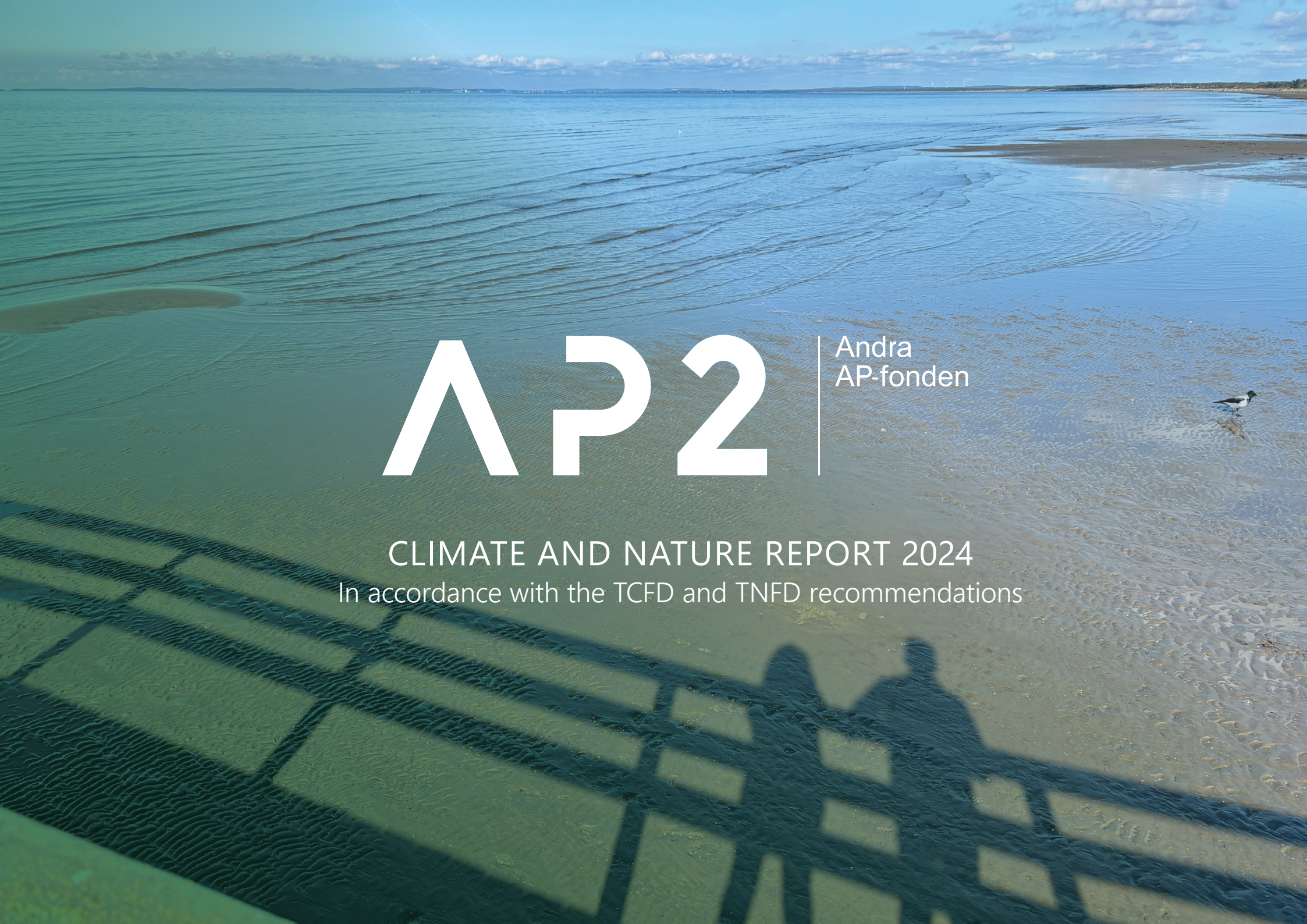


AP2

Andra
AP-fonden

CLIMATE AND NATURE REPORT 2024

In accordance with the TCFD and TNFD recommendations

Climate and Nature Report 2024

In accordance with the TCFD and TNFD recommendations

Climate and biodiversity are sustainability focus areas for Andra AP-fonden (AP2), and important in the Fund's work to ensure good a pension for current and future generations. Climate change and declining biodiversity are likely to have a significant impact on the living conditions of future generations and also on the Fund's returns and achievement of its objectives.

Symbols in the report

Information about climate

Information about nature

Climate change is ongoing and is caused by human impacts. The air around us, the sea, the polar ice caps and the Earth's living organisms are affected and are changing at a pace that is unprecedented in history. All inhabited areas across the globe will be affected by climate change, of which the effects include extreme weather conditions and changing precipitation patterns.

Nature, with its resources and ecosystem services, is essential for human existence and for all economic activities. Biodiversity – diversity within species and between species and ecosystems – is diminishing more rapidly than ever before in the history of humankind, with extensive and irrevocable consequences.

Climate and biodiversity are interrelated in many ways. There is also a strong link between these areas and human rights, since climate- and nature-related risks have consequences for indigenous people's rights, human health, essential supplies, access to food and water, human safety, economic growth and the entire global economy. In its sustainability strategy, AP2 therefore chooses to address all these issues from a holistic perspective.

About this report

AP2 views the Task Force on Climate-related Financial Disclosures (TCFD) and Taskforce on Nature-related Financial Disclosures (TNFD) as supporting frameworks in the work of identifying and managing climate- and nature-related risks and opportunities, while also encouraging companies to be transparent via annual and comparable reporting.

The work on climate- and nature-related issues, and on the preparation of this report, has the following starting points:

- **Double materiality** – AP2 applies the principle of double materiality to its sustainability work, including risk management and reporting. This is defined in the Fund's sustainability policy. This entails considering not only the risks of the Fund's investments being subject to climate and nature impacts, but also that the Fund's investments have an impact on the world at large.
- **Scope of reporting** – The report focuses on climate- and nature-related issues, based on AP2's investment portfolio. In some aspects, the Fund's work has been prioritised to the asset classes and risks that are deemed to be of the greatest materiality, and in these cases, reporting is also concentrated on these asset classes and risks, which is stated in the report.
- **Geographical presence** is an important parameter to be able to assess climate risks, in particular physical risks, and undertakings' impact and dependence on ecosystem services and biodiversity. For the fixed assets in the Fund's portfolio, such as real estate, timberland and farmland investments (NCS – Natural Climate Solutions), geographical presence can be mapped with close precision. When it comes to the listed portfolio, this is more challenging. For these assets, the Fund uses estimates from data providers, which are based on where the companies in the portfolio own assets. An important limitation of this method is that it does not capture the exposure that exists through the companies' supply chains.
- **Time perspective** – AP2 consistently applies the following definitions in the report:
  - Short term – up to 5 years
  - Medium term – 5-10 years
  - Long term – over 10 years

TCFD and TNFD framework

Governance

The organisation's management of climate- and nature-related dependencies, impacts, risks and opportunities.

AP2 is an independent government agency that must manage fund assets in an exemplary and responsible manner, for the greatest possible benefit to the pension system. Particular emphasis must be given to sustainable development, without compromising the overall return and risk objective.

A. The Board's oversight of climate- and nature-related impacts, dependencies, risks and opportunities.

AP2's Board receives ongoing information on the Fund's sustainability work, which includes climate- and nature-related issues. The Board has the opportunity to discuss this under a standing agenda item on sustainability issues at each ordinary Board meeting.

AP2 is governed by Swedish law. The Swedish Government appoints the Fund's Board members and submits an annual report to the Swedish Parliament on the Fund's activities, including an evaluation of its sustainability work.

Board of Directors

The Board must by law adopt the Fund's objectives and the overall framework for its activities in an annual business plan, which includes investment beliefs, strategic portfolio and sustainability policy.

The sustainability policy (see www.ap2.se) describes the Fund's approach to sustainability work and defines governance, goals, commitments, integration and transparency for each focus area.

The business plan is followed up by the Board and management and is reported in the annual report and sustainability report.

The Board of Directors is informed in writing about the Fund's sustainability work prior to each Board meeting and has the opportunity for in-depth consideration and discussion under a standing agenda item on sustainability issues at each ordinary Board meeting. In addition, if necessary, separate, in-depth reviews are held with the Board on the various focus areas.

B. Management's role in assessing and managing climate- and nature-related impacts, dependencies, risks and opportunities.

All management team members have a responsibility to take climate and nature issues into account, according to their various roles. Since AP2 is a small organisation, where several managers are directly engaged in the sustainability work, the management is very familiar with the work that is done. The Fund thus has good opportunities to assess and manage climate- and nature-related risks and opportunities.

Management

Responsibility for AP2's strategic sustainability work lies with the Fund's CEO and management team, which includes the Head of Communications and Sustainability. They are also responsible for implementation and follow-up on the sustainability policy. Climate and biodiversity are two of the Fund's four focus areas within sustainability and the work therefore focuses closely on these topics. All of the Fund's employees have a responsibility to take the sustainability perspective into consideration in their various roles and the Chief Investment Officer is responsible for integrating sustainability risks and opportunities in the management of assets. The sustainability department is responsible for coordinating the sustainability work, supporting the management organisation in the integration, and reporting to the management team and Board.

C. Policies, supervision and engagement for human rights in relation to indigenous peoples, local communities and nature.

AP2's work is based on the Fund's human rights policy. The Fund is committed to following the UN Guiding Principles on Business and Human Rights. This is supervised by the Board and management in the same way as the work for climate and nature. The rights of indigenous peoples are also considered in AP2's anti-deforestation policy, where the Fund's expectations of companies are defined.

Human rights

Like climate and biodiversity, human rights is a focus area for AP2's sustainability work, and there are strong links between these issues. AP2's work on human rights is based on the Fund's human rights policy (see www.ap2.se). AP2 undertakes to comply with the UN Guiding Principles on Business and Human Rights and works to implement these principles, with the aim of conducting its business in line with the UN Guiding Principles as from 2025 at the latest.

Work on human rights is supervised by the Board and management in the same way as work on climate and nature, as described above.

In addition to the human rights policy, which covers a wide range of human rights relevant to AP2's activities, the rights of indigenous peoples are addressed in AP2's Policy against deforestation and land conversion , in which the Fund's expectations of companies are defined. These expectations form the basis for the Fund's engagement on deforestation. Human rights that are associated particularly with deforestation, and that companies with activities related to deforestation risk should manage, include rights for indigenous peoples and local communities, including the right to land and to free, prior and informed consent. AP2 has zero tolerance of threats and violence against human rights and environmental champions.

Strategy

Integration of significant climate- and nature-related impacts, dependencies, risks and opportunities in the organisation's business model, strategy and management.

Sustainability is part of AP2's mission. The AP Funds are required by law to manage their fund assets in a way that provides the greatest possible benefit for the insurance of income-based old-age pensions. The total risk level should be low, measured in outgoing pensions. The mission of the Funds requires the fund assets to be managed in an exemplary manner through responsible investments and responsible ownership. Special emphasis must be given to how sustainable development can be promoted without compromising on the overall goal.

Exemplary means that the investments should have the best risk and return, given the needs of the pension system, and that sustainability should be an integral part of the asset management. This integration means, among other things, that one of the Fund's investment beliefs is sustainability-related – "Sustainability pays off".

The Fund believes that sustainable development is a prerequisite for a good pension, when taking a broader perspective than just financial security into consideration.

The Fund's overall strategy is based on the strategic roadmaps that are defined at regular intervals. The current plan focuses on developing a more effective, sustainable and resilient portfolio and on creating a more adaptable and effective business. A more effective, sustainable and resilient portfolio entails enhancing sustainability work and contributing actively to sustainable development.

AP2's sustainability strategy

AP2's sustainability work adheres to a method that consists of six parts. These form the basis for the action plans describing the work that the Fund undertakes within each focus area. The method answers the question of "how" this work is conducted through responsible investments and responsible ownership. Based on the method's six parts, the Fund has defined action plans for climate and biodiversity which describe how the focus areas will be integrated within the Fund's various asset classes.

AP2's definition of sustainability

AP2's sustainability work is based on the Fund's mission and involves acting over the long term to protect and create value – based on an economic, environmental and social perspective.

AP2's method of working with sustainability

1. **Integration**
   Sustainability is integrated throughout the organisation, in asset management and in the Fund's day-to-day operations.
2. **Materiality**
   AP2 focuses its work on the most important issues and areas where the Fund can make the biggest difference.
3. **Analysis**
   Sustainability work is built on thorough, fact-based analysis, both prior to an investment and in the Fund's role as owner.
4. **Engagement**
   AP2 encourages companies to live up to the Fund's expectations in relation to sustainability issues.
5. **Collaboration**
   The Fund can achieve more through collaboration, both within AP2 and with other investors.
6. **Transparency**
   AP2 practices what it preaches and builds trust through transparency.

A. Climate- and nature-related impacts, dependencies, risks and opportunities identified by AP2 in the short, medium and long term.

In the short term, AP2's investments are assessed to have a low climate risk and there are many opportunities for investments within the transition. In the medium and long term, however, climate risks are expected to increase and may have a major impact on long-term returns.

AP2 has mapped the portfolio's impacts, dependencies, risks and opportunities using the ENCORE database and with a focus on sectors with a high risk according to TNFD. The Fund's analysis shows that land use as a driver of biodiversity loss, as well as the food and beverage, and forest and paper sectors, should be prioritised by AP2.

Identified impacts, dependencies, risks and opportunities

Climate change entails both risks and opportunities for the Fund's long-term returns. The Fund's climate-related risks are divided into transition risks and physical risks. Both of these types of risks may in the future lead to financial risks for the Fund and its investments.

Transition risks arise from the transition to a carbon-neutral society and comprise regulatory, technological and market risks, as well as brand risks. Among other things, this may entail that the financial value of assets can diminish, but also that investment opportunities arise in areas such as sustainable infrastructure and green bonds.

Physical risks are subdivided into acute risks and systemic risks. These may affect several of the Fund's assets, including real estate and timberland and farmland investments, as well as portfolio companies located in risk zones where activities may be affected by, for example, floods, fires and sustained temperature increases.

In the short term, the Fund's investments are assessed to have a low climate risk and to have good opportunities for investment to contribute to the transition. In the medium and long term, however, climate risks are expected to increase and may have a major impact on long-term returns.

AP2 has analysed and evaluated the investment portfolio's prioritised nature-related dependencies, impacts, risks and opportunities using the ENCORE database developed by the Natural Capital Finance Alliance and the UN's environmental programme, UNEP[1]. The analysis is updated annually.

Impacts and dependencies

The analysis is founded on the principle of double materiality and is conducted from a sector perspective. The assessment was performed according to the following parameters:

- The principal drivers of biodiversity loss, according to IPBES (Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services)[2].
- Sectors that have the greatest impact on these drivers of biodiversity loss.
- Sectors most dependent on nature resources and ecosystems.
- Sectors with the greatest exposure to the assets in AP2's portfolio.

The analysis is based on the sectors identified as highly relevant in TNFD's framework and AP2's exposure to these sectors through its investments. The ENCORE database analyses the negative impact, from different drivers, of each sector on biodiversity The analysis is restricted to the sectors relevant to AP2 – sectors not part of the Fund's portfolio are not included. The sectors are evaluated on the basis of the entire value chain, which means, for example, that a restaurant or grocery store is deemed to be linked to the risks involved in the cultivation of the products sold.

Impacts are analysed according to the five drivers of biodiversity loss identified in the IPBES report, and how they affect land, fresh water, sea and atmosphere. According to the IPBES report, the five main drivers of biodiversity loss are:

- Changing use of sea and land
- Direct exploitation
- Climate change
- Invasive non-native species
- Pollution

AP2 has addressed the climate since many years, addressing the sectors and companies that have the greatest impacts related to this driver. For this reason, the impact of sectors on climate change is not included in this analysis. Of the four remaining drivers, the analysis shows land use, followed by pollution, to be the most relevant for the Fund's investments.

Sectors in AP2's portfolio with a high negative impact on and high dependence on nature resources and ecosystems are highlighted in the overview on the next page, which is structured according to the Fund's exposure to each sector.

1 https://www.encorenature.org/en

2 IPBES (2019): Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. E. S. Brondizio, J. Settele, S. Díaz and H. T. Ngo (editors). IPBES Secretariat, Bonn, Germany. 1,148 pages. https://doi.org/10.5281/zenodo.3831673

Land use – sectors in focus

Based on the analysis, in the first instance the Fund prioritises two sectors in the work of integrating nature aspects into investment strategies and advocacy work:

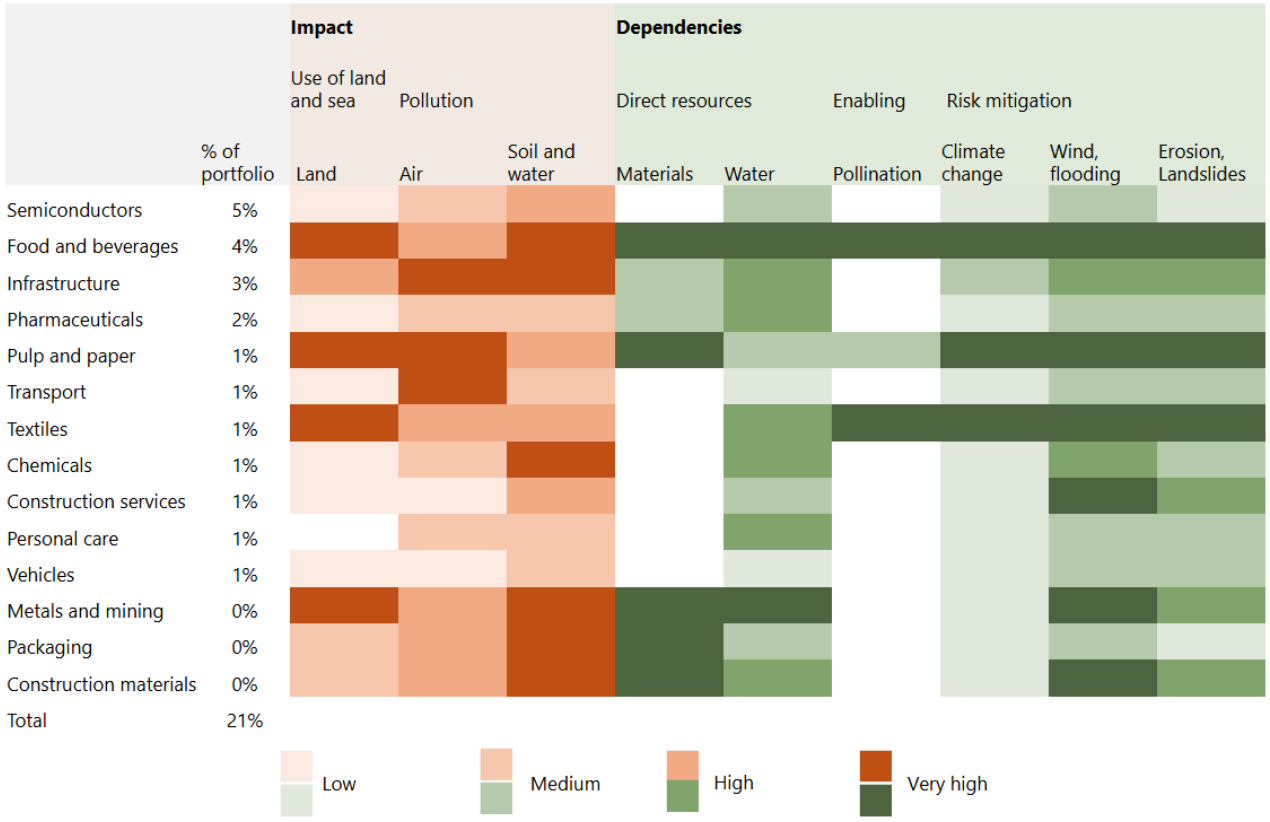
- Food and beverage sector, including the entire value chain from agriculture to producers, trade and restaurants.
- Forestry and paper

The food and forestry sectors are particularly relevant, in view of AP2's focus on land use. According to IPBES, the food sector stands out in terms of negative impacts from land use, primarily through deforestation in tropical areas with rich and sensitive biodiversity. Furthermore, 75 per cent of tropical deforestation is caused by four raw materials – cattle, soya, palm oil and raw timber. According to IPBES, agriculture alone is identified as the primary threat to 24,000 of the 28,000 species at risk of extinction. The global food system is also an important driver of climate change and accounts for around one third of the total human-generated greenhouse gas emissions. The food and forestry sectors are also highly dependent on ecosystem services such as water, climate and pollination. If these are weakened, the industry will be negatively affected.

According to IPBES, around 85 per cent of the Earth's arable land is threatened by erosion, deterioration of soil quality and pollution, and more than 75 per cent of the world's harvests depend on pollination.

After the work has been established in these two sectors, the Fund plans to continue the work with the infrastructure sector. Infrastructure, including the energy sector and its sub-sectors, has been identified as being at high risk from both an impact and dependency perspective. Given the Fund's focus on investments in sustainable infrastructure, it is important to consider the nature perspective when evaluating these investments and projects.

AP2'S HOLDINGS IN SECTORS WITH A HIGH IMPACT AND DEPENDENCE ON NATURE RESOURCES AND ECOSYSTEMS



Pollution as a cause of biodiversity loss

Pollution is the second most relevant driver of biodiversity loss for AP2, according to our analysis. According to the IPBES[3] report, pollution is a significant driver of biodiversity loss. Pollution from agriculture, industry and urbanisation contributes, among other things, to deteriorating water quality, soil acidification and air pollution, which damage nature and ecosystems. In addition to the sectors mentioned above, the chemicals sector is relevant for the Fund in terms of the risk of negative impacts from pollution.

Risks and opportunities

In total, 21 per cent of AP2's assets are invested in sectors identified by TNFD as having high nature-related impacts and dependencies, through the asset classes comprising listed equities and credits, private equity funds, farmland and timberland investments and the Fund's investments in sustainable infrastructure. The three prioritised sectors comprising food and beverages, forestry and paper, and infrastructure account for 8 per cent of the Fund's investments, which have both a very high impact and dependence on nature. There is a risk of negative impacts on these investments in the event of a lack of resources and weakened ecosystem services, particularly in the medium and long term.

The Fund sees opportunities to invest in activities that reduce the negative impact on nature and promote biodiversity. This takes place through the Fund's targeted sustainability investments, including sustainable infrastructure, timberland and farmland, that fulfil the Fund's sustainability criteria, and through investments via private equity funds, including animal-free alternatives to meat and leather, and sustainable agricultural technology.

The nature-related impacts and the dependencies and opportunities identified in the above analysis are relevant in all time perspectives. The risks are primarily expected to materialise in the medium to long term.

[3] IPBES (2019): Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science- Policy Platform on Biodiversity and Ecosystem Services. E. S. Brondizio, J. Settele, S. Díaz and H. T. Ngo (editors). IPBES Secretariat, Bonn, Germany. 1,148 pages. https://doi.org/10.5281/zenodo.3831673

B. Effects of climate- and nature-related risks and opportunities on AP2's investment strategies.

Climate change is included in the ALM analysis, the Fund's tool for developing the most relevant strategic portfolio. In practice, integration into management involves three paths towards sustainable investments for climate and nature:

1. Invest in solutions through targeted sustainability investments.
2. Support change through long-term thinking and engagement as active owners.
3. Divest from adverse exposure through selective divestment from assets with persistent high risk.

Effects on AP2's investment strategies

One of AP2's investment beliefs is that sustainability pays off, and this belief is integrated into the Fund's management in several ways. Climate change impacts the ALM (Asset and Liability Management) analysis, the Fund's tool for developing the most relevant strategic portfolio. Choosing the strategic portfolio consists of determining which asset classes are to be included and how much is to be invested in each asset class, and also which indices or strategies are to represent each asset class. The distribution between asset classes is based on a scenario where sufficient measures are not taken and the global temperature increase is 3°C, instead of 1.5°C, the goal of the Paris Agreement.

The assessment includes long-term assumptions about how climate change and changes in nature will affect the development in the economic and demographic situation. If the climate situation deteriorates, this would be assessed to have negative consequences for global economic growth, which is taken into account in the Fund's strategy.

In practice, integration into asset management involves three paths towards sustainable investments, as explained below.

Investing in solutions

Creating a fossil-free and nature-positive society requires major investments, and AP2 supports the transition through targeted sustainability investments in different asset classes. One example is the Fund's investments in sustainable infrastructure, which are based on the required rapid transition of energy and transport systems from fossil-based to renewable sources. Another example is the Fund's strategic allocation to green and blue bonds. Some of the private equity funds in which the Fund invests are focused on investments with a positive impact on climate and nature, with portfolio companies active in such areas as renewable energy, animal-free alternatives to meat and leather, and sustainable agricultural technology. AP2 also invests in forestry and agricultural properties that fulfil the Fund's sustainability criteria for these assets.

Supporting change

AP2 supports the transition as active owners by continuously analysing and evaluating its investments and how they live up to the Fund's expectations of portfolio companies and external managers, for each of the focus areas. The Fund's climate plan, biodiversity plan and human rights plan are published on AP2's website. These plans give a detailed description of the Fund's expectations within each focus area. AP2 expects, among other things, that portfolio companies adapt their activities in line with the Paris Agreement, and ensure that activities are deforestation-free and that companies comply with the UN's Guiding Principles on Business and Human Rights. External managers are also expected to work to meet these expectations. If there is a risk that an investee does not meet AP2's expectations, the Fund conducts active engagement work, including company dialogues, voting and collaboration with other investors.

AP2 works with impact at both policy level and through stewardship with companies. Stewardship takes place in many ways, for example through

THREE PATHS TO SUSTAINABLE INVESTMENTS

INVESTING IN SOLUTIONS	TARGETED SUSTAINABILITY INVESTMENTS
SUPPORTING CHANGE	LONG-TERM APPROACH AND ENGAGEMENT AS ACTIVE OWNERS
DIVESTING FROM ADVERSE EXPOSURE	SELECTIVE DIVESTMENT FROM ASSETS WITH PERSISTENT HIGH RISK

dialogues with companies, voting and proposals at general meetings and work in nomination committees. AP2's ambition is to conduct engagement with companies that are identified as having a high risk and inadequate management of risks within the Fund's focus areas. Engagement is conducted in collaboration with other investors if possible, but otherwise under our own auspices. This is described in more detail on pages 17-19.

Divesting from adverse exposure
AP2 may choose to divest if a company is deemed to present a high climate or nature risk and does not have the ambition or ability to transform its activities. These may be stranded assets that are expected to lose value in a decarbonised world, and companies that, despite attempts at dialogue, do not manage climate and nature risks adequately.

The Fund has implemented an index in line with the EU's Paris Aligned Benchmark (PAB), which today forms the basis for the management of global equities and corporate bonds (equivalent to approximately 41 per cent of the Fund's assets under management). PAB prescribes divestments from the fossil industry and from energy companies with more than 1 per cent of revenues from coal, 10 per cent from oil and 50 per cent from gas. The implementation in 2020 involved extensive divestments and resulted in a halving of emissions in the affected portfolios. Subsequently, the index criteria stipulate that the portfolio's total emissions over time must continue to decrease by an average of 7 per cent per annum.

The indices for the foreign government bonds asset class were also adjusted, to enable the Fund to invest in countries with lower emissions and credible climate measures, as an element of reducing the Fund's exposure to transition risks.

Sustainable infrastructure in emerging countries

During the year, AP2 invested in CIP Growth Market Fund II. The strategy for this fund is to build up a diversified portfolio, in both geographical and sectoral terms, of large-scale sustainable infrastructure, solar parks and onshore and offshore wind power, as well as battery storage, with long-term contracts in selected emerging countries. Countries in Asia, Latin America and Eastern Europe are expected to show high growth in energy demand for decades to come, driven by rapidly increasing economic and demographic growth, greater electrification and accelerating carbon emissions due to reliance on coal and/or fossil fuels.

Amazon Reforestation-Linked Bonds

In 2024, AP2 invested in Amazon Reforestation-Linked Bonds, a new type of outcome bond from the World Bank. Investment in this bond is expected to contribute good returns at low risk and furthermore to support reforestation, biodiversity promotion and carbon sequestration. The bond extends over nine years, which matches AP2's long-term perspective. It finances a project where a domestic player, Mombak, either buys agricultural land or collaborates with landowners to replant trees. The project covers a large number of species of both fast-growing trees and slow-growing native species, to promote biodiversity. These trees generate carbon credits that are then sold to third parties, where Microsoft is committed to buying a large proportion. The proceeds from the sale are then used to increase the return to investors.

C. Resilience in AP2's strategies for risks and opportunities in various climate and nature scenarios.

AP2 has conducted an overall scenario analysis in which physical and transition risks are estimated on the basis of two scenarios: a scenario with an orderly transition and global warming of 1.5°C, and a "hothouse" scenario with global warming of 3°C. AP2's estimated transition risks are significantly lower than for a comparable global equity index (MSCI ACWI), as the Fund has worked to develop a portfolio in line with the Paris Agreement. According to the analysis, the greatest physical risks for the Fund's listed equities and credits are extreme heat and low flows in watercourses, rivers and dams. The Fund will continue to follow up and manage these risks.

An initial scenario analysis has been performed in line with TNFD's recommendations. A combination of severe degradation of ecosystems and weak coordination between different actors is deemed more likely than the more optimistic scenario, with limited degradation and strong coordination. This would entail a high risk in terms of both physical and restructuring risks, which are currently difficult to assess and quantify. AP2 continues to analyse its holdings in order to better understand and manage these risks.

Scenario analysis

In the scenario analysis, AP2 uses data from MSCI and the Climate Value at Risk (CVaR) metric, which analyses the portfolio's transition risk and physical risk, based on forward-looking data. The model is based on scenarios from the NGFS (Network for Greening the Financial System) framework, where the effects of different combinations of climate change and climate policy are explored.

According to NGFS, there are six different scenarios and three different dimensions. The "orderly" dimension assumes that climate policy is introduced early and becomes stricter. Both restructuring and physical risks are relatively mitigated. The "disorderly" dimension examines higher transition risk due to policies being delayed and may also differ between countries. The third, "hothouse", dimension is based on how global efforts to address climate change are insufficient to stop global warming.

MSCI's model uses a database of climate analyses for companies based on NGFS' scenarios, with policy-related transition risks and physical risks in the event of global warming of 1.5°C, 2°C and 3°C. The calculations of the physical risks are based on many extreme weather events, such as extreme heat, cold, wind, precipitation, snowfall and tropical cyclones, and are based on a database in which companies' assets are mapped and valued.

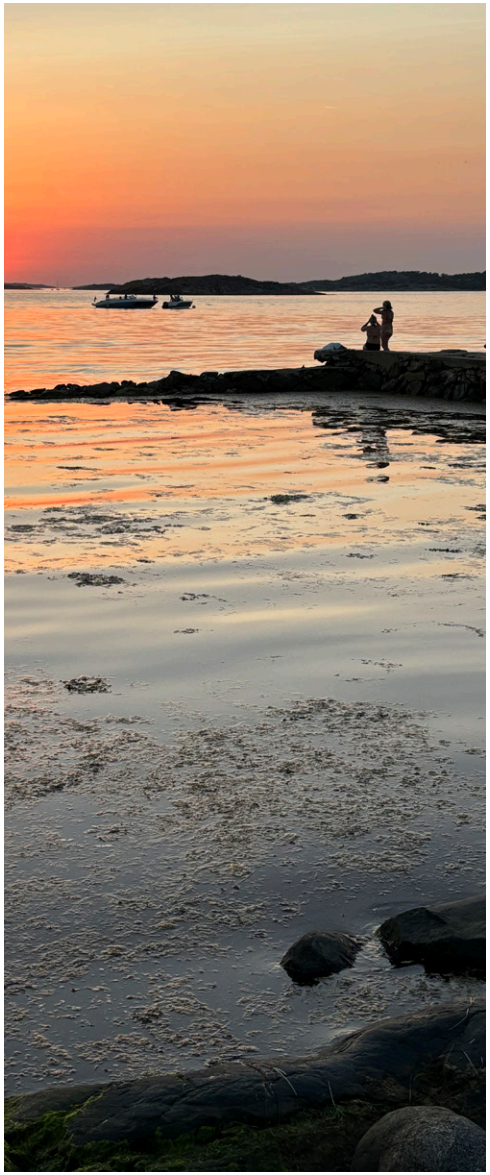
Based on this model, the Fund has carried out two different scenario analyses for the listed equity and credit portfolio: a scenario with an orderly transition and global warming of 1.5°C, and a "hothouse" scenario with global warming of 3°C.

The scenario based on the orderly dimension and 1.5°C warming mainly provides the Fund with insights into the risks that exist in the short and medium term.

According to the analysis, AP2 has lower transition risks in the portfolio than the MSCI ACWI benchmark index, which is an expected outcome as the Fund has worked for a long time to reduce these risks, among other things by divesting holdings in the fossil fuel industry.

The physical risks are usually subdivided into acute and chronic risks:

- Acute risks constitute severe and extreme events and are site-specific. Examples of this are droughts, storms and forest fires.
- Chronic risks represent the gradual climate change risks such as temperature, precipitation, rising sea levels and biodiversity loss over several decades.



Comparison of the physical risks with the benchmark index, MSCI ACWI, shows that the Fund is also at lower levels here. The main physical risks in the equities and credit portfolio that are indicated by the analysis are chronic risks such as extreme heat and low water flow. Changes compared to last year are largely due to changes in portfolio holdings.

The scenario based on the hothouse dimension, i.e. that sufficient measures have not been taken, mainly gives an idea of risks in the longer term.

In this scenario, too, the Fund has a lower risk than MSCI ACWI in terms of both transition risks and physical risks. In general, however, the transition risk is lower for this scenario, as it is characterised by weak regulatory measures from the political arena. Also in this scenario, the greatest risks turn out to be chronic risks such as extreme heat, high sea levels and low water flows in watercourses, rivers and dams.

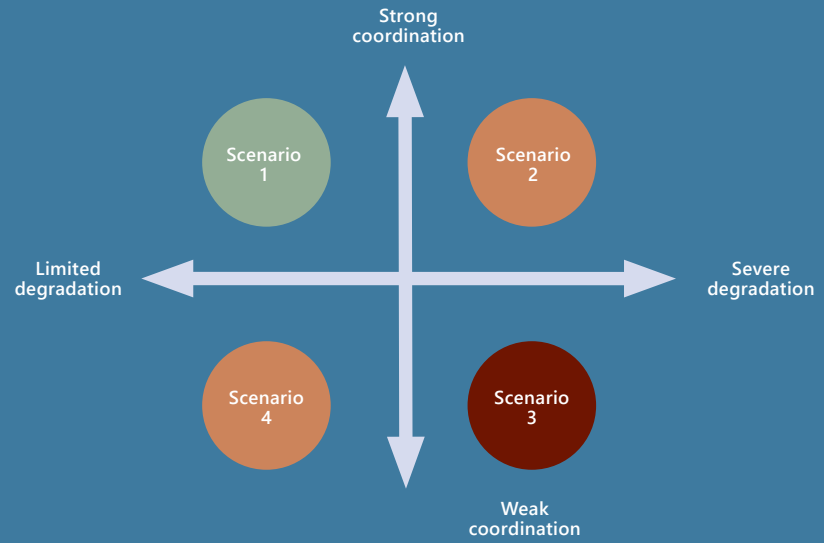
CONCLUSIONS AND CONSEQUENCES

Scenario	Transition risks	Physical risks	Consequences
Orderly dimension (1.5°C heating)	AP2 has lower transition risks than the MSCI ACWI benchmark index, which is a result of the Fund's long-term efforts to reduce these risks.	AP2 has lower physical risks than MSCI ACWI, with the greatest risks being related to extreme heat and low water flows.	AP2 should continue its work to reduce and manage transition risks. One way to do this is by engaging in dialogue with decision-makers and governments to influence legislation and regulations. The aim is for these measures to contribute to reducing greenhouse gas emissions, promoting sustainability and protecting the environment. The Fund needs to take account of thephysical risks, particularly in higher global warming scenarios. Continued focus on identifying and managing both acute and chronic physical risks and continued advocacy work towards the companies, to ensure that they proactively plan for the risks. Continued integration of long-term climate goals and scenarios in investment decisions can help AP2 better prepare for future climate-related challenges and invest in the companies that are best equipped for climate change.
Hothouse dimension (3°C heating)	AP2 has lower transition risks than MSCI ACWI, but the risks are generally lower due to weak regulatory measures, i.e. that political and regulatory measures to manage climate change are inadequate or ineffective.	AP2 has lower physical risks than MSCI ACWI. The greatest risks are chronic, such as extreme heat, high sea levels and low water flows in watercourses, rivers and dams.	

AP2 has analysed nature-related risks and opportunities according to TNFD's proposed structure, based on two critical sources of uncertainty:

- Ecosystem degradation – the extent to which biodiversity and critical ecosystems are weakened, on a scale ranging from limited impacts on nature and ecosystem services to a serious impact on, for example, pollination and access to water.
- The degree of coordination between governments, authorities, companies and individuals, which in turn leads to different degrees of transition risk. Good coordination creates predictability and contributes to rational decisions, while a lack of coordination risks driving transition risks, leading to short-term and suboptimal decisions and high expenses.

SIMPLIFIED ILLUSTRATION BASED ON TNFD'S SCENARIOS FOR NATURE-RELATED RISKS



CONCLUSIONS AND CONSEQUENCES FOR AP2

- The probability of a negative outcome is deemed to be high in both dimensions, both for severe degradation and for weak coordination, which means that Scenario 3 is deemed to be more likely than Scenario 1. This would entail significant risks, both physical and transition risks, which are currently difficult to assess and quantify.
- The analysis has major limitations, is conducted on an overall and simplified level, and is seen as an initial approach. AP2 will continue its work of analysing its holdings and understanding the Fund's risks and opportunities according to different scenarios. The framework's dimensions will continue to be applied as a starting point for this analysis. The Fund will continue to monitor research in this area in order to increase understanding of both the probabilities, and the consequences, of each scenario.
- To better assess and manage risks and opportunities for AP2, the Fund will conduct in-depth analyses of its geographical exposure through its holdings, both to sensitive areas and to areas with high physical risk. In the long term, the ambition is to be able to include the portfolio companies' value chains in this analysis, which is currently challenged by a lack of access to data.
- An important component of the work going forward is to base analyses on scientific facts and to participate in interdisciplinary collaboration. Among other things, the Fund participates in Mistra BIOPATH, a research collaboration that aims to develop methods for integrating biodiversity in financial decision-making (see www.mistrabiopath.se).
- The ambition is to include the risks and opportunities identified in the above analysis in the Fund's integration of sustainability into investments, which may involve, for example, engagement work towards companies identified as high-risk, or the identification of investment opportunities for targeted sustainability investments.

D. Geographical location of activities and of assets and activities in AP2's portfolio.

AP2's own activities are based in Gothenburg and employ around 70 people. Via its global investment portfolio, the Fund has significant geographical exposure. The work of mapping this exposure is ongoing, but is challenging in terms of access to and the quality of data concerning the companies' supply chains.

Through its investments in agricultural real estate, the Fund has assets in two sensitive geographical areas, according to the TNFD framework. These are located in Brazil and California and represent approximately 1 per cent of the Fund's total assets.

In the listed equity portfolio, the Fund's analysis shows that 3 per cent of the companies in the Fund's listed equities portfolio, corresponding to 1.2 per cent of the Fund's total assets, are active in geographically sensitive areas and in sectors with a high deforestation risk.

Risk management

Identification, management and control of impacts, dependencies, risks and opportunities.

A. Process to identify and assess climate- and nature-related impacts, dependencies, risks and opportunities in the portfolio*.

The Fund has established processes to identify, assess and manage climate- and nature-related risks within its respective asset classes and regularly analyses risks and opportunities associated with climate and biodiversity. Data on greenhouse gas emissions, but also estimates of companies' and countries' alignment towards net zero emissions, are used to assess climate risks. Within biodiversity, the portfolio's deforestation risk and companies' management of this, as well as their commitment to a deforestation-free supply chain, are analysed. For actual assets, risks are analysed based on sector and geographical presence.

* Reporting according to indicator A(ii), according to TNFD, with a focus on AP2's portfolio and not its own activities.

Identification

There are processes for identifying, assessing and prioritising climate risks and opportunities for the various asset classes in AP2's portfolio. These assessments and risk management are performed by the respective portfolio managers. Many of the processes are supported by the IIGCC (Institutional Investors Group on Climate Change) Net Zero Investment Framework.

Identification takes place on the basis of climate data from one or more different data providers, which the portfolio managers can use to assess climate risks for their respective portfolios. For most portfolios, this means that carbon data forms the basis for the assessment and the priorities set. Some asset classes, such as timberland investments, have a longer time horizon when assessed than, for example, listed equities. The physical climate risks and forward-looking data are also integrated into the assessment.

In 2024, the Fund continued to work on developing climate plans for various types of assets. In total, there is now a plan to reduce emissions in line with the Paris Agreement for 94 per cent of the portfolio, compared to 86 per cent in 2023. Read the Fund's climate plan.

In pursuing a deforestation-free portfolio, the Fund has analysed the portfolio of listed equities and credits to identify companies with a high deforestation risk, with special focus on the food value chain as the first step.

New model for analysis of deforestation risk

AP2 has worked with the Climate & Company think tank, which has developed a model for assessment of deforestation risk in investment portfolios. The new model resolves several problems encountered with previous ways of performing this analysis. The Fund is now able to analyse all listed companies in the equities and corporate credit portfolio, which is a significant improvement compared to previous methods that only had data for a fraction of the companies. The risk assessment in the model also weighs together several key data points that not previously have been captured. It shows, for example, whether companies in the portfolio have assets in geographical areas of a sensitive nature. By combining this information with the company's type of activity, AP2 can identify companies which can directly cause deforestation.

Another important aspect is that the model estimates companies' exposure to risks throughout the supply chain. This is particularly important to identify companies where the risk lies in previous links in the supply chain. The information in the model is retrieved from open data sources and databases, and the aim is to spread the use of the model and support the work of more actors to mitigate deforestation. The model is publicly available to download free of charge here.

At the end of 2024, the model had identified 45 companies in AP2's listed equities and credit portfolios with a very high risk of deforestation. These companies are prioritised for the Fund's engagement on the deforestation issue.

AP2 has also conducted a risk analysis of its private equity portfolio and identified which portfolio companies and managers are exposed to raw materials that entail a high deforestation risk. In total, these companies account for around 4 per cent of the value of the private equity portfolio. Assessment of the managers' handling of any possible deforestation risk will be included in the annual evaluation of their sustainability work. Questions regarding assessment and management of deforestation risk are also included in the Fund's due diligence process for new managers.

Management

Global listed equities and credits
In these asset classes, transition risks are managed via an internally developed Paris-Aligned Benchmark (PAB)-adapted index. Among other things, PAB requires the carbon footprint to be reduced at a rate that over time corresponds to 7 per cent per annum. The PAB framework is designed to reduce emissions in the asset class to net zero by 2050. In addition to the fact that mandates managed under the framework do not include certain companies, such as companies in the fossil fuel industry, companies that do not reduce their greenhouse gas emissions over time will have a reduced weighting in a PAB-aligned portfolio. Scope 1-3 emissions are taken into account.

The index is updated twice a year, and thereby the Fund's investments in these asset classes.

Swedish equities
For the Fund's Swedish equities, climate risks are primarily managed via categorisation of companies' alignment along a "maturity scale" defined by the IIGCC's Net Zero Framework. Using this framework, and its defined forward-looking alignment criteria, together with emission figures, the Fund can assess whether a company has a credible plan to adapt to net zero emissions and can categorise the company accordingly.

Using an established framework makes AP2's assessment comparable with other investors and thereby also an appropriate common starting point in its contact with the companies.

Corporate dialogues are an opportunity for AP2 to influence companies, but are also important for the Fund as an owner to understand and be able to manage climate-related risks and opportunities.

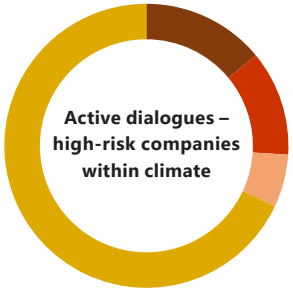
During the year, the Fund engaged in dialogues primarily via investor initiatives such as Climate Action 100+ and the Net Zero Engagement Initiative, but also company dialogues on an individual basis. In 2024, AP2 had climate dialogues with 16 companies. The climate dialogues primarily concerned net zero commitments, emission reductions and climate plans to achieve net zero.

In 2024, AP2 published clear expectations for companies as a basis for dialogues on climate alignment with both companies and external managers; see the Fund's website. Expectations of companies include a commitment to net zero,

B. Process for managing climate- and nature-related impacts, dependencies, risks and opportunities.

AP2's ambition is to engage with all companies that, in accordance with the Fund's processes, have been identified as having a high risk and inadequate management of risks within the Fund's focus areas. Engagement is conducted in collaboration with other investors if possible, but if necessary, under our own auspices. Active dialogues normally involve meetings with the companies at least twice a year and follow-up on defined key figures and the progress of the dialogue. If necessary, the dialogue can be escalated through, for example, voting or shareholder proposals. Divestment is a last resort if the Fund has exhausted its opportunities to exert influence without any result, or it is assessed that assets cannot transition.

emission reduction targets, reporting of emissions within Scopes 1-3, clear climate plans, capital allocation towards net zero, corporate governance and transparency, which includes reporting in accordance with the TCFD framework (Task Force on Climate-related Financial Disclosures).



Collaboration	7
AP2 leads collaboration	6
Own dialogue	3
No dialogue	34

Government bonds and green bonds

In line with IIGCC's Net Zero Investment Framework, the process for government bonds and green bonds is based on alignment criteria for governments. During the year, AP2 continued to develop the process for assessment and reporting of the asset class. Among other things, the Fund uses a public data source that was recently introduced: ASCOR (Assessing Sovereign Climate-related Opportunities and Risks), to provide more detailed data for the assessment of countries' climate alignment and for greenhouse gas reporting. The portfolio manager makes an assessment based on emission gaps, intention and capacity to implement the carbon policy, and capacity for economic transition, for the respective country. This assessment is supplemented with an evaluation of the current situation based on the countries' forward-looking transition pathways. The assessment includes a fairness aspect, which takes into account that in countries with less economic capacity, great efforts and international capital are required to implement the climate policy. Based on this assessment, the Fund prioritises investments and engagement work.

Natural climate solutions

AP2's investments in natural climate solutions (NCS) include forestry and agricultural properties that meet our sustainability criteria and where the managers work to preserve, restore and improve ecosystems and achieve climate benefits.

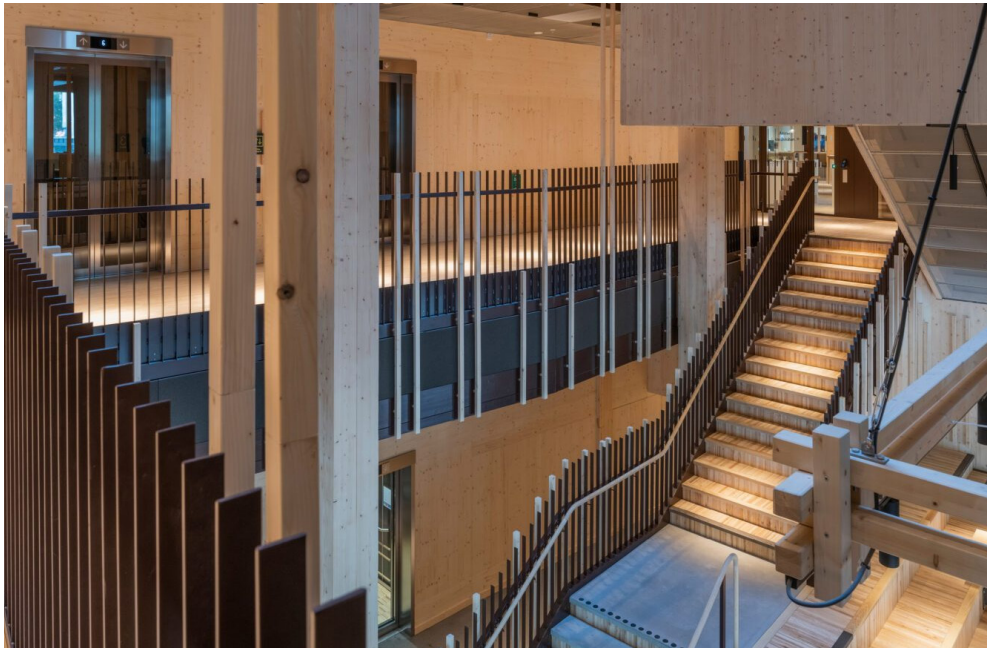
The investments contribute to the possibility of increasing the carbon sequestration in growing forests and products from the forest. The physical risks for timberland are expected to increase and to vary in scope according to where the timberland is located. The risks identified are the presence of pests and diseases, droughts, floods, extreme storms and forest fires. The Fund's three external managers (New Forest, Molpus and Nuveen) have processes in place to map these risks, and AP2 maintains a continuous dialogue with the managers.

The Fund's farmland properties are managed by an external manager, Nuveen, which works with innovative solutions to create a more resilient, efficient and environmentally adapted agricultural system, with a reduced carbon footprint. The manager intends to expand existing analyses with analysis of physical risks, which includes information about weather events, as fires and droughts are considered to be two of the greatest risks. The Fund engages in dialogue with the manager concerning climate risks and how these are assessed and managed. The net zero assessment by the managers, which was performed for the first time in 2024, based on the IIGCC's Net Zero Investment Framework, is also a good support and basis for the Fund's dialogues with the managers.

Traditional real estate

Together with the Fund's external managers, AP2 assesses that the transition risks and physical risks for investments in traditional real estate are low. The transition risks for real estate include requirements to reduce energy use and carbon emissions for property management activities, as well as in connection with any new construction. AP2's external managers: Vasakronan, Cityhold Office Partnership and US Office Holding have worked on reducing transition risks for many years. Some risks remain, however, in particular regulatory risks and market-related transition risks such as higher prices for emissions through increased taxes, increased costs of materials, or changes in customers' behaviour that can lead to increased costs.

The physical risks for the Fund's holdings depend on the geographical location of the real estate. Exposure to acute risks, such as floods, storms, droughts and fires, is greater for the Fund's global holdings than for Sweden. The



Vasakronan's property Magasin X in Uppsala, Sweden's largest office building with an all-timber carcass. Photography by: Gustav Kaiser.

global holdings in the portfolio are also exposed to chronic risks such as rising sealevels and rising temperatures. The Fund's Swedish holdings have some exposure to chronic risks such as rising sea levels and rising temperatures. The Fund's external managers undertake regular scenario analyses and monitor the development in and the consequences of climate change.

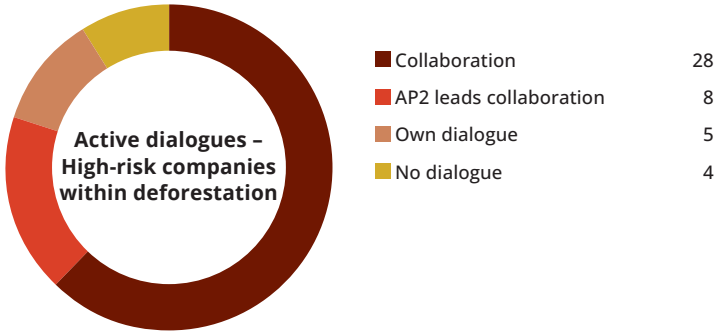
AP2 has conducted a climate assessment of the Fund's external managers of traditional real estate. The assessment includes the following criteria:

- Ambition towards net zero.
- Short- and long-term emission targets.
- Reporting of greenhouse gas emissions for Scope 1-3.
- Specific climate plan.
- That the manager follows its curve towards net zero.

Of all the Fund's real estate managers, 62 per cent are estimated to be aligning to net zero, 30 per cent are estimated to have started aligning to net zero and 8 per cent have made commitments to work towards net zero.

Sustainable infrastructure

The asset class is included in the Fund's targeted sustainability investments, and is an important part of the Fund's sustainability work. For this portfolio, too, AP2 has assessed the managers and how well they are aligning to net zero, and 38 per cent of the portfolio is already achieving net zero.



Private equity

AP2 reported greenhouse gas emissions for the private equity asset class for the first time in 2024. The Fund has started with the part of the investments called "buyout", i.e. unlisted mature companies with strong and stable cash flows. The managers of the respective private equity funds have collected emission data for their portfolio companies. Based on this data, the Fund has calculated greenhouse gas emissions for the asset class.

The next step for the asset class is to make an assessment of the managers and on the basis of the portfolio's emission data, together with the climate work carried out, assess the managers' alignment towards net zero.

The Fund's process for due diligence and side agreements includes requirements for new managers to adjust to net zero emissions.

By 2025, AP2 aims to conduct engagement work, through collaboration or under its own auspices, with all companies in the Fund's listed portfolio that have been identified with a high deforestation risk, with inadequate management of the risk.

Based on an analysis of the equities and corporate credit portfolios using the deforestation model described on page 16, AP2 identifies companies whose activities or geographical presence entail a very high deforestation risk. The next step is to investigate how companies manage the risk, for example through commitments to deforestation-free procurement, policies and processes. Companies with a very high risk, for which the Fund has not noted any robust work to prevent deforestation, are defined as high-risk companies. AP2 aims to conduct company dialogues with all of these

companies, which numbered 45 at the end of 2024. The most common sector is companies linked to the food value chain, with agricultural products with a particularly high risk, such as beef, soya and palm oil.

Many dialogues are conducted in collaboration with other investors within the initiatives Finance Sector Deforestation Action, Nature Action 100 and PRI Spring, on whose behalf AP2 also leads eight dialogues with high-risk companies. In addition, the Fund has initiated own dialogues with five companies. In total, AP2 had active dialogues with 41 of the 45 identified high-risk companies during the year, directly or indirectly through collaborations. AP2's goal is to engage in dialogue with all high-risk companies.

AP2 has seen good progress for several companies in the dialogues, with new commitments, improved transparency and increased work on traceability for raw materials with a high deforestation risk.

Engagement is based on the Fund's deforestation policy (see www.ap2.se), which describes the expectations on companies in AP2's portfolio.

Collaboration

- FSDA brings together international investors who, like AP2, are committed to working towards a deforestation-free portfolio. The dialogues are based on a common expectations document that is well in line with the Fund's expectations of portfolio companies. AP2 leads seven of these dialogues. All companies in the Fund's dialogues recognise the issue and work, at different stages, on managing the risks of deforestation. One observation during the 2024 dialogues is that several of the companies have improved their reporting, among other things by adhering to TNFD's framework. The Fund also notes that there is hesitance among companies towards making clear commitments to deforestation-free supply chains.
- Nature Action 100 is an investor initiative with a broader approach to biodiversity, launched in autumn 2023. The initiative has identified the 100 companies in eight sectors that are assessed to have the greatest negative impact on biodiversity. Among these companies are 13 of AP2's focus companies, of which three are not already engaged in FSDA's dialogues. The Fund has a leading role in two dialogues, which were initiated in 2024, including a first benchmark study from the initiative.
- The Investor Policy Dialogue on Deforestation (IPDD) conducts policy-level dialogues in countries with a high deforestation risk. The Fund is active in the working group for Brazil.

Voting

Prior to the 2025 voting season, AP2 wrote letters to three companies with high risk and inadequate management of the deforestation issue, and so far has marked its dissatisfaction with one of the companies through its voting.

Pollution is handled through the Council on Ethics

Pollution is the second most relevant driver of biodiversity loss for AP2, according to the materiality analysis. One serious form of pollution, which affects both human health and biodiversity,

is PFAS (per- and polyfluorinated alkyl substances). PFAS have many uses, from frying pans and impregnating clothing to firefighting foam and packaging. The problem is that PFAS are "forever chemicals" that do not break down, but accumulate in people, animals, water and nature over time – and have serious consequences such as hormonal disorders and cancer. Since 2023, the Council on Ethics has collaborated with around 60 international investors within the Investor Initiative on Hazardous Chemicals (IIHC). The initiative is coordinated by ChemSec, who are experts on harmful chemicals. The aim of the collaboration is for the chemical industry to phase out the use of harmful chemicals. The project is aimed at 50 chemical companies and focuses on three concrete sub-targets, where the companies must:

- Increase transparency regarding the company's exposure to harmful chemicals.
- Publish a time-limited phase-out plan for forever chemicals.
- Develop safer alternatives to hazardous chemicals.

The companies are evaluated annually in Chemscore, a benchmark that measures progress against the objectives. Chemscore for 2024 showed a slight improvement for the companies as a whole, but with some companies making greater progress and showing a way forward towards safer alternatives.

C. Integration of climate- and nature-related risks in the overall risk management.

Climate- and nature-related risks are part of the Fund's existing risk categories – financial risk, operational risk and impact risk – that are monitored on an ongoing basis and reported to the management group and Board of Directors. Climate and nature risks are relevant in all categories: financial risks linked to transition and physical risks and dependencies on depleted natural resources and ecosystems; operational risks in the form of reputational risk and reduced confidence in the business or pension system; and impact risks through the impact of investments on climate and nature.

Metrics and targets

Metrics and targets used to assess and manage climate- and nature-related impacts, dependencies, risks and opportunities.

A. Metrics used to assess climate- and nature-related risks and opportunities.

AP2 uses a large number of metrics to analyse the climate footprint, risks and opportunities within different asset classes. These include emissions, in both absolute terms and intensity, reasons for change (change in portfolio and companies' emissions, respectively), as well as indicators to assess companies' and managers' alignment to net zero emissions.

In 2024, AP2, in collaboration with the Climate & Company think tank, developed a method for analysing deforestation risk. AP2 uses this to measure the portfolio's deforestation risk within listed equities and credits. The Fund measures and monitors its management of the deforestation risk through engagement. AP2 also measures its exposure to sensitive geographies.

Finance for Biodiversity has drawn up recommendations for how the biodiversity targets can be designed, in three steps: Initiation targets, monitoring targets and portfolio targets. Since AP2 has already completed all the steps covered by the proposed initiation targets, our work is focused on defining monitoring targets, with the help of which and on a structured basis the Fund can monitor progress in the companies engaged in dialogues. AP2 is also evaluating the possibility of broader portfolio targets for high-risk sectors, but the Fund currently considers that the data quality is not sufficient to report on this.

In 2024 AP2 focused on deforestation risks in the portfolio and worked to develop relevant metrics in this area, including through the Climate & Company project described on page 16. The Fund continuously follows up the development of companies that are assessed to have a high deforestation risk. During 2025, AP2 is working to develop methods for systematic follow-up of the results of the dialogues based on concrete moves towards meeting the Fund's expectations in terms of commitment, policy, processes and transparency.

Transition risk metrics

Through transparent reporting, the Fund aims to give different perspectives on the transition risk and the greenhouse gas emissions arising from the portfolio's holdings. We calculate the total carbon emissions based on the operating value EVIC (Enterprise Value Including Cash), and/or market value, depending on the asset class. Reasons for changes in emissions are analysed for the listed equities and credit portfolio in order to follow up on whether changes are driven by changes in the portfolio or by changes in the companies' emissions. AP2 also measures the assets' sensitivity to, for example, a market price for carbon dioxide, and monitors development both in absolute terms and relative to the portfolio companies' revenue and portfolio value.

Greenhouse gas emissions

AP2 calculates greenhouse gas emissions for the Fund's various asset classes, as the basis for analyses of the Fund's transition risks and opportunities. The Fund calculates a number of different metrics based on greenhouse gas emissions, primarily for the equities and credit portfolio, but also for other asset classes.

The Fund's greenhouse gas emissions are expressed as carbon dioxide equivalents, CO_2e, and include all seven greenhouse gases under the Kyoto Protocol: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), incompletely halogenated fluorocarbons (HFC), fluorocarbons (FC), sulphur hexafluoride (SF_6) and nitrogen trifluoride (NF_3). Carbon dioxide, followed by methane and nitrous oxide, are the greenhouse gases that have the greatest impact on global warming.

Three different categories of greenhouse gas emissions

- **Scope 1** covers direct emissions that occur in the company's own operations, such as the combustion of coal during steel production, or fuel combustion from vehicles that the company owns or controls.
- **Scope 2** covers emissions from purchased electricity, heating and cooling.
- **Scope 3** covers emissions throughout the company's value chain, from the production of purchased materials to emissions during use of the company's product and any waste management of the product. Emissions such as business travel and other emissions caused, but not directly owned or controlled, by the company, are also included.

Greenhouse gas emission metrics

Based on, among other things, the portfolio holdings and the companies' latest available emission data as at 31 December, the following is calculated:

- **Total carbon emissions** for Scope 1, 2 and 3, which is the total AP2-owned share of portfolio companies' respective carbon emissions, based on the company's net asset value.
- **Relative carbon emissions** for Scope 1, 2 and 3, which is the total owned share of portfolio companies' respective carbon emissions, based on the company's net asset value relative to the portfolio's market value.
- **Weighted average carbon intensity (WACI)** for Scope 1, 2 and 3. The metric adds together the individual carbon intensity of each portfolio company, i.e. a company's carbon emissions in relation to its revenue, weighted according to each individual company's share of the portfolio.

Over time, AP2 seeks to expand reporting of greenhouse gas emissions to include more asset classes and to include Scope 1-3. Emissions in the portfolio for 2024 are reported for the asset classes equities, foreign corporate bonds, government bonds and green bonds, natural climate solutions (forestry and agricultural properties), non-listed real estate, sustainable infrastructure and private equity. This covers 94 per cent of the portfolio, compared to 86 per cent in 2023.

Challenges and limitations

Access to data is one of the challenges, which is particularly evident from the reporting of Scope 3 emissions. A high proportion of the Fund's reported emissions in Scope 3 are estimated emissions, as many companies do not yet report these emissions. In addition, there are major differences between what different companies choose to include in their reported Scope 3 emissions, as well as in the data providers' calculation methodology. The time aspect is another challenge presented by reported data, as emissions from the portfolio are based on the previous year's reported or estimated emissions from the companies in the portfolio. There is therefore a lag in terms of when actual changes are seen in the emissions for the investment portfolios.

In step with these changes, the Fund's reporting will be updated and historical data will need to be revised. There may therefore be deviations compared to previous reports.

AP2 uses emission data from MSCI ESG Research and Trucost for Scope 1 and 2. The average value of these two sources constitutes the Fund's carbon database, which is used to calculate the carbon footprint. Suppliers' data may include their estimates if reported data is missing. For Scope 3, only data from MSCI ESG Research is used. If there is no data from the suppliers, AP2 makes an estimate. The general trend is an increase in the proportion of reported data. For AP2's carbon footprint, data is available for 100 per cent of the listed equities portfolios. As discussed above, a precautionary approach should be taken to the calculation of Scope 3 emissions, as the emission figures for each company are subject to high uncertainty. In addition, double counting occurs when Scope 3 figures are summed up in an investment portfolio. However, AP2 considers it important to develop reporting in which all scopes are included.

These calculations are explained by the formulas given on AP2's website. More information about carbon footprints and formulas for other metrics is also available on the website.

Causes of changes in carbon emissions

AP2 analyses changes in the listed equities and credit portfolios' greenhouse gas emissions in order to understand the drivers behind the changes. The Fund attaches great importance to this follow-up, which is also the basis for engagement.

Possible factors that may explain changes in the portfolios over time might be:

- Reduced actual emissions from portfolio companies: This is the most beneficial driver as it represents an actual reduction in greenhouse gases released into the atmosphere.

- Reduced emissions due to changes in portfolio holdings: Greenhouse gas emissions are reduced due to the reweighting of portfolios towards sectors and/or companies with lower emissions.
- Changes in reporting and coverage: The portfolio's reported emissions may also change due to how data is collected and reported.
- Other drivers: For example, changes in company value or revenue in the companies may affect the reported emission metrics.

Assessments of companies' alignment to net zero emissions

Common to all asset classes, except global equities and credit, is that the Fund uses assessments of the asset class' alignment with net zero. The process for this is slightly different for each asset class, but all are based on the IIGCC's (Institutional Investors Group on Climate Change) Net Zero Investment Framework. AP2 applies the framework's categorisation of alignment to net zero when assessing companies, countries and external managers.

Using the framework's defined forward-looking alignment criteria, together with emission figures, the Fund can assess whether a company, country or external manager has credible plans to adjust to net zero emissions. The categorisation takes place in two stages, where the first stage defines whether the company, country or manager is a high- or low-emitter. Those defined as high emitters are then assessed according to the framework's criteria. Ambition or commitment towards net zero.

- Short- and long-term emission targets.
- Reporting of greenhouse gas emissions for Scope 1-3.
- Specific climate plan.
- Outcome against plan – following the defined curve towards net zero.

Assessment of countries' alignment to net zero

The Fund has been working on understanding and assessing countries' alignment to net zero for several years. The availability of data has been a challenge over the years. The public data source ASCOR (Assessing Sovereign Climate-related Opportunities and Risks), introduced in 2024, has given the Fund new opportunities to assess countries' climate alignment and report greenhouse gas emissions. Using ASCOR and other public sources, the Fund has built a tool to analyse a country's current situation and net zero plans and to evaluate these based on the Fair Share principle; see information to the right.

The tool is used to evaluate countries' emissions, climate alignment and forecasts against net zero, transition risk and physical risk. Based on this, the countries are categorised, which helps the Fund to prioritise investments and engagement.

Foreign listed equities and credits – follow-up against PAB

With regard to the global equities and credit portfolio, AP2 follows a PAB benchmark, as described on page 17. The Fund measures and tracks these portfolios against a corresponding market-weighted index and an expected annual emission reduction trajectory of 7 per cent. Over time, the portfolios' emissions must follow

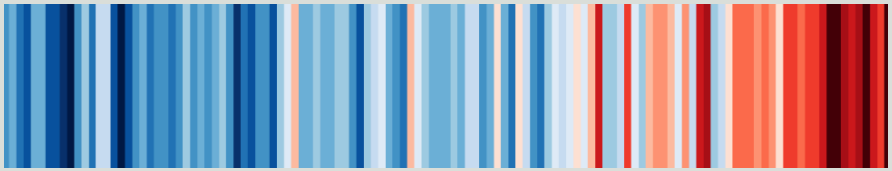
Fair Share principle

The Fair Share principle means that each country must contribute fairly to achieving the net zero emission target. The principle takes account of various factors such as historical emissions, economic capacity and current emission levels to determine by how much each country should reduce its emissions. The goal is to distribute responsibility fairly so that everyone contributes proportionately to the global efforts to reduce carbon emissions and combat climate change. In practice, this means that countries with higher historical emissions and greater economic resources are expected to make greater efforts and investments to reduce their emissions, compared to countries with lower historical emissions and fewer economic resources.

Case: Election in Ecuador

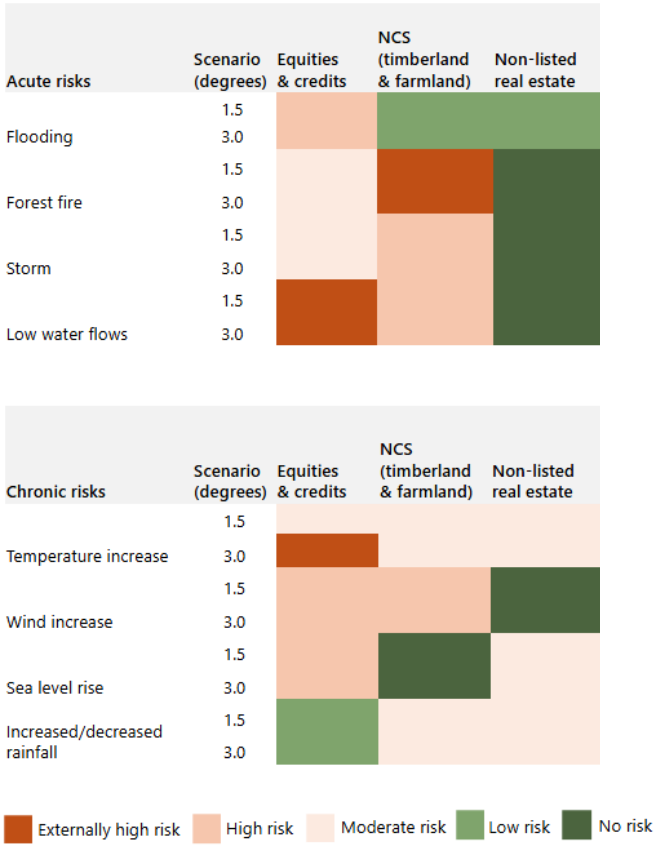
The latest election in Ecuador is a concrete example of how climate data is relevant for investment activities. Using underlying data from ASCOR in combination with data on physical risks from the public data source INFORM Climate Change Risk Index, AP2's portfolio manager was able to understand what was behind the electricity crisis that occurred in the country between 2023 and 2024.

These data sources clearly showed that the water levels at the hydroelectric power plants were completely exhausted due to prolonged drought and that there was a lack of capacity in the hydroelectric power system. This became a key issue in the last election. The climate analysis contributes to an understanding of the impact on the population and economy arising from this type of event and of the future development under different climate scenarios.



"Warming stripes" was created by climate scientist Ed Hawkins at the University of Reading in the UK. The aim was to communicate climate change to a wider audience in a simple and intuitive way without using technical details or diagrams. The first edition was published in 2018 and it has since become a powerful tool in climate communication. The above stripes show temperature changes in Ecuador for the years 1850-2024.

ASSESSMENT OF AP2'S PHYSICAL CLIMATE RISKS



this trajectory in accordance with the framework, but the development is expected to vary from year to year.

Metrics for physical climate risks

The Fund also assesses physical risks to the extent that data is available. For the equities and credit portfolio, the Fund's performance in different scenarios is compared with MSCI ACWI (read more on pages 12-13). This gives the Fund a perception of which of the physical risks are the greatest in the portfolio. This is then followed up at company level, primarily through dialogue with the companies in question.

For natural climate solutions (forestry and agriculture) and traditional real estate, the Fund's external managers make assessments that are disclosed to AP2. These are updated regularly by the respective managers. Sustainable infrastructure is an asset class with a portfolio under construction, which means that dialogue with the managers about the physical risks has not begun.

The Fund does not yet have access to data to assess physical risks in government bonds, private equity and non-listed credit.

AP2 invests in the non-listed credit asset class; in ILS (Insurance-Linked Securities) investments. These are financial instruments linked to insurance risks. These securities transfer risk from insurance companies to capital market investors. Common types of ILS include disaster bonds triggered by specific catastrophic events such as earthquakes or hurricanes. Through ILS, assets in high-risk areas continue to be insurable.

Greenhouse gas emissions

AP2 aims to reduce the portfolio's emissions in line with the Paris Agreement. The portfolio must reach net zero by 2045. By 2025, the Fund must have reduced the portfolio's emissions by 35 per cent, and by 55 per cent by 2030, from 2019 as the base year. Greenhouse gas emissions for 2024 total 6.3 million tCO_2e, which includes all asset classes except unlisted credits. This corresponds to a reduction of 44 per cent since 2019 as the base year, well in line with the Fund's target, although emissions increased slightly compared with the previous year (6.1 million tCO_2e). The main reason for the increase in emissions during the year is the Swedish equities asset class, where AP2 has increased investments in companies with high emissions, and as an active owner supports the companies in their transition to net zero. A temporary increase in the portfolio's emissions is an expected consequence of this strategy.

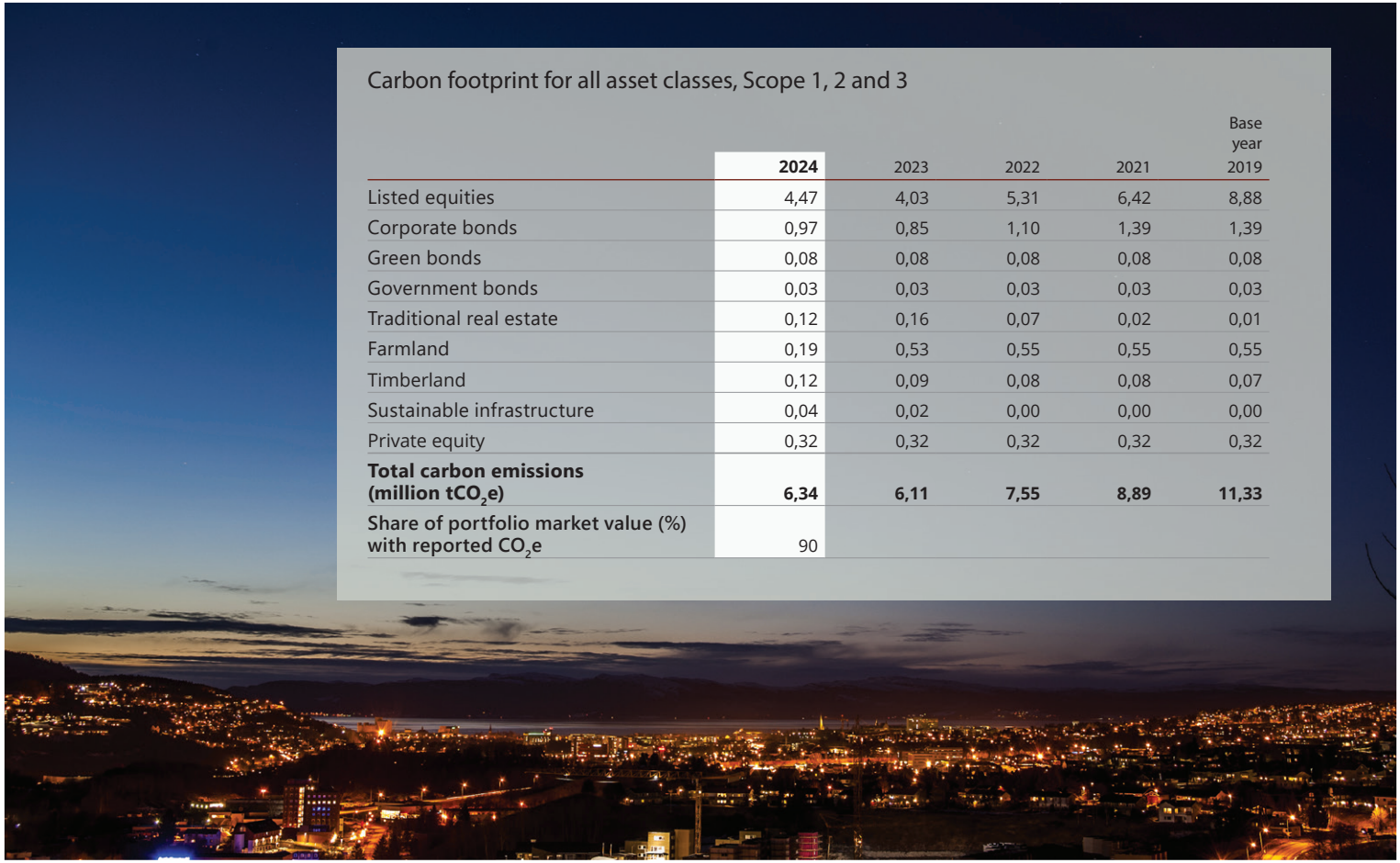
The increase in total greenhouse gas emissions during the year is entirely attributable to Scope 3, while the Fund's Scope 1 and 2 emissions decreased. The reporting of emissions in Scope 3 is affected by the poor quality of the underlying companies' reporting, which means that variations between years may occur and that the Fund will need to revise historical data as the availability of data develops. In addition, double counting occurs when Scope 3 figures are summarised for an investment portfolio. AP2 nonetheless considers it important to continue to develop reporting in which all scopes are included. This is so that the company - and AP2 as the owner - will take responsibility for, and be transparent about, all emissions.

B. TCFD: Reporting on Scope 1, 2 and 3 greenhouse gases.

TNFD: Metrics used to assess and manage nature-related impacts and dependencies.

AP2 reports on greenhouse gas emissions for around 94 per cent of the Fund's assets and in accordance with Scope 1, 2 and 3. For equities and corporate bonds, emissions are reported in accordance with the AP Funds' joint reporting, drivers of changes in emissions and portfolios' performance compared to the Paris Aligned Benchmark.

The Fund's reporting of nature-related metrics is being developed and currently includes estimates of sector and geographical exposure to nature-related impacts and dependencies, as well as nature-related risks and opportunities according to TNFD Core.



Carbon footprint for all asset classes, Scope 1, 2 and 3

	2024	2023	2022	2021	Base year 2019
Listed equities	4,47	4,03	5,31	6,42	8,88
Corporate bonds	0,97	0,85	1,10	1,39	1,39
Green bonds	0,08	0,08	0,08	0,08	0,08
Government bonds	0,03	0,03	0,03	0,03	0,03
Traditional real estate	0,12	0,16	0,07	0,02	0,01
Farmland	0,19	0,53	0,55	0,55	0,55
Timberland	0,12	0,09	0,08	0,08	0,07
Sustainable infrastructure	0,04	0,02	0,00	0,00	0,00
Private equity	0,32	0,32	0,32	0,32	0,32
Total carbon emissions (million tCO_2e)	**6,34**	**6,11**	**7,55**	**8,89**	**11,33**
Share of portfolio market value (%) with reported CO_2e	90				

Emission reporting for private equity

For the private equity asset class, as stated previously the Fund currently only calculates greenhouse gas emissions for the investments called buyout, i.e. unlisted mature companies with strong and stable cash flows. As far as possible, the external managers of these investments have collected emission data for their portfolio companies. Using this data, AP2 has calculated the Fund's total greenhouse gas emissions (Scope 1-3) at 0.32 million tCO_2e for this portfolio. The reliability of Scope 3 data is also a challenge for this asset class. The Fund expects an increased share of reported emissions for the asset class and, in this connection, an increase in reported emissions for private equity.

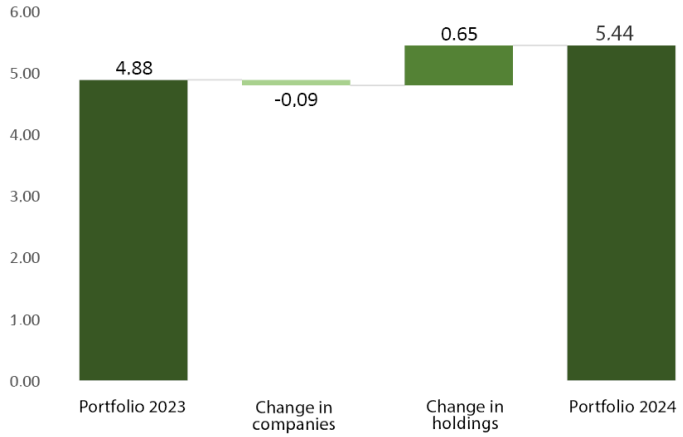
Reasons for changes in carbon emissions

The graphs below present two of the main reasons for the change between 2023 and 2024 for AP2's listed equities and credits. The calculations concern emission data from Scope 1, 2 and 3 expressed in millions of tCO_2e, i.e. absolute emissions and thousand tonnes of CO_2e per million SEK (million tCO_2e) respectively, which are relative emissions based on conversion. A pleasing development is that while the portfolio's emissions have increased due to investments in companies that emit more, the companies have reduced their emissions by -1.9 per cent in total for the asset classes equities and corporate credits. This is positive because the companies' reduced emissions in the long run have an effect on global greenhouse gas emissions to the atmosphere. To contribute to driving this change, AP2 intensified its engagement with high-emission companies.

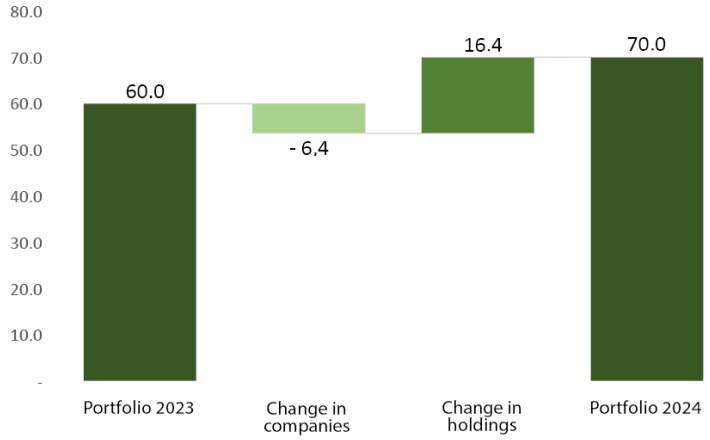
Reporting of Scope 1, 2 and 3

AP2 has expanded its reporting to include another asset class, private equity. To increase the transparency of the entire portfolio, the distribution on Scope 1, 2 and 3 is also reported for all asset classes, with the exception of government bonds, for which the Fund reports both production-based and consumption-based emissions, instead of the distribution by scope.

Causes of change in total carbon emissions between 2023 and 2024, million tCO_2e



Causes of change in portfolio-weighted carbon intensity between 2023 and 2024, tCO_2e/msek



Carbon footprint of the listed equities portfolio

	2024	2023	2022	2021	Base year 2019
Carbon emissions, Scope 1 & 2 (mn tCO_2e)	**0.3**	**0.4**	**0.6**	**0.7**	**0.9**
Change in the portfolio's carbon emissions from the previous year (%)	–20.9	–36.0	–8.7	–15.4	
– of which change related to changes in the portfolio's holdings (% units)	–15.3	–39.5	–20.4	–11.2	
– of which change related to changes in the companies' emissions (% units)	–5.6	3.5	11.7	–4.2	
Carbon emissions, Scope 3 (mn tCO_2e)	4.1	3.6	4.7	5.7	7.6
Relative carbon emissions, Scope 1 & 2 (tCO_2e/SEKm)	2.6	4.5	7.4	6.3	11.6
Weighted average carbon intensity (WACI), Scope 1 & 2 (tCO_2e/SEKm)	**5.0**	**5.7**	**8.2**	**9.0**	**13.7**
Change in the portfolio's carbon intensity from the previous year (%)	–11.1	–30.4	–9.0	–24.7	
– of which change related to changes in the portfolio's holdings (% units)	6.8	–28.9	5.7	-4.1	
– of which change related to changes in the companies' carbon intensity (% units)	–17.9	–1.5	–14.7	–20.6	
Mapped market value as a share of total fund capital, %	40				
Weighted average carbon intensity (WACI), Scope 3 (tCO_2e/SEKm)	63.8	54.2	71.5	70.2	85.7

	2024	2023	2022	2021	Base year 2019
Carbon emissions, Scope 1, 2 and 3 (mn tCO_2e)	**4.5**	**4.0**	**5.3**	**6.4**	**8.5**
Change in the portfolio's total carbon emissions from the previous year (%)	10.9	–24.2	–17.2	6.5	
– of which change related to changes in the portfolio's holdings (% units)	11.6	–28.2	–34.8	4.0	
– of which change related to changes in the companies' emissions (% units)	-0.7	4.0	17.6	2.5	
Weighted average carbon intensity (WACI), Scope 1, 2 and 3 (tCO_2e/SEKm)	**57.3**	**48.9**	**65.3**	**65.3**	**79.2**
Change in the portfolio's carbon intensity from the previous year (%)	17.1	–25.0	-0.01	–3.4	
– of which change related to changes in the portfolio's holdings (% units)	24.2	–25.6	–9.9	6.9	
– of which change related to changes in the companies' carbon intensity (% units)	–7.2	0.6	9.9	–10.3	

Carbon emissions, Scope 1, 2 and 3. The sum of the owned share of the portfolio companies' respective carbon emissions based on Enterprise Value Including Cash (EVIC).

Relative carbon emissions, Scope 1 and 2. The sum of the owned share of the portfolio companies' respective carbon emissions in relation to the portfolio's listed value.

Weighted average carbon intensity (WACI), Scope 1, 2 and 3. The sum of the portfolio companies' respective carbon intensity, i.e. a company's carbon emissions in relation to its revenue, weighted on the basis of the respective company's share of the portfolio.

The formulae for the above metrics are available on the Fund's website. CO_2e (carbon equivalent) is a unit of measurement that makes it possible to compare the climate impact of different greenhouse gases.

Carbon footprint of the listed credit portfolio

	2024	2023	2022	2021	Base year 2019
Carbon emissions, Scope 1 & 2 (mn tCO_2e)	0.1	0.1	0.2	0.2	0.3
Carbon emissions, Scope 3 (mn tCO_2e)	0.9	0.7	0.9	1.2	1.1
Weighted average carbon intensity (WACI), Scope 1 & 2 (tCO_2e/SEKm)	8.6	9.2	13.0	13.7	21.3
Weighted average carbon intensity (WACI), Scope 3 (tCO_2e/SEKm)	67.1	50.7	42.8	59.0	66.7
Carbon emissions, Scope 1, 2 and 3 (mn tCO_2e)	1.0	0.8	1.1	1.4	1.4
Weighted average carbon intensity (WACI), Scope 1, 2 and 3 (tCO_2e/SEKm)	75.7	60.0	55.8	72.7	88.0
Share of portfolio market value (%) with reported CO_2e	9				

Other asset classes

	2024
Carbon emissions, Scope 1 & 2, (tCO2e)	
Green bonds	12,954
Non-listed real estate	103,508
NCS, Timberland & farmland	45,095
Sustainable infrastructure	42,927
Private equity	51,563
Carbon emissions, Scope 3, (tCO□e)	
Green bonds	66,867
Non-listed real estate	17,271
NCS, Timberland & farmland	273,288
Sustainable infrastructure	38,278
Private equity	266,744
Carbon emissions, Scope 1, 2 and 3, (tCOe)	
Government bonds, production-based	1,045,000
Government bonds, consumption-based	32,056

Swedish equities

The portfolio companies' alignment to net zero in Swedish equities is assessed according to the IIGCC framework, which is described on page 17. For the Swedish equities asset class, the Fund's selection is based on approximately 95 per cent of the largest issuing companies in the portfolio. Holdings and emissions change over time, and for 2024, 17 companies in the portfolio are assessed to be high-emitting, of which six have begun alignment or are aligning. The change between 2023 and 2024 is mainly due to changes in the portfolio.

Government bonds and green bonds

For the second consecutive year, an assessment is made of the alignment to net zero for government bonds. The graph below shows AP2's assessment of government bonds' alignment to net zero for 2024 compared with 2023. The comparison shows a positive shift towards net zero. AP2 continues to develop the process for assessment and reporting of the asset class. In addition to the production-based emission figure reported last year, the Fund can now also report Scope 1, 2 and 3 emissions minus exported emissions, called consumption-based emissions. In accordance with PCAF (Partnership for Carbon Accounting Financials), both metrics should be reported to give the most accurate picture of the portfolio's emissions. Production emissions report emissions produced in the country and include domestic consumption and exports. Consumption emissions give a broader picture of states' greenhouse gas emissions and also reflect the fairness aspect, as the countries that cause the emissions should also be responsible for the entire emission chain. We report for approximately 68 (58) per cent of the asset class' market value. Emissions based on consumption were estimated at 0.03 million tCO_2e in 2024. Emissions based on production were estimated at 1.04 (1.07) million tCO_2e. Emissions decreased in 2024. This is due to changes in holdings, but also to states' reduced emissions.

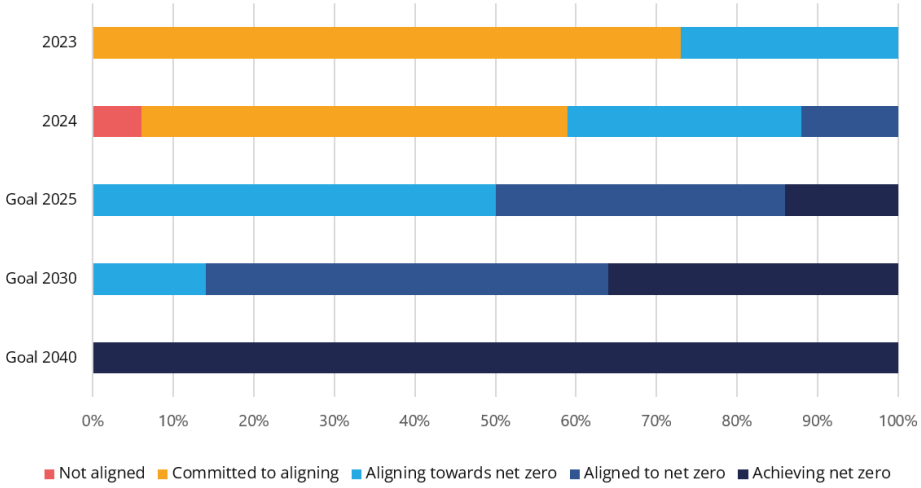
AP2 is reporting greenhouse gas emissions for green bonds for the first time. Funds use the same data source as for global credit and can report emission data for 24 per cent of the value of corporate bonds in the green bond portfolio. Scope 1-3 emissions for these amounted to 26,000 tCO_2e for 2024.

Real assets

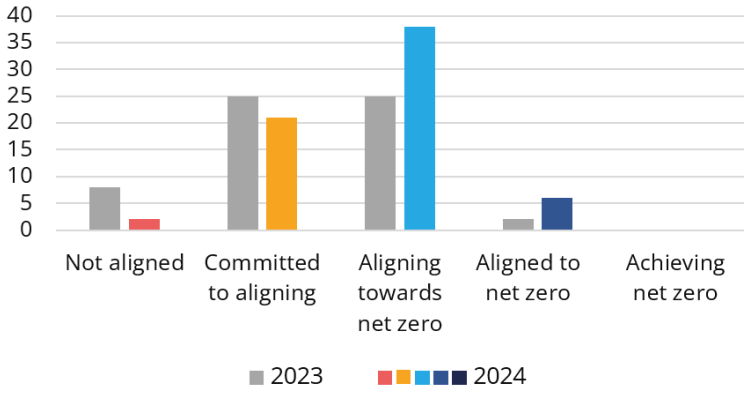
Natural climate solutions

The Fund's investments in natural climate solutions (NCS) include forestry and agricultural properties that fulfil AP2's sustainability criteria and where the managers work to preserve, restore and improve ecosystems and achieve climate benefits. In 2024, the Fund evaluated its managers and made a net

Alignment to net zero – Swedish equities, %



Alignment to net zero – government bonds and green bonds, %



zero assessment based on the IIGCC Net Zero Investment Framework. The outcome of this assessment is that 90 per cent of the portfolio achieves net zero, according to the criteria applied by AP2. AP2 is also continuing to expand the reporting of greenhouse gas emissions for the asset class, although this is a very small part of the Fund's total emissions. For 2024, the Fund's emissions for the NCS portfolio are estimated at 0.31 (0.62) million tCO_2e. The Fund also calculates the total carbon sequestration for the portfolio using data from the managers. AP2's share of carbon sequestration for NCS is estimated at 55 (51) million tCO_2e.

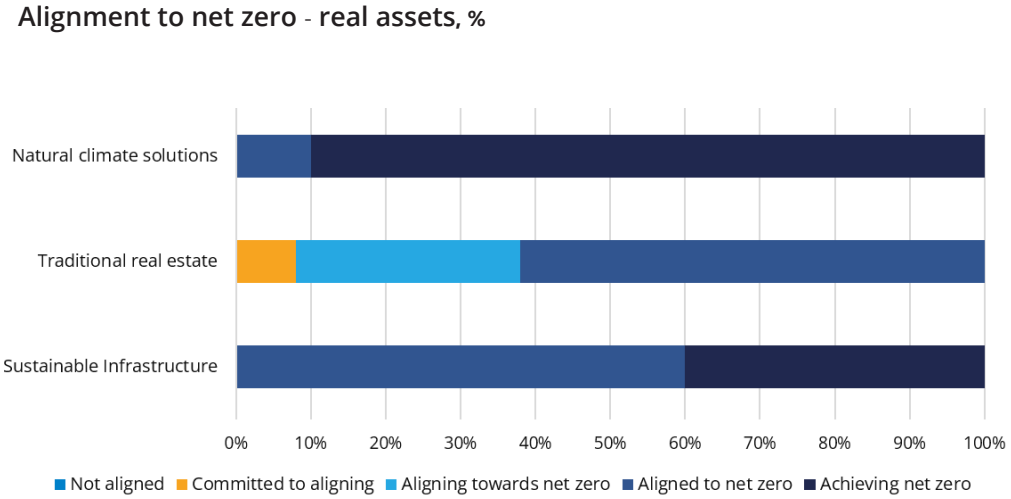
Traditional real estate

This year, we also conducted a climate assessment of our managers for traditional real estate, according to the same principle as above. For the Fund's real estate managers, 30 per cent of the portfolio is assessed to have begun alignment to net zero, and 62 per cent has aligned to net zero. The assessments served as a basis for dialogue with the managers during the year and contributed to several positive measures.

The portfolio is also monitored for a number of different metrics in terms of climate. The portfolio's greenhouse gas emissions amount to 0.12 (0.16) million tCO_2e, which is a reduction from the previous year. All managers work intensively to reduce emissions from their real estate. In addition to greenhouse gas emissions, the Fund monitors real estate's energy consumption, 93 (128) kWh/m^2, and greenhouse gas emissions per area unit 0.026 (0.025) tCO_2e/m^2.

Sustainable infrastructure

The asset class is included in the Fund's targeted sustainable investments, and is an important aspect of the Fund's sustainability work. For this portfolio, too, we have assessed the managers and how well they are aligning to net zero. Thirty eight per cent of the portfolio reaches net zero, and the remaining share aligns to net zero. Greenhouse gas reporting has also increased for the asset class and for 2024, the portfolio shows emissions of approximately 43,000 (20,000) tCO_2e. The portfolio is under construction, which means that some reporting and assessment are delayed.



Indicators for nature-related impacts and dependencies

Exposure to sectors with high nature-related impacts and dependencies

AP2 has analysed its exposure using the ENCORE tool; see description and illustration on page 8. In total, 21 per cent of AP2's assets are invested in sectors identified by TNFD, through the asset classes comprising listed equities and credits, private equity funds, farmland and timberland investments and the Fund's investments in sustainable infrastructure.

Exposure to sensitive geographies

Reported for investments in farmland and timberland and for listed equities, totalling 2.2 per cent of the Fund's assets:

- 25 per cent of the Fund's investments in farmland and timberland have exposure to sensitive geographies, with 14 per cent in Brazil, in biomes particularly important for biodiversity, and 11 per cent in California, with a high risk of water shortages. In total, this corresponds to 1 per cent of the Fund's assets.
- For the listed equities portfolio, the Fund's analysis shows that 3 per cent of the companies are active in geographically sensitive areas and in sectors with a high risk of deforestation, corresponding to 1.2 per cent of the Fund's assets.

AP2 has exposure to sensitive geographies in other asset classes and aims to be able to map this exposure too.

INDICATORS AND METRICS FOR NATURE-RELATED RISKS AND OPPORTUNITIES[1]

Category	Metrics	AP2 reporting 2023
Risks	Assets with high nature-related transition risk.	Based on a climate scenario with an orderly transition, approximately 4 per cent of the Fund's total portfolio is estimated to have a high climate- and nature-related transition risk[1].
	Assets with high nature-related physical risk.	Based on a climate scenario with global warming to 3°C, and with aggressive assumptions concerning physical risks, approximately 7 per cent of the Fund's total portfolio is estimated to have a high climate- and nature-related physical risk[2], primarily extreme heat and flood risk.
	Fines or compensation during the year from nature-related incidents.	0
Opportunities	Investments in nature-related opportunities.	In December 2024, the Fund's total investment in climate- and nature-related sustainability solutions amounted to approximately SEK 60 billion. These are defined according to the Operating Principles for Impact Management[3].
	Income from products and services with positive impacts on nature.	Non-applicable

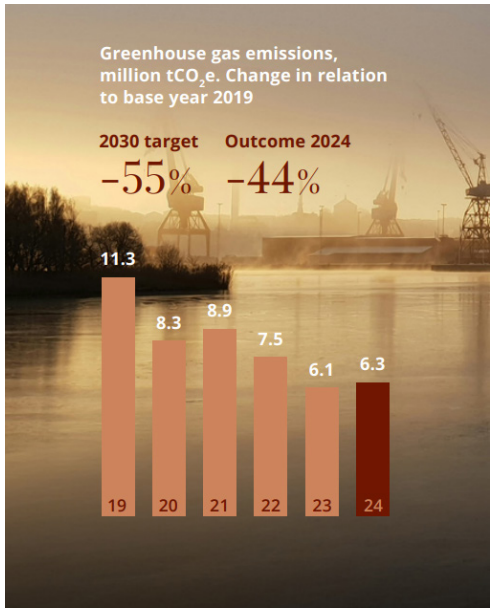
[1] Includes both climate- and nature-related transition risk and physical risk.

[2] High risk is defined by AP2 as companies with a climate- or nature-related risk that amounts to at least 20 per cent of the company's value in a scenario analysis with data from MSCI.

[3] www.impactprinciples.org

C. AP2's goals for managing climate- and nature-related impacts, dependencies, risks and opportunities, and outcomes in relation to these.

AP2 has defined goals for climate and nature in the short, medium and long term, to set the direction for the work of developing a climate- and nature-aligned portfolio.



Climate goals

- **AP2 must have net zero emissions of greenhouse gases by 2045.**

  The Fund's goal is for the entire portfolio to be in line with the Paris Agreement, i.e. for the portfolio's greenhouse gas emissions to decrease at a rate that can limit global warming to 1.5°C. The Paris Agreement stipulates that net zero emissions must be achieved by 2050 at the latest. Since Sweden is committed to a steeper reduction, with net zero as early as 2045, AP2 believes that this target should also apply to the Fund.

- **AP2's greenhouse gas emissions must be reduced by at least 35 per cent by 2025, and by 55 per cent by 2030.**

  Research shows that emission reductions need to start quickly, with an approximate halving every ten years, to limit global warming to 1.5°C. Since AP2 has set the target of achieving net zero by 2045, the Fund should also strive for a substantial reduction as early as 2030. The above target, with 2019 as the base year, corresponds to a linear reduction rate of 7 per cent per annum.

Outcome 2024

AP2's greenhouse gas emissions have been reduced by 44 per cent since 2019. AP2 is reporting the Fund's total greenhouse gas emissions (Scope 1-3) for the second consecutive year. Greenhouse gas emissions have been measured for all asset classes, except non-listed credits, and total 6.3 million tCO_2e. This corresponds to a reduction of 44 per cent since 2019 as the base year, well in line with the target of -35 per cent by 2025, although emissions increased slightly compared to the previous year (6.1 million tCO_2e). The main reason for the increase in emissions during the year is the asset class Swedish equities. AP2 has increased investments in companies with high emissions, where the Fund as an active owner can support companies in their transition to net zero. A temporary increase in the portfolio's emissions is an expected consequence of this strategy.

The increase in total greenhouse gas emissions during the year is entirely attributable to Scope 3, while emissions decreased in Scope 1 and 2. The reporting of emissions in Scope 3 is affected by the poor quality of the underlying companies' reporting, which means that variations between years may occur and that historical data will be revised as the availability of data develops. In addition, double counting occurs when Scope 3 figures are summarised for an investment portfolio. However, AP2 believes that it is important to develop reporting with all scopes included, and the ambition is to be as transparent as possible with regard to the portfolio's emissions.

Nature goals

- **AP2 must contribute to being net positive for nature by 2030.**

  There is still no consensus on what the concept of nature positive entails, and work is underway to develop a definition. Nevertheless, AP2 has chosen to use the concept as an overall objective whereby nature, with biodiversity, ecosystems and nature capital, develops in a positive direction, with the Fund contributing to this development. When the organisations working on the definition of nature positive have reached a common view, the Fund will review the objective in the light of this.

- **By 2025 AP2 must have a portfolio that does not contribute to deforestation.**

  The Fund has defined a target for deforestation, which is the main driver of biodiversity loss and is relevant to the Fund's investments This goal is in line with the commitment to a portfolio free of deforestation due to agricultural products made by AP2 in connection with COP26, and with the Fund's climate commitment to net zero greenhouse gas emissions by 2045. The Fund's ambition is, by 2025, to contribute to engagement with 100 per cent of the portfolio companies identified as having a high deforestation risk and weak management of this risk.

Outcome 2024

Methods and metrics for monitoring the nature-related goals are being developed. This is currently followed up through risk analysis of the portfolio and by continuous follow-up of the Fund's advocacy work in this area. In 2024, AP2 contributed to company dialogues with 91 per cent of the portfolio companies identified as having a high deforestation risk and insufficient management.

Finance for Biodiversity

Work is ongoing to develop more concrete targets and metrics for biodiversity. AP2 is committed to living up to the promise that AP2 has made as signatories to and members of Finance for Biodiversity. This promise means that we are committed to:

1. Collaborating and sharing knowledge.
2. Engaging in advocacy work with companies.
3. Assessing our impact on nature.
4. Setting targets for the work.
5. Reporting publicly on the above issues.

Finance for Biodiversity has drawn up recommendations for how the targets can be designed, in three steps: Initiation targets, monitoring targets and portfolio targets. As AP2 has already completed all the steps covered by the proposed initiation targets, we are focusing on the work of defining monitoring targets, with the help of which we can monitor the progress in a structured way in the dialogues we conduct. Broader portfolio targets for high-risk sectors are also being evaluated, but we currently do not consider the data quality to be sufficient to report on this.

See the full commitment at www.financeforbiodiversity.org

TABLE 1A EXAMPLES OF POTENTIAL TRANSITION RISKS (ADAPTED FROM THE TCFD)

Transition risks	Potential financial impacts on companies	Potential financial impact on AP2
Policy and Legal		
• Increased pricing of GHG emissions • Enhanced emissions-reporting obligations • Mandates on and regulation of existing products and services • Exposure to litigation	• Increased prices for greenhouse gas emissions. • Greater requirements for emissions reporting. • Higher requirements/regulations for existing products and services. • Exposure to legal processes (lawsuits).	Higher prices for carbon, regulations and reporting are generally positive financially for AP2 as owner. If costs for carbon are internalized, it provides a more efficient market. The challenge for AP2 is to identify which asset classes/sectors/companies are winners and losers.
Technology		
• Substitution of existing products and services with lower emissions options • Unsuccessful investment in new technologies • Costs to transition to lower emissions technology	• Write-offs and early retirement of existing assets. • Reduced demand for products and services. • Research and development (R&D) expenditures in new and alternative technologies. • Capital investments in technology development. • Costs to adopt/deploy new practices and processes.	The rate of transition is decisive for the financial valuation of the fossil reserves and companies with assets that depend on fossil energy for their products/services. The introduction of PAB has reduced AP2's financial exposure to fossil assets. A challenge for AP2 is to assess which technologies will succeed, at what pace and how asset types, sectors, companies are affected.
Market		
• Changing customer behavior • Uncertainty in market signals • Increased cost of raw materials	• Reduced demand for goods and services due to shift in consumer preferences. • Increased production costs due to changing input prices (e.g. energy, water) and output requirements (e.g. waste treatment). • Abrupt and unexpected shifts in energy costs. • Change in revenue mix and sources, resulting in decreased revenues. • Re-pricing of assets (e.g. fossil fuel reserves, land valuations, securities valuations).	Technological and market risks and opportunities are linked. The transition will involve changes among consumers and they may both depend on changes in preferences and/or technological changes. The challenge is the same as for technological risks.
Reputation		
• Shifts in consumer preferences • Stigmatization of sector • Increased stakeholder concern or negative stakeholder feedback	Reduced revenue from decreased: • Demand for goods/services. • Production capacity (e.g. delayed planning approvals, supply chain interruptions). • Negative impacts on workforce management and planning (e.g. employee attraction and retention).	Companies can create increased shareholder value by reinforcing their brand. It is important that companies/funds in the AP2 portfolio do not violate conventions and guidelines that Sweden has signed up to.

TABLE 1B EXAMPLES OF POTENTIAL PHYSICAL CLIMATE-RELATED RISKS (ADAPTED FROM THE TCFD)

PHYSICAL CLIMATE RISKS	Potential financial impacts on companies	Potential financial impacts on AP2
Acute		
• Increased severity of extreme weather events such as cyclones and floods	• Reduced revenue from decreased production capacity (e.g. transport difficulties, supply chain interruptions). • Reduced revenue and higher costs from negative impacts on workforce (e.g. health, safety, absenteeism). • Write-offs and early retirement of existing assets (e.g. damage to property and assets in "high-risk" locations). • Increased operating costs (e.g., inadequate water supply for hydro-electric plants or to cool nuclear and fossil fuel plants). • Increased capital costs (e.g., damage to facilities). • Reduced revenues from lower sales/output. • Increased insurance premiums and potential for reduced availability of insurance on assets in "high-risk" locations.	Physical climate-related risks can potentially affect all asset classes, including the Fund's real estate, timberland and farmland assets. Work is underway to analyze the physical risks in the Fund's listed portfolios for equities and credits.
Chronic		
• Changes in precipitation patterns and extreme variability in weather patterns • Rising mean temperatures • Rising sea levels		

TABLE 2 EXAMPLES OF POTENTIAL CLIMATE-RELATED OPPORTUNITIES (ADAPTED FROM THE TCFD)

CLIMATE-RELATED OPPORTUNITIES	Potential financial impacts on companies	Potential financial impacts on AP2
Resource efficiency		
• Use of more efficient modes of transport • Use of more efficient production and distribution processes • Use of recycling • Move to more efficient buildings • Reduced water usage and consumption	• Reduced operating costs (e.g. through efficiency gains and cost reductions). • Increased production capacity, resulting in increased revenues. • Increased value of fixed assets (e.g. highly rated energy-efficient buildings). • Benefits to workforce management and planning (e.g. improved health and safety, employee satisfaction) resulting in lower costs.	It is beneficial to AP2 for companies to work with climate-related opportunities in a way that increases shareholder value. By integrating ESG factors into investment analyses and processes, the Fund is able to identify companies that are resource-efficient. AP2 sees investment opportunities in these areas and invests in them through several different asset classes, including sustainable infrastructure and green bonds.
Energy source		
• Use of lower-emission sources of energy • Use of supportive policy incentives • Use of new technologies • Participation in carbon market • Shift toward decentralized energy generation	• Reduced operational costs (e.g. through use of lowest cost abatement). • Reduced exposure to future fossil fuel price increases. • Reduced exposure to GHG emissions and therefore less sensitivity to changes in cost of carbon. • Returns on investment in low-emission technology. • Increased capital availability (e.g. as more investors favour lower-emissions producers). • Reputational benefits resulting in increased demand for goods/services.	
Products and services		
• Development and/or expansion of low emission goods and services • Development of climate adaptation and insurance risk solutions • Development of new products or services through R&D and innovation • Ability to diversify business activities • Shift in consumer preferences	• Increased revenue through demand for lower emissions products and services. • Increased revenue through new solutions to adaptation needs (e.g. insurance risk transfer products and services). • Better competitive position to reflect shifting consumer preferences, resulting in increased revenues.	
Markets		
• Access to new markets • Use of public-sector incentives • Access to new assets and locations needing insurance coverage	• Increased revenues through access to new and emerging markets (e.g. partnerships with governments, development banks). • Increased diversification of financial assets (e.g. green bonds and infrastructure).	
Resilience		
• Participation in renewable energy programs and adoption of energy-efficient measures • Resource substitutes/diversification	• Increased market valuation through resilience planning (e.g. infrastructure, land, buildings). • Increased reliability of supply chain and ability to operate under various conditions. • Increased revenue through new products and services related to ensuring resiliency.	

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Photos: Johanna Sörgardt, Caroline Eking and Shutterstock.