed by the court, the extent to which it extends. And is this then a matter for the courts, or is it the government's responsibility?

The case was extensively discussed over four days of hearings. A ruling is expected in the autumn. The outcome of this case will certainly set an important precedent for other companies and is therefore being closely watched worldwide.

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Theme in focus

Wild plans? Why investors should be weary of watering down nature regulations

Arjan Ruijs
Responsible investment officer
Cardano

Last month, Dutch parliament decided to vote against the European Nature Restoration Law. The law, which had already passed EU parliament, awaited individual country approvals. Because of the dwindling Dutch support and that of other EU member states, the law was dropped from the EC agenda. It is uncertain whether the law will ever see the light.

The law was already watered down after massive farmer protests in several European countries. And, with the European elections upcoming in June, parties are reluctant to vote for new regulations that may chase voters in the arms of populist parties. Also in the UK, farmers are protesting rules to rewild agricultural lands, stating that this will jeopardise food production and food security. As such, protecting nature seems to be opposed to the interests and business models of farmers, the food industry and their investors. But is this true? This article tries to answer in four questions what the failure to implement stricter nature regulations may imply for finance and the food industry.

Why do the EU and UK want new nature restoration regulations?

In the EU, 81% of habitats are in a poor state and 60% of the surface water bodies do not achieve a good ecological status. In the UK, media report that river water is a 'chemical cocktail' of sewage, agricultural and road pollution and nearly one in six species are threatened with extinction.

New nature regulations can tackle these problems. The European Nature Restoration Law is an integral part of the EU Green Deal aimed at achieving sustainability, climate neutrality, and environmental protection within the European Union. Both in the EU and the UK, new nature regulations are part of the Kunming-Montreal Global Biodiversity Framework agreed upon in 2022. The new regulations should increase protected areas and restore degraded lands, thus enhancing biodiversity and securing nature's capacity to clean Europe's water and air and to pollinate crops. Nature restoration also helps to limit global warming to 1,5^{o}C and to maintain Europe's resilience, through preventing natural disasters and reducing corresponding risks to food security. Next to that, improved nature quality will reduce premature deaths and improve health and welfare for European citizens. It has been calculated that every Euro invested into nature restoration will lead to 4 to 38 euros in benefits.

Why have the original plans been watered down?

Massive farmer protests in many European countries are the main reason for the European Commission to water down its proposed nature regulation. Stricter nature regulation does not come for free. Farmers argue that leaving more land fallow, restoring drained peatland, and banning use of certain crop protection chemicals leads to loss of valuable agricultural land, higher costs, lower productivity, and a higher administrative burden. This leads to higher food prices and less farmers, which could threaten food security in Europe. It also leads to higher food imports from regions with weaker nature regulations. Also feed and crop protection producers and other food processing companies see their business model endangered by the new regulations and warn for the potential impacts of the stricter nature regulations on their financial situation.

With elections upcoming in Europe and with the upswing of populist parties throughout Europe, traditional political parties are reluctant to antagonize potential voters. As a result, they give in on measures that may on the short term negatively impact influential groups. But, of course, this doesn't take away the problem. It merely shifts it to future generations.

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Theme in focus

Wild plans? Why investors should be weary of watering down nature regulations

Is watering down the plans good for investors on the short term?

At first sight, watering down the regulations seems to be a victory for farmers. In the short term, rules will be less strict, keeping the agricultural system largely intact, with lower impacts on food processers, transport companies, feed producers and retailers, and therefore on food prices and on financial markets. One of the arguments against the new nature regulations was that it was too much too fast. Many farmers are stuck in a system where they are forced to compete for the lowest price to retain their market share. The interplay between regulation, upstream feed and agricultural input companies and downstream commodity traders and retailers, gives them little room to manoeuvre, with high costs and low margins. Even though many agree that this system is untenable in the longer term, the proposed regulations would give them even less leeway. It would put great pressure on the sector to transition to cleaner ways of production, with alternative crop protection, less nitrogen deposition and less emissions in a short period of time.

The concern, however, is whether postponing nature regulations gives the market the incentive to accelerate the required transition. In addition, delaying stricter regulations for the agricultural sector may increase uncertainty for other sectors. Costs will increase for companies reliant on clean water and obtaining environmental permits may become more complex for construction companies or companies expanding their facilities. Governments will face higher environmental management costs leading to higher taxes or less investments in other parts of society. And, innovative agro-tech companies are expected to face headwind due to prolonged competition with traditional, intensive methods of food production.

What does it mean for investors in the longer term?

The nature regulations were set up for a reason. As postponing the regulations doesn't mean that they are cancelled, the delays create additional long-term uncertainty. Future regulations may be harsher, and more harmful for farmers and the market as it gives them less time to adapt if environmental conditions continue to deteriorate. But more importantly, further delays increase systemic risks, especially the risk that Europe's state of the environment crosses tipping points and ends up in a state of nature where everybody will be worse off. We are in a *tragedy of the commons* situation, where focused on short-term profits for ourselves, we fail to make the right choices necessary to drive the longer-term transition that benefits all.[1] It is known that in the longer term, biodiversity loss and environmental degradation lead to higher costs, disrupted ecosystem services, higher healthcare costs, lower agricultural productivity, and lower attractiveness of touristic areas. The consequences for Europe's competitive advantage, growth potential and society, and therefore for financial markets, should be obvious.

To conclude, many farmers and political parties cried victory with the refusal of the Dutch government to vote in favour of the European Nature Restoration Law. But this may turn out to be a Pyrrhic victory – the long-term costs may outweigh the short-term benefits. In the end the transitions are unavoidable and further delays will only lead to higher costs and more market uncertainty, which goes far beyond the agricultural sector but may impact all sectors and the entire society.

1. The Tragedy of the Commons is a concept in economics and environmental science that describes a situation where individual users, acting independently according to their own self-interest, deplete shared resources, leading to the detriment of the entire community.

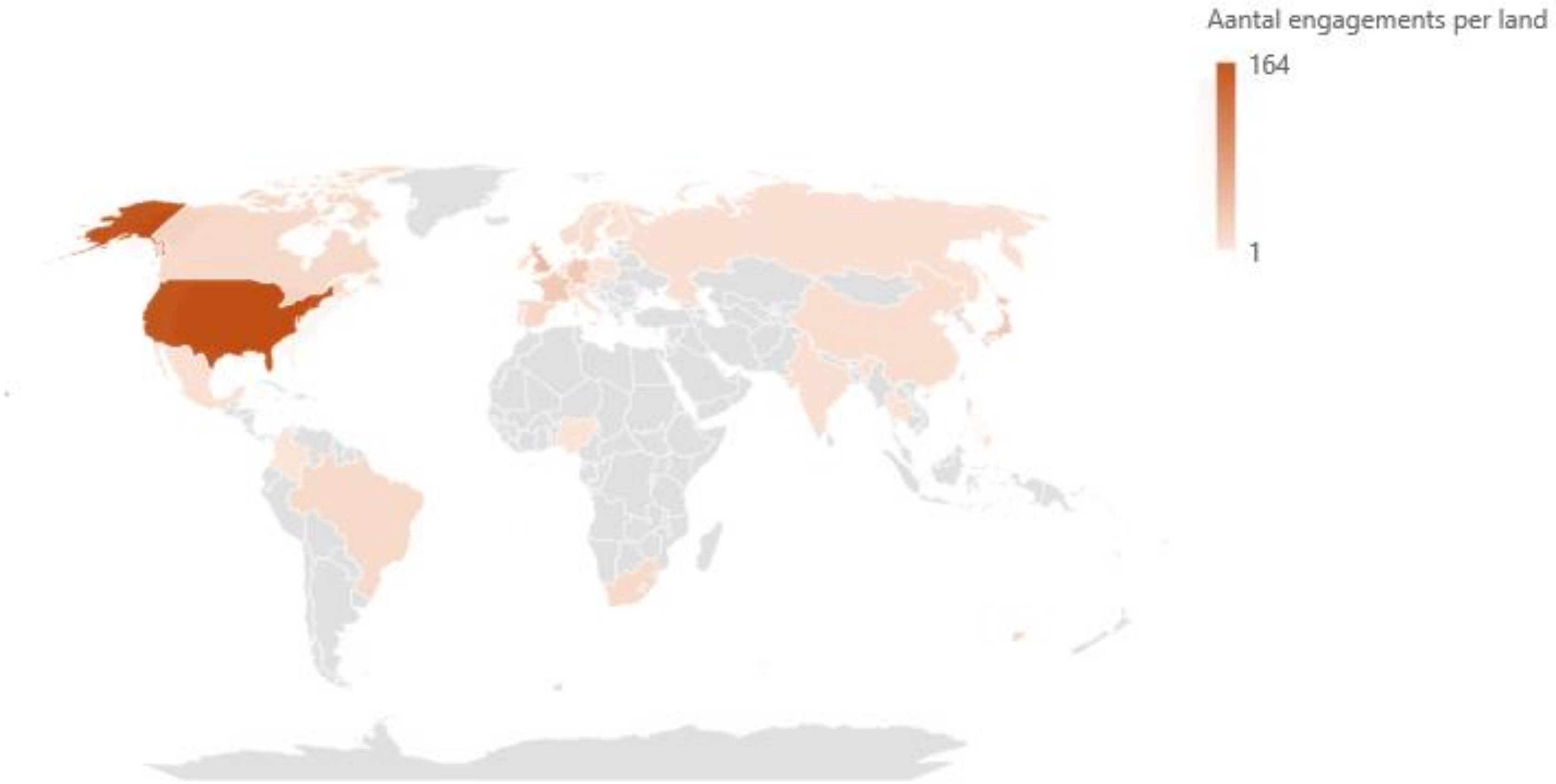
Stewardship

Number of active engagements and geographical spread

189
companies with active engagements

232
total active engagements

266
passive engagements (signatory only)



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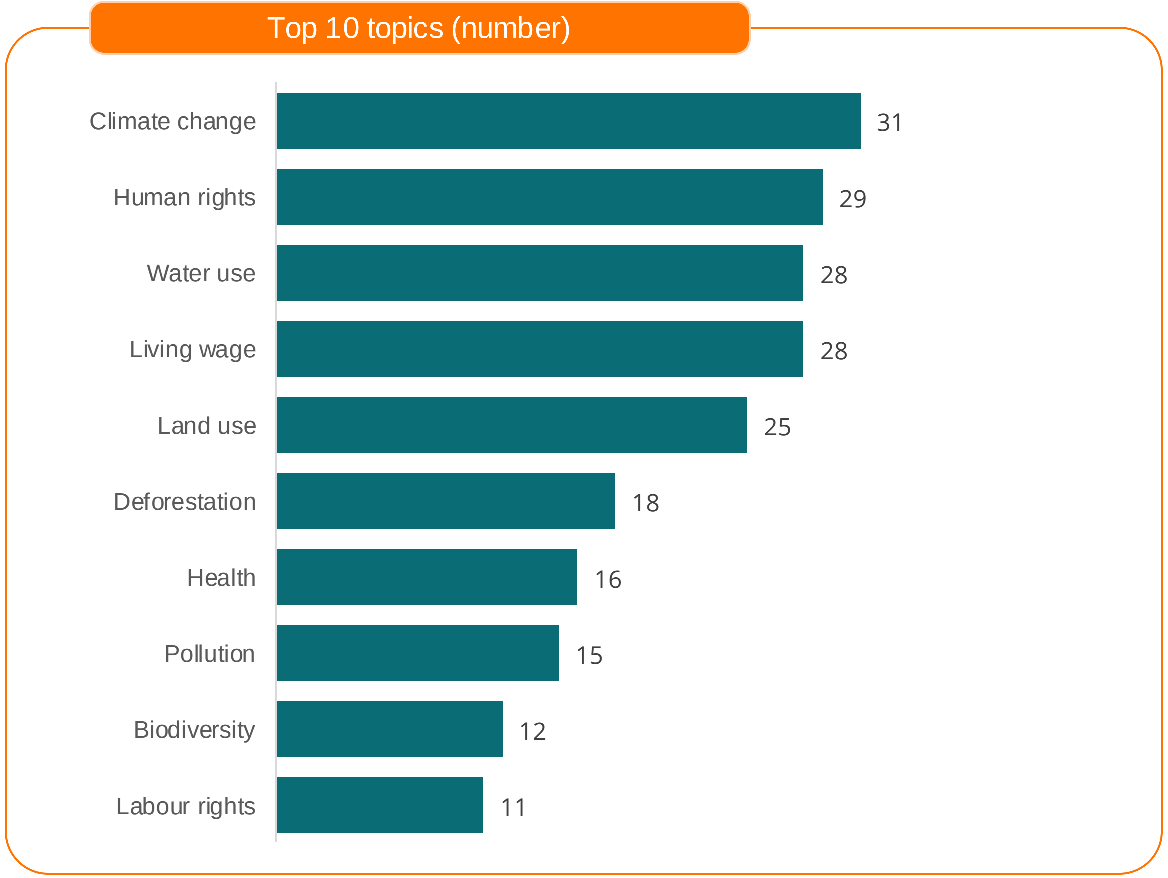
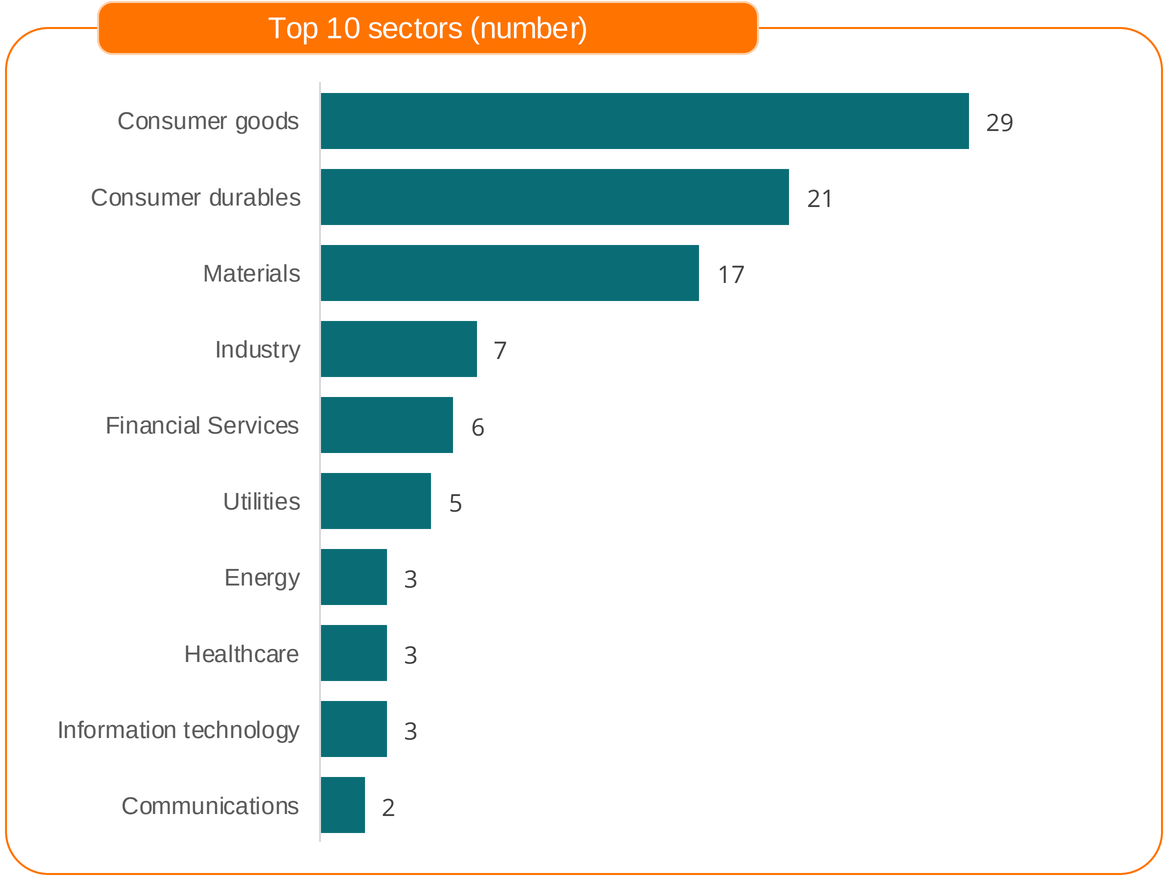
Stewardship

Topics and sectors of engagements





These charts show the number of engagements we carried out by topic and sector.

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Stewardship

Progress in engagements

Progress in this quarter[1]

	Description	Progress
1	Problem communicated	2
2	Problem recognised by company	2
3	Action taken	5
4	Action completed	0

Engagement finished as successful	0
Engagement finished as neutral	11
Engagement finished as unsuccessful	5

Milestone system

Milestone 1	Milestone 2	Milestone 3	Milestone 4
Contact company – We have reached out to the company	**Understanding –** The company has acknowledged our interest in a dialogue and there is awareness of our objectives	**Action taken –** There has been observed progress on one or more objectives	**Action successfully completed –** The company has made progress and met the majority of the objectives

[1] *Engagements without milestones are excluded from this overview.*

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Stewardship in practice

Living Wage at Sainsbury’s

Human capital management is a crucial sustainable driver for a company. It includes labour rights, health and safety, and practices affecting education, income, and gender equality. Proper human capital management mitigates legal risks, enhances company performance, and fosters social stability, reducing long-term systemic risk.

The payment of a living wage is one component of good human capital management and a key topic in the engagements done by the ShareAction Good Work Coalition, which we are an active member of.

The collaboration engages the UK Retail sector on working practices with a focus on insecure work, workforce disclosure, living wage, and diversity and inclusion. As part of the work on living wage, the main objectives of the engagements with the companies engaged are:

- Go beyond legal minimum wage requirements and pay a Real Living Wage as set by the Living Wage Foundation to all direct employees
- Improving oversight of regular third-party contracted worker staff pay levels and work towards implementation of the real Living Wage for these workers
- Become accredited as a Read Living Wage Employer with the Real Living Wage Foundation.

Sainsbury’s is one of the companies we have engaged on living wage and there has been significant progress achieved on this topic:

- In January 2022, after several dialogues and the co-filing of a shareholder resolution by some members of the coalition, including Cardano, Sainsbury’s updated its wage rates so that all direct employees received at least the 2022 Real Living Wage.
- In 2023, the dialogue continued with the company and a call was held with several senior executives, including the CEO, where Sainsbury informed the collation that their security third party staff was now also receiving Real Living Wage rates.
- In December 2023, the coalition sent a letter to Sainsbury acknowledging the steps already made and asking the company to continue the dialogue on payment of the real Living Wage for direct employees and third-party staff.
- In January 2024, the company announced it had raised its rates for direct employees, which now follow the updated 2024 Real Living Wage rates.

The next call with Sainsbury’s and the coalition will be planned in the coming months.

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Stewardship in practice

Collaborative investor engagement informs Barclays' new oil and gas policy

Following a constructive engagement, Barclays has published a comprehensive update of its oil and gas policy for the first time since 2020. Barclays was targeted for engagement as part of the ShareAction coordinated banking sector initiative, because of its high exposure to fossil fuel assets and its oil and gas policy which continued to lag global leading practice. Barclays is therefore exposed to stranded asset risk representing a financial risk to the bank and its investors.

Key objectives of the Barclays engagement are (1) stop directly financing new oil and gas fields, (2) exclude financing for all pureplay oil and gas companies given their limited ability to transition and (3) introduce a requirement for its clients to provide a 1.5°C aligned climate transition plan.

To achieve the objectives we, together with 26 other institutional investors, wrote to the bank requesting it to stop directly financing new oil and gas fields by the end of 2023. Since the bank had neither responded to the letter nor acted on the group's key asks at the end of October 2023, the engagement group including Cardano decided to further escalate by co-filing a shareholder resolution. Barclays then showed willingness to discuss the resolution's key asks with the engagement group. This included two meetings and additional communication by e-mail.

Following the dialogues, Barclays updated its oil and gas policy. The new policy contains several positive developments, including a commitment to stop financing new oil and gas projects directly, to restrict financing for 'pureplay' upstream companies and to expect its energy clients to produce climate transition plans by January 2025. The bank has now met the first engagement objective and has made progress on the other two key asks. Given the progress and constructive dialogue, the group agreed to withdraw the resolution. Barclays also publicly committed to continue the engagement in 2024, stating on its website that the policy changes were informed by engagement with stakeholders, including shareholders, clients, climate experts and civil society groups, including ShareAction, confirming the group's influence and effectiveness of the engagement.

The engagement will continue this year as Barclays' new energy policy still enables the company to retain significant discretion over its continued support of oil & gas expansion activities that are incompatible with 1.5°C scenarios. The engagement group will therefore urge the bank to take further steps and will consider escalating again if it does not make sufficient progress this year.

See Q4 2023 report for more information about this initiative.

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Stewardship in practice

Nature Action 100 Engagement program to kick-off

Nature Action 100 company engagement kick-off

Nature loss causes negative economic repercussions globally. Depleting natural capital creates significant near-term operational costs for companies, threatens the supply of critical resources, and puts more than half of global GDP at risk[1]. To address these issues and to operationalise the biodiversity strategy, we participate in Nature Action 100, a global investor-led initiative working to drive the necessary corporate action to reverse nature loss.

Investors participating in the initiative engage companies in key sectors deemed systemically important to reversing nature and biodiversity loss by 2030. As of January 2024, more than 200 institutional investors – representing over USD 28 trillion in assets under management or advice – from around the world, participate in Nature Action 100.

Investor participants in Nature Action 100 signed initial letters to companies in September 2023, outlining six investor expectations around the companies' ambition, assessment, targets, implementation plan, governance and value chain engagement related to nature.

We have taken on the co-lead role for two companies in the chemical sector; Sherwin Williams and Asian Paints. Calls with the investor groups to strategize and develop the engagement plans for both companies have taken place. The engagement objectives align with the six investor expectations. Key topics include the assessment and disclosure of impacts, dependencies, risks and opportunities on nature, the management of hazardous chemicals, waste and water and product innovation. An initial call with Sherwin-Williams has been scheduled. We will provide updates later this year as the engagements progress.

Stewardship in practice

Closing of the Sustainalytics led Modern Slavery thematic engagement

We participated in the thematic engagement program led by Sustainalytics over the past three years, engaging companies in the Textile and Apparel sector and the Construction and Engineering sector to ensure modern slavery risks are robustly addressed, two sectors where forced labour is disproportionately represented.

Modern slavery represents material risks for companies, who are increasingly being held accountable for failures to address human rights risks in their operations and supply chain. By addressing modern slavery and implementing strong human rights due diligence, companies can mitigate the associated legal and reputational risks, as well as build more resilient supply chains. It also helps address long term system risks associated with increased inequalities, which affect productivity, social stability, and overall economic resilience.

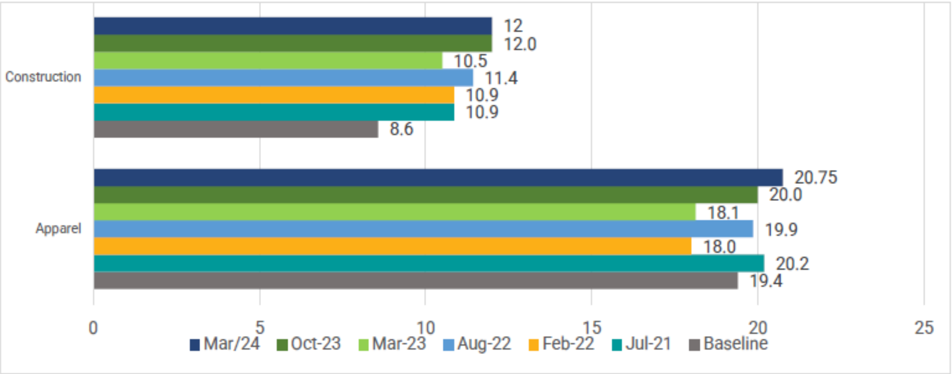
The goals of the engagements focused on six key areas of performance, comprising: governance and disclosure; responsible purchasing practices; living wages; stakeholder collaboration; worker empowerment; and rigorous auditing and grievance mechanisms.

Sixteen companies participated in the program over three years: 123 meetings were held, comprising 80 substantial exchanges, 22 introductory calls and 21 other interactions (such as attendance at a roundtable or a company stakeholder forum).

Progress made over the course of the three-year program can be seen in the following graph.
In summary,

- All companies need to do more to ensure greater resiliency in managing exposure to modern slavery risks and many are working on plans to drive progress in multiple areas.
- The engagement goals were demanding and consequently scores have improved mostly marginally in each biannual period. We therefore closed the engagements with a neutral outcome in the database.
- Some intangible outcomes of the engagement cannot be measured.
- In 2023, Sustainalytics made recommendations to all companies which reflected areas where it considered more focus should be placed and gaps addressed. Following these, many companies explained plans to achieve greater progress. It is therefore anticipated that due diligence efforts of several companies will be strengthened.

Overall score per company (maximum possible score is 54)



NB: Average scores are based on the total number of companies in the engagement over each period. This has changed since the baseline and therefore direct comparisons are not always possible. In March 2024, October 2023 and March 2023, there were 16 companies. In August and February 2022, the number was 14 companies. In the baseline and July 2021reports, there were 12 companies.

1. Average scores are based on the total number of companies in the engagement over each period. This has changed since the engagement started and therefore direct comparisons are not always possible. In March 2024, October 2023 and March 2023, there were 16 companies. In August and February 2022, there were 14 companies. In start of engagement and in July 2021, there were 12 companies.

Stewardship in practice

Closing of the Sustainalytics led Taxation 2.0 thematic engagement

We look at responsible taxation as a sustainable investment topic. Responsible taxation addresses the risks linked to aggressive taxation techniques, which are used to minimize tax contributions. Although not always illegal, these practices have come under increased government and public scrutiny, therefore representing legal and reputational risks for companies. The argument can also be made that the associated loss of revenues to governments can affect funding for critical areas essential to support the transition to a sustainable society.

The three-year thematic engagement on responsible taxation led by Sustainalytics ended in Q1 2024. Its main objective was to raise awareness at the board level of the importance of responsible taxation for investors and to promote increased transparency. The main asks to companies were to publish detailed and specific global tax policies, put in place board oversight on the topic, and adopt voluntary country-by-country tax disclosures.

Unfortunately, after three years of engagement, most companies have been reluctant to make progress and there is a lack of willingness to adopt higher standards unless required by legislation. The legal context is evolving fast however, with legal frameworks on tax transparency and country-by-country reporting being adopted in different jurisdictions. Companies will soon have to step up in response to these developments. A few highlights of the program:

- The original pool of companies comprised 21 global entities, mainly in the technology and pharmaceutical sectors. Because of the low response rate, many engagements had to be archived. At the end of the program, twelve companies remained.
- Over the course of the program, many emails were exchanged, several calls were held, investor letters were sent to unresponsive companies and a panel discussion was organized by Sustainalytics in December 2022, where seven companies attended.
- Overall, most companies have been reluctant to engage and make progress. We closed all engagements apart from two, as unsuccessful. The other two were closed with a neutral outcome as progress on policy and disclosure were made.
- Global developments and investor initiatives have been encouraging:
    - The OECD Framework on Base Erosion Profit Shifting (BEPS) is an agreement on a two-pillar approach to help address tax avoidance, ensure coherence of international tax rules, and, ultimately, a more transparent tax environment. At the end of 2023, around 40 countries were taking measures to implement Pillar Two, which helps with the design of a system to ensure that multinationals pay a minimum level of tax on profits.
    - Shareholders have filed shareholder resolutions on the topic of tax transparency, which received non negligeable levels of support (21% at Amazon, 27% at Cisco and Brookfield, 23% at Microsoft). The support for such resolutions is growing year on year, which shows that shareholders care about the topic, which should push companies to improve their practices.

Despite closing this theme, Taxation will remain a theme that we continue to engage companies on. We are taking part in the new Sustainalytics led Sustainability and Good Governance engagement theme, where responsible taxation will be addressed.

Investment Universe

New inclusions and exclusions

All investments are examined for environmental, social, and governance (ESG) issues. The assessment criteria for these topics are laid down in the investment policy based on principles related to human rights, fundamental labour rights, corruption, environmental pollution, weapons, animal welfare, and integrity, among others. These principles derive from international treaties, agreements, and best practices. It also assesses whether companies have the capacity to adapt to ongoing transitions toward a more sustainable society. Companies that lack this capacity create financial risks for the investment portfolio and can be excluded from investments.

Countries

No new countries were excluded or included.

Companies

The following companies were excluded this quarter by the Sustainability Categorisation Committee based on periodic screening:

- **Academy Sports and Outdoors, Inc.:** Sporting goods and outdoor recreation retailer. The company retails ammunition, semi-automatic rifles and shotguns, and other civilian firearms such as pistols and revolvers.
- **Accel Entertainment, Inc.:** Distributed gaming operator. All of the company revenue is derived from the installation, maintenance, and operation of video gaming terminals.
- **Allete, Inc.:** Energy company that provides electric services, and considerable revenues are derived from coal.
- **AVIC Xian Aircraft Industry Group Co Ltd:** Producer and retailer of aircraft products. The company derives an unknown percentage of revenues from the development and manufacturing of fighter aircraft. Bombers are among its main products.
- **Avicopter Plc:** Developer, manufacturer and distributor of aerospace products. The company derives 20% of its revenues from the development and manufacturing of military helicopters.
- **Beml Limited:** The company operates in the defence and aerospace sector, involved in nuclear weapons manufacturing.
- **Best World International Ltd:** Distributor of nutritional supplement products, personal care products and healthcare equipment. It lacks disclosures on chemical safety, raw material traceability, packaging, and carbon footprint.
- **Better Collective A/S:** All of the company revenue is derived from its involvement in the sports betting industry by providing education, content, and strategy insights for more informed betting decisions.
- **Bharat Dynamics Ltd:** Manufacturer of missiles and allied defence equipment. Involved in producing nuclear and cluster munition weapons.
- **Borr Drilling Limited:** Offshore shallow-water drilling contractor providing services to the oil and gas industry. Poor disclosure of its key sustainability risks, including carbon emissions, biodiversity & land use, and health & safety.
- **Cettire Ltd:** Global luxury online retailer. The company lacks policies on key sustainability risks, including privacy & data security, labour management, and product carbon footprint.
- **Clarus Corporation**: Designer, developer, manufacturer, and distributor of outdoor equipment and lifestyle products. The company derives 14.99% of its revenue from the production and sale of bullets for handguns and rifles.
- **Crescent Energy Company:** Energy company. The company derives 98.3% of its revenues from unconventional oil and gas exploration and production and does not have adequate policies to manage material sustainability risks.
- **Dorian LPG Ltd.:** Liquefied petroleum gas shipping company. Insufficient policies on climate transition. No carbon emissions reduction targets.
- **FirstCash Holdings, Inc.:** Operator of pawn stores. Retails used firearms.
- **Fujicco Co., Ltd:** Food manufacturer. The company conducts animal testing in producing its food supplements and does not have a public animal welfare policy.
- **Giant Biogene Holding Co Ltd:** Developer and manufacturer of professional skin treatment products. The company conducts animal testing for the development of its skincare products and medical devices.

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Investment Universe

New inclusions and exclusions

- **Granite Ridge Resources, Inc.:** Oil and gas exploration and production company, with a significant share of revenues from unconventional oil and gas. It does not disclose information on any of its key sustainability risks, including carbon emissions, biodiversity & land use, toxic emissions & waste, and community relations.
- **Hawaiian Electric Industries, Inc. and Hawaiian Electric Company, Inc.:** Provider of electric utility services. Violation of UN Global Compact, responding to lawsuits due to its negligence in handling the Hawaii wildfires.
- **Jacobs Solutions, Inc.:** The company manages the Nevada National Security Site which maintains facilities for nuclear weapon modernization and stockpiling.
- **Kimbell Royalty Partners, LP:** Oil and gas mineral and royalty company, with a large share of its revenues from unconventional oil and gas. The company lacks policies on key sustainability risks, including carbon emissions, biodiversity & land use, and community relations.
- **Lottomatica Group Spa:** Betting and lottery company. The company derives 99% of its revenue from the direct management of gaming centers and online sports betting and casino channels.
- **NeoGames S.A.:** Software company. All of the company revenue is derived from technology solutions in the lottery industry.
- **Northern Drilling:** Drilling oil and gas wells company. No disclosure on ESG is available. Also, no reporting to CDP.
- **Pollard Banknote Limited**: Provider of products and solutions to lottery and charitable gaming industries. All of the company revenue is derived from its involvement in the manufacturing, development, and sale of lottery products.
- **PT Astra Agro Lestari Tbk:** Engaged in agriculture and livestocks, trade, processing industry, transportation and services. Operates primarily in the palm oil business but lacks associated sustainability policies and certifications. It is also involved in severe controversies on land use rights and deforestation.
- **RCI Hospitality Holdings Inc.:** Hospitality company. The company derives 35.53% of its revenue from its involvement in adult entertainment production.
- **Reysas Tasimacilik Ve Lojistik Ticaret Anonim Sirketi:** A logistics company with a significant amount of turnover coming from the distribution of tobacco products.
- **Riley Exploration Permian, Inc.:** Oil and natural gas company with a weak biodiversity and climate strategy and lacking policies on material sustainability issues.
- **Silverbow Resources, Inc.:** Energy company with all of its revenue derived from unconventional oil and gas. No emissions disclosure and reduction targets. Limited policies on biodiversity & land use, and community relations.
- **Spartan Delta Corp.:** Energy company engaged in exploration of crude oil and natural gas. Poor performance on GHG emissions reductions, land use, and community relations.
- **Transdigm Group Inc. and Transdigm Inc.:** Producer of engineered aircraft components, involved in controversial weapons.
- **Transocean Inc. and Transocean Ltd: P**rovider of offshore contract drilling services for oil and gas wells. Limited initiatives to mitigate risks related to carbon emissions and potential adverse impacts on biodiversity.
- **Tsuburaya Fields Holdings Inc.:** Developer and distributor of gaming machines. The company derives 86.07% of its revenues from the development and distribution of gaming machines and related software.
- **Vitesse Energy Inc.:** Involved in the acquisition, development, and production of non-operated oil and natural gas properties. A significant share of the revenues of the company comes from unconventional oil and gas. It does not disclose a climate and biodiversity strategy and lacks policies on other key sustainability risks.
- **Yancoal Australia Ltd: C**oal producer in the seaborne market and derives approximately 82% of its revenue from coal mining. Also, it does not have GHG emissions targets.

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Investment Universe

New inclusions and exclusions

In addition to the aforementioned exclusions that apply to all of Cardano's funds, there are also companies excluded from Cardano's sustainable funds:

- Everbright Securities Company Limited
- Tofas Turk Otomobil Fabrikasi Anonim Sirketi
- Olympus Corporation
- Japan Post Holdings
- Cipla Limited
- Zhejiang Chaina Commodities
- Qantas Airways
- Chongqing Changan Automobile
- Faw Car Company Limited
- Ningbo Tuopu Group
- Shanghai International Port Group
- Shanghai International Airport
- Evolv Technologies Holdings
- Argosy Minterals Ltd
- Globeride, Inc
- Tenma Corp
- Alpha HPA
- The Straits Trading Company Limited
- Toyo Gosei
- Marine Products
- W-scope Corporation
- Alexander Marine
- Funko
- Soulbrain
- Perimeter Solutions
- Founder Securities
- China Traditional Chinese Medicine Holdings
- Ecoproco
- Naura Technology Group
- Accelink Technologies
- Himile Mechanical Science and Technology Shandong
- Gongniu Group
- Max Healthcare Institute Limited
- Nahdi Medical Company
- Buckeye Partners
- Gates Industrial Corporation
- Hidrovias do Brasil
- Norican
- Meritz Securities

The following companies have recently been added to the benchmark, but are being cautiously excluded from Cardano's sustainable funds. There is currently insufficient information available about these companies to make a thorough assessment of their sustainability strategy. Once this information becomes available, we will reassess the companies.

- Midea Group
- Ades Holding

The following company has been reincluded to the investment universe and classified as adapting:

- Camping World Holdings, Inc.: Retailer of recreational vehicles and related products and services. The company is no longer involved in the sale of weapons to consumers, reason of why it was previously excluded.

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