



TCFD report

For year ending 31st March 2023



TCFD report for year ending 31st March 2023

AA Pension Scheme (the "Scheme")

Produced by: The Trustee of the AA Pension Scheme

Date: July 2023

Introduction

Climate change is affecting the planet, causing extreme weather events, impacting crop production and threatening Earth's ecosystems. Understanding the impact of climate change and the Scheme's vulnerability to climate risks will help us to mitigate the risks and take advantage of any opportunities.

The TCFD is an initiative that developed some best practice guidance for climate-risk reporting. New UK regulations require the trustees to meet climate governance requirements and publish an annual TCFD-aligned report on their pension scheme's climate risks.

Better climate reporting should lead to better-informed decision-making on climate risks. And on top of that, greater transparency around climate risks should lead to more accountability and provide decision-useful information to investors and beneficiaries.

This document is the first annual TCFD report for the AA Pension Scheme (the "Scheme"). It has been prepared by the Trustee for the year ending 31 March 2023.

Contents

Executive summary	3
Governance	6
Strategy	9
Risk management	18
Metrics and Targets	24
Appendices	31

What is TCFD?

The Financial Stability Board created the Taskforce on Climate-related Financial Disclosure ("TCFD") to develop recommendations on the types of information that entities should disclose to support investors, lenders, and insurance underwriters in appropriately assessing and pricing risks related to climate change.

The TCFD has developed a framework to help public companies and other organisations, including pension schemes, more effectively disclose climate-related risks and opportunities through their existing reporting processes.

Executive summary

It is widely recognised that climate change poses a major risk to our planet through affecting global ecosystems, human health and economies. This report aims to understand the impact of climate change and the vulnerability of the Scheme to climate risks, in order to help us mitigate the risks and leverage any opportunities.

This TCFD-aligned report was produced with support from Aon, whereby it carefully considers the potential impact climate change could have on the Scheme's investments. The report details how we identify, manage, and mitigate those risks.

The report is divided into the four key pillars: governance, strategy, risk management, and metrics and targets. These are the core areas of business practice and disclosure the TCFD recommends should be reported on. In completing this exercise, we have ensured that climate matters are adequately embedded in our governance, strategy, and risk management processes, and are transparently reported.

Our findings

Governance

The Trustee is collectively responsible for all strategic matters relating to the Scheme. This includes approval of the governance and management framework relating to environmental, social and governance ("ESG") considerations and climate risks and opportunities. The Trustee delegates a number of key activities to the Investment Committee including the implementation of the Scheme's climate change risk management framework.

The Trustee also makes use of other advisors including the Investment Consultant, Scheme Actuary, Fiduciary Manager and Covenant Advisor.

Strategy

From the qualitative analysis, it was apparent that climate-related risks and opportunities impact all the asset classes in which the Scheme invests. Over time, there is a general expectation that the impact of physical and transition risks increase. Alongside this, climate change provided numerous investment opportunities for the different asset classes.

The Scheme has a reasonable degree of resilience to climate-related risks, which was a key outcome from the quantitative climate scenario analysis undertaken. Resilience was demonstrated under all five climate scenarios. This was primarily driven by the high level of diversification in the assets the Scheme invests in.

Risk Management

The Trustee has integrated climate-related risks into its documents and processes. For example, the Trustee has a clear policy on stewardship, including the impact of climate change, as outlined in its Statement of Investment Principles. In addition, the Trustee receives data on voting and engagement from its managers annually (as outlined in its Engagement Policy Implementation Statement).

The Trustee has outlined a Climate Risk Management Plan, on pages 36-37, which assists with the ongoing management of climate related risks and opportunities.

Alongside this, the Trustee undertakes periodic training on responsible investment to understand how ESG factors, including climate change, may impact the Scheme's assets and liabilities. Details of training the Trustee has undertaken through the Scheme year are included in the Governance and Risk Management Sections.

Metrics and Targets

The Trustee gathered the carbon emissions data for the Scheme's asset portfolio from a range of different sources, including its investment managers, fiduciary managers, and other data vendors. The Trustee has, as far as it is able, collated the data for the total greenhouse gas emissions, carbon footprint and a portfolio alignment metric for the Scheme's assets.

The total greenhouse gas emissions associated with the Scheme's assets were 191,930 (tCO₂e) with a data coverage of 60%. As a result of the data assessment, the Trustee has agreed a target of improving the data coverage up to 75% by 2026 across all asset classes.

We hope you enjoy reading this report and understanding more about how we are managing climate risks and opportunities within the Scheme.

Mr S Delo – Chairman of A.A. Pensions Trustees Limited

On behalf of the Trustee of the AA Pension Scheme



Governance

Governance

Role of the Trustee

The Trustee is collectively responsible for oversight of all strategic matters related to the Scheme. This includes approval of the governance and management framework relating to environmental, social and governance (“ESG”) considerations and climate risks and opportunities. Given its importance, the Trustee has not identified one individual to be specifically responsible for the Trustee’s response to climate risks and opportunities. Rather, the Trustee has collective responsibility for managing the Scheme’s climate change risk framework.

The Trustee has discussed and agreed its climate beliefs and overarching approach to managing climate change risk. Details are set out in the Statement of Investment Principles (“SIP”) and Responsible Investment policy.

Our climate beliefs and objectives

- The Trustee’s focus is on its fiduciary duty to act in the best financial interest of the Scheme and its beneficiaries, seeking the best return that is consistent with a prudent and appropriate level of risk. Inter alia, this includes the risk that environmental factors, including climate change, may negatively impact the value of the investments held if not understood and evaluated properly.
- The Trustee is concerned that the risks associated with climate change could have a materially detrimental impact on the Scheme’s investment returns – and its Sponsor covenant - within a relevant timeframe for the Scheme. The Trustee broadly defines this timeframe as the next c. 20 years – and, as such, the Trustee seeks to integrate assessments of climate change risk into its investment decisions. In assessing the Scheme’s climate change risk exposure, the Trustee considers these risks over the short (1-3 years), medium (4-10 years) and long (11-20+ years) term. Climate opportunities are evaluated over the same time horizons.
- The Trustee wants the Scheme’s investment portfolio to be resilient to the risks posed by the transition to a low carbon economy. As such, when assessing the impact of climate change on the Scheme’s investment strategy, the Trustee will seek to identify investment opportunities that have the potential to be resilient to climate change risks or that by embracing innovative technologies seize the chance to make long term gains arising from being leaders in the low carbon economy. This may include investments in low-carbon/ESG-tilted investments if these investment opportunities fit within the wider strategic objectives of the Scheme.

The Trustee believes that it should practically prepare for the risks associated with climate change. The Trustee will seek to understand the implications of actively engaging on climate change issues, which may include membership of industry groups and networks of like-minded investors. Where feasible and appropriate, the Trustee will work with the sponsoring employer to address these issues collectively.

- As a first step, the Trustee will formalise its climate change risk management framework, which will set out the Trustee’s processes for

identifying, understanding and managing climate change-related risks. The Trustee will review its climate change risk framework annually and will monitor progress against its objectives at least every six months and more frequently if required.

- The Trustee receives training – likely to be at least on an annual basis but more frequently if required – on climate issues to ensure that it has the appropriate degree of knowledge and understanding on these issues to support good decision-making. The Trustee expects its advisers to bring important and relevant climate-related issues and developments to the Trustee’s attention in a timely manner.

Role of the Investment Committee

The Trustee has delegated the day-to-day responsibility for the initial implementation of the Scheme’s climate change risk management framework to the Investment Committee (“IC”), which is a sub-committee of the Trustee.

The IC seeks to ensure that any investment decisions appropriately consider climate risks and opportunities within the context of the Scheme’s wider risk and return requirements and are consistent with the climate change policy as set out in the SIP and Responsible Investment policy.

The IC monitors and reviews progress against the Scheme’s climate change risk management approach on an annual basis and keeps the Trustee apprised of any material climate-related developments through regular (typically at least annual) updates.

Once the Scheme’s climate change risk management framework has been implemented, the IC will also be responsible for the ongoing monitoring and implementation of the framework.

Implementation is detailed later in this report, but key activities delegated to the IC include:

- considering investment opportunities which enhance the ESG and climate change focus of the Scheme’s investment portfolio.
- ensuring investment proposals address the impact of climate risks and opportunities.
- engaging with the Scheme’s fiduciary manager(s) and underlying investment managers to understand how climate risks are considered in their investment approach.
- working with the Scheme’s fiduciary manager(s) and underlying investment managers to disclose relevant climate metrics as set out in the TCFD recommendations.
- ensuring that stewardship activities are being undertaken appropriately on the Scheme’s behalf.

Role of the other advisers

- **Investment consultant:** for the first reporting year, Aon, provided strategic and practical support to the IC and Trustee in respect of the management of climate risks and opportunities, ensuring compliance with the recommendations set out by the TCFD. This included provision of regular training and updates on climate-related issues and climate change scenario modelling that enabled the IC and Trustee to assess the Scheme’s exposure to climate risks.

Trustee’s update

During the year, the Trustee received training on the regulatory changes occurring in 2022, and how this would impact the Scheme. The training covered the introduction of new climate-related risk metrics, including the portfolio alignment metric and changes to the additional climate metrics.

The purpose of this training was to better equip the Trustee ahead of the preparation of its first TCFD report.

- **Scheme Actuary:** the Scheme Actuary, David Eteen, will help the Trustee assess the potential impact of climate change risk on the Scheme's funding assumptions.
- **Fiduciary Manager(s):** the Scheme's fiduciary manager(s), will help the Trustee understand how it and the underlying managers consider climate change risk in their investment approach. The Scheme's fiduciary manager(s) are also responsible for the implementation of climate-related opportunities, where appropriate.
- **Covenant advisor:** the Trustee's covenant advisor, RSM Restructuring Advisory LLP ("RSM"), will help the Trustee understand the potential impact of climate change risk on the Sponsor covenant.



Strategy

Assessing climate risks and opportunities

Assessing the climate risks and opportunities the Scheme is exposed to is key to understanding the impact climate change could have on the Scheme in the future.

The Trustee has carried out a qualitative risk assessment of each asset class the Scheme is invested in. From this the Trustee has identified which the climate risks and opportunities could have a material impact on the Scheme.

The Scheme's investment portfolio is diversified across a range of different asset classes including equities, fixed income, property, illiquid assets, gilts and private equity. Given the number of strategies used in the Scheme's portfolio, the Trustee has completed this exercise to the best of its ability and focused on the most material holdings. The Trustee received detailed responses from three of its investment managers and its two fiduciary managers. At the time of writing, four managers were not able to provide information for the risk assessment, or only able to provide limited details. Some managers have been excluded from this analysis on the grounds of materiality.



Risk categories

In the analysis, the climate risks have been categorised into physical and transition risks.

Transition risks are associated with the transition towards a low-carbon economy. For example, shifts in policy, technology or supply and demand in certain sectors.

Physical risks are associated with the physical impacts of climate change on companies' operations. For example, extreme temperatures, floods, storms or wildfires.



Ratings

The analysis uses a RAG (**R**ed, **A**mber, **G**reen) rating system where:

Red denotes a high level of financial exposure to a risk.

Amber denotes a medium level of financial exposure to a risk.

Green denotes a low level of financial exposure to a risk.



Time horizons

The Trustee assessed the climate risks and opportunities over multiple time horizons. The Trustee has decided the most appropriate time horizons for the Scheme are:

- short term: 1-3 years.
- medium term: 4-10 years
- long term: 11-20+ years

When deciding the relevant time horizons, the Trustee has taken into account the liabilities of the Scheme and its obligations to pay benefits.

Climate risk assessment

UK Property (10%¹ of the Scheme's assets as at 31 March 2023)

Time horizon	Physical risks		Transition risks			
	Acute	Chronic	Regulatory	Technology	Market	Reputation
Short	A	A	A	A	A	A
Medium	A	A	A	A	A	A
Long	A	A	R	A	A	A

Physical risks

The managers recognise the progressive nature of chronic physical climate-related risks, particularly concerning heat and water. In the medium term, exposure to acute physical risks is predominately through flooding, including fluvial, pluvial and flash flooding.

Transition risks

Regulatory risk has been rated Red because 2050 is recognised as a key date for achieving net zero carbon emissions across the UK and the risks associated with building-related policy and legislation around this are largely unknown at present.

A market transition risk identified is the increase in energy prices which could cause an increase in total occupational costs for tenants and negatively impact rental levels. This can be mitigated by better equipping buildings to use less power.

Opportunistic Property (4% of the Scheme's assets as at 31 March 2023)

Time horizon	Physical risks		Transition risks			
	Acute	Chronic	Regulatory	Technology	Market	Reputation
Short	R	A	R	A	A	A
Medium	A	G	A	G	G	A
Long	G	G	G	G	G	A

Physical risks

Sudden weather/climate events that are unprepared for will have a high financial impact in the short term. Flood risks comprise the main chronic physical risk in the UK and care is taken by the managers to understand exposure to this during the acquisition process. In the long term, it is believed that there would be a limited impact on Opportunistic Property where assets are bought and sold over a 3-7 year period.

¹ Asset percentages are based on the Scheme's uninsured assets i.e. it excludes the annuity policies.

Transition risks

In the short term, there is a high risk of new legislation enforcing significant capital expenditure on assets that do not comply with the latest energy efficiency standards. At all time horizons, there is reputational risk to managers with a poor track record of owning assets that fall in value due to climate risks, which could see low appetite from investors for future funds and joint ventures.

Delegated Mandates (48% of the Scheme's assets as at 31 March 2023)

The Scheme invests some of its assets with two fiduciary managers, Aon Investments Limited and Kempen Capital Management.

Aon Investment Limited ("AIL") (42% of the total assets as at 31 March 2023)

AIL carried out the analysis of climate risks and opportunities across short, medium and long terms in two climate scenarios. In the Orderly Transition scenario, immediate, coordinated action is taken to tackle climate change introducing carbon taxes and environmental regulation. In the No Transition scenario, no action is taken to tackle climate change leading to significant global warming. For more details on the climate scenarios, see page 15 of this report.

		Orderly Transition			No Transition		
		Short	Medium	Long	Short	Medium	Long
Equities	Developed Markets (DM)	A	G	G	A	A	R
	Emerging Markets (EM)	R	G	G	A	A	R
Fixed Income	Sovereigns – DM	A	G	G	A	A	R
	Sovereigns – EM	R	G	G	A	A	R
	Global Investment Grade credit	A	G	G	A	A	R
	Global High Yield credit	A	G	G	A	A	R
	Corporate Emerging Market Debt	A	G	G	A	A	R
	Asset backed securities	A	G	G	A	A	A
Liquid Alternatives	Insurance Linked Securities	G	G	G	A	R	R
Illiquid Alternatives	UK Property	A	G	G	A	A	A
	Private Equity	A	G	G	A	A	R

Orderly Transition

Transition risks will dominate in the short-term. An increase in carbon taxes and production costs caused by the rapid shift away from fossil fuels will lead to a sudden rise in inflation and increasing government bond yields. There will be widespread economic uncertainty and risk assets will perform poorly. Over time, the transition to low carbon technologies will boost growth and there will be higher returns prospects in the long-term.

In the long-term technology becomes a prominent risk, but it will also be a source of climate-related investment opportunities for most asset classes.

No Transition

Under a No Transition scenario, physical risks are expected to dominate. All asset classes will be affected in the short-term to an amber level, and this will become a red risk in the long-term. As the intensity of weather events increases, the risks to geographically vulnerable areas become particularly acute. In the worst cases, extreme weather events may cause damage that results in catastrophic failure and a dramatic reduction in the lifespan of some assets such as infrastructure and assets relying on physical infrastructure.

Kempen Capital Management (“Kempen”) (6% of the Scheme’s assets as at 31 March 2023)

Time horizon	Physical risks		Transition risks			
	Acute	Chronic	Regulatory	Technology	Market	Reputation
Short	G	G	G	G	G	G
Medium	G	G	A	G	G	A
Long	G	A	G	A	A	G

Physical risks

Kempen is aligning its broader portfolio to be Paris-aligned by 2030. As a result of these changes, the manager believes this reduces the impact of the physical risks, and will remove the expected amber on the physical (chronic) risk currently forecast for the long term.

Transition risks

Kempen believes that neither technology nor market risks are present in the short- or medium-term. However, in the long-term, Kempen believes that the portfolio’s legacy infrastructure will be subject to technology risk. In terms of regulatory and reputation risk, Kempen believes the risks are at a medium level due to the portfolio’s exposure to China, but this investment is likely be removed in the long-term as de-risking occurs. The manager expects there to be an increase in the take up of carbon pricing, which will affect equities and corporate bonds globally. Due to the uncertainty of how fast and how high carbon pricing is raised, the transition risk is set to a medium level.

Private Equity (7% of the Scheme’s assets as at 31 March 2023)

The private equity managers were not able to provide the climate risks and opportunities RAG assessment, however they did demonstrate general awareness of climate issues and commented on how climate risks and opportunities are incorporated within their funds.

Climate-related opportunities

Based on an analysis of the Scheme's assets, a number of key areas have been identified as opportunities for the Scheme and its investments by the Trustee's investment managers:

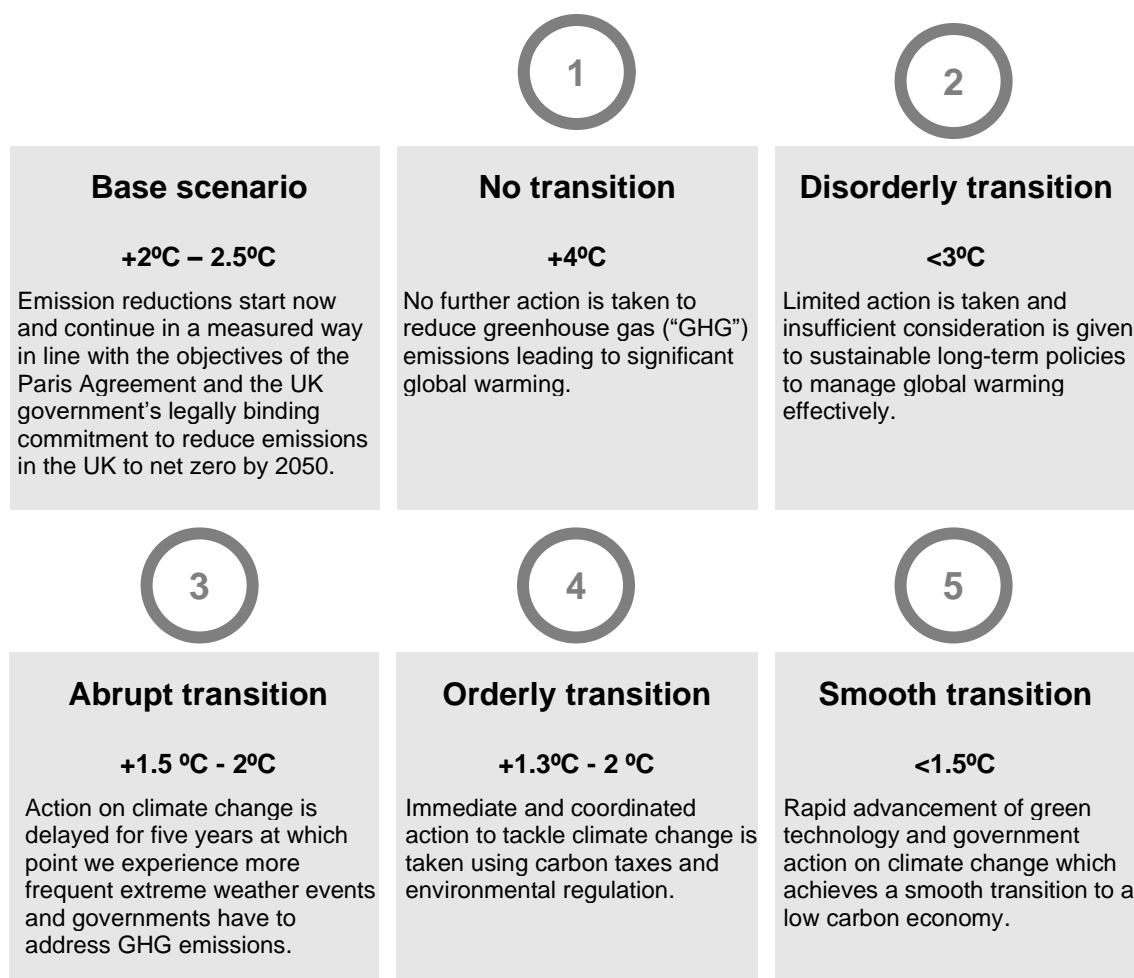
- UK Green government bonds which provide an opportunity to finance green initiatives.
- Investment opportunities in companies that are transitioning to a low carbon economy or generating revenues from climate change solutions such as renewable energy, energy efficiency, electric vehicles and the circular economy.
- Within property, actively engaging with tenants to improve building performance. This will mitigate transition risks associated with property investments.
- Retrofitting older properties with new technology to enhance energy efficiency.
- Integrating the United Nation Sustainable Development Goals explicitly within the investment strategy of the managers' funds.

Portfolio resilience and scenario analysis

The Trustee has undertaken a climate change scenario analysis (as at 31 March 2022) to better understand the impact climate change could have on the Scheme’s assets and liabilities.

The analysis looks at five climate change scenarios. Each scenario considers what might happen when transitioning to a low carbon economy under different conditions. The Trustee has chosen these scenarios because it believes that they provide a reasonable range of possible climate change outcomes. These scenarios were developed by Aon and are based on detailed assumptions. They are only illustrative and are subject to considerable uncertainty.

Aon established a “base case” scenario against which the five climate change scenarios are compared.



Impact Assessment

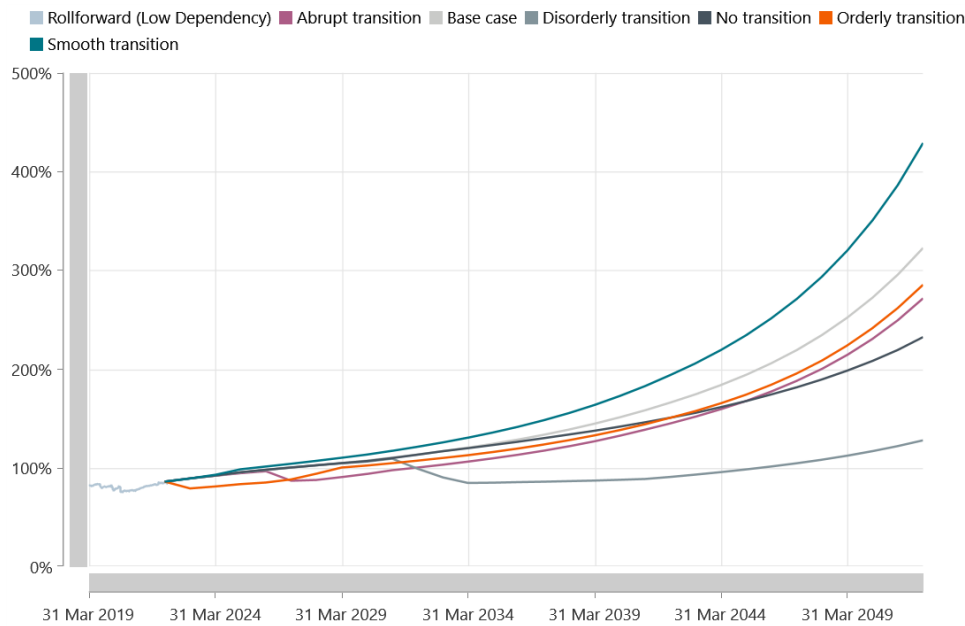
The Trustee carried out the analysis to assess the effect of climate risks under two options: a) assuming current asset portfolio with no de-risking; and b) assuming portfolio allocation with a de-risking flightplan. The analysis was carried out on total uninsured assets, excluding buy in assets.

A) Impact on funding level assuming no de-risking

The Scheme's investment portfolio exhibits reasonable resilience under all the climate scenarios. This is due to the diversification of assets and high levels of hedging against changes in interest rates and inflation.

The worst-case scenario for the Scheme is the Disorderly Transition. Although initially the funding level improves in line with the base case, after 10 years the funding level deteriorates sharply and only recovers to 100% funded around 25 years into the modelling period. This leaves the Scheme materially worse off in terms of surplus relative to the base case.

Funding level projections under each climate scenario*



Source: Aon. Scenario projections as at 31 March 2022. Assuming the current asset portfolio. No allowance has been made for de-risking in the projections.

What does the chart show?

The chart shows what might happen to the Scheme's funding level under each climate scenario up to 30 years into the future. Each line represents a different scenario.

The funding level is a measure of how much surplus assets (or deficit) the Scheme has above the cost of the pension liabilities.

Depending on the scenario, the funding level increases more or less. Under some scenarios the funding level experiences sudden falls.

B) Impact on funding level with de-risking flightplan

The alternative modelling allowing for the Scheme's de-risking flightplan also exhibits reasonable resilience under all the climate scenarios considered. As this portfolio has a lower allocation to risk assets, the fall in funding level experienced under the Disorderly Transition scenario is expected to be less than in the modelling where no allowance is made for the de-risking flightplan.

As the outcomes are similar, the Trustee is comfortable that the narrative above remains appropriate.

Business, strategy, and financial planning

The Trustee recognises the importance of climate change and the risk it poses to the Scheme. The Trustee takes climate-related risks into account in determining its investment strategy.

Another key risk is volatility of the funding level. Under the Abrupt and Orderly Transition scenarios, the Scheme experiences large falls in the funding level of around 7-10% before recovering.

Deterioration of the funding level will place a strain on the Sponsor covenant as the Sponsor may have to make up a bigger shortfall through deficit contributions. It may also require the Scheme to re-risk in order to stay on track to achieve the funding target or extend the timeframe for achieving this.

The Trustee therefore recognises that climate change may have an impact on the Employer covenant. The Trustee monitors the covenant on a regular basis, with the support of its covenant adviser, and maintains a regular dialogue with the Employer.



Risk management

Our process for identifying and assessing climate risks

The Trustee has established a process to identify, assess and manage the climate risks that are relevant to the Scheme. This is part of the Scheme's wider risk management framework and is how the Trustee monitors the most significant risks to the Scheme in its efforts to achieve appropriate outcomes for members.



Qualitative assessment

The first element is a qualitative assessment of climate risks and opportunities which is prepared by the Trustee's investment consultant and reviewed by the Trustee.



Quantitative analysis

The second element is quantitative in nature and is delivered by means of climate change scenario analysis, which is provided by the Trustee's investment consultant and reviewed by the Trustee.

Together these elements give the Trustee a clear picture of the climate risks that the Scheme is exposed to. Where appropriate, the Trustee distinguishes between transition and physical risks. And all risks and opportunities are assessed with reference to the time horizons that the Trustee has identified as relevant to the Scheme.

When prioritising the management of risks, the Trustee assesses the materiality of climate risks relative to the impact and likelihood of other risks to the Scheme. This helps the Trustee focus on the risks that pose the most significant impact.

Our process for managing climate risks

The Trustee recognises the long-term risks posed by climate change and has taken steps to integrate climate risks into the Scheme’s risk management framework.

The Trustee has developed a climate risk management framework to manage the climate risks and opportunities. The risk management plan clearly sets out on who is involved, what is done and how often. The Trustee has delegated a number of key tasks but retains the ultimate responsibility. The processes for managing climate risks and opportunities are summarised in the tables below.

Governance

Activity	Action	Owner	Input	Frequency of review
Framework	Approve climate risk management framework	Trustee	IC	One off
Training	Receive training on climate-related issues	Trustee	Advisors	Annual
Advisers	Review advisor objectives to ensure advisors have appropriate climate capability, and bring important, relevant and timely climate-related issues to the Trustee’s attention	Trustee	Advisors	Annual
Investment strategy	Ensure investment proposals explicitly consider the impact of climate risks and opportunities and seek investment opportunities.	IC	Investment advisor	Ongoing
Actuarial and covenant	Ensure that actuarial and covenant advice adequately incorporate climate-related risk factors where they are relevant and material.	Trustee	Scheme Actuary, Covenant advisor	Triennial
Managers	Engage with the investment managers to understand how climate risks are considered in their investment approach, and stewardship activities are being undertaken appropriately	IC	Fund managers, Investment advisor	Annual
Framework	Approve climate risk management framework	Trustee	IC	One off

Trustee update

The Trustee monitors the above activities as part of its climate related risks and opportunities management. The Trustee has monitored progress of the IC and its respective implementation of the climate change governance framework through the year, receiving regular updates from the IC and querying information as and when required.

The Trustee has received training during the year on the regulatory changes occurring in 2022, and how this would impact the Scheme. The training covered the introduction of new climate risk metrics, including the portfolio alignment metrics and changes to the additional climate metrics. The purpose of this training was to better equip the Trustee ahead of the preparation of its first TCFD report.

Strategy

Activity	Action	Owner	Input	Frequency of review
Climate Scenarios	Undertake quantitative scenario analysis to understand the impact of climate risks	IC	Investment advisor	First year, Triennial thereafter*
Risks and opportunities	Identify the climate risks and opportunities for investment & funding strategy and assess their likelihood and impact.	IC	Advisors	Annual

*Unless there are significant changes that warrant updated analysis.

Trustee update

The Trustee has spent dedicated time throughout the year to analyse climate related risks and opportunities for the asset classes in which it invests. This was done through a qualitative assessment of the investment manager's climate risks and opportunities integration within their investment strategies, and a quantitative assessment of how the Scheme's assets and liabilities are affected under various deterministic climate scenarios. This is discussed in detail in the Strategy section.

Risk Management

Activity	Action	Owner	Input	Frequency of review
Risk prioritisation	Consider the prioritisation of those climate risks, and the management of the most significant in terms of potential loss and likelihood.	IC	Advisors	Annual
Scheme documentation	Include consideration of climate risks in the Scheme's other risk processes and documents, such as the risk register and the SIP, and regularly review these.	IC	Advisors	One-off, ongoing thereafter
Covenant	Seek to understand the climate risks to the employer over the short, medium and long term.	Trustee	Covenant advisor	Annual

Trustee update

The Trustee reviews its process of identifying and assessing climate related risks as part of the annual TCFD process. This is integrated into the ongoing activities of the Scheme, including the appointment of any new funds and monitoring of existing funds.

The Trustee requests that investment managers provide their responsible investment policies; details of how ESG is integrated within their decision-making process, including climate change; and details of outstanding ESG issues within portfolios. This is driven by the Scheme completing its Engagement Policy Implementation Statement, where the Trustee collects data from its managers in relation to their voting and engagement policies. It also asks for details how these have been implemented in practice, including key themes for engagement, including climate change.

Metrics and Targets

Activity	Action	Owner	Input	Frequency of review
Metrics	Obtain data for metrics	IC	Investment advisor, fund managers	Annual
Targets	Review continued appropriateness of metrics	IC	Investment advisor	Annual

Trustee update

The Trustee collected metrics data for the Scheme's assets in order to understand the current state of the portfolio regarding its emissions, data quality and portfolio alignment metric. This data is evaluated in order to produce a metrics related target, whereby in this instance the Trustee has opted for the Data Quality, and in particular, improving the coverage of data.

Metrics collection has been carried out in line with industry practice and supported by the IC and its advisors. Following training from its advisers, the Trustee agreed an additional metric for reporting, as per changes to the Regulations. More detail can be found in the Metrics and Targets section.

Assessment of investment managers

As part of the assessment of the investment managers' policies and processes to assess climate risks, the Trustee has posed "top" questions as outlined in guidance from the Pensions Climate Risk Industry Group² to its investment managers and fiduciary managers. The questions were designed to assist the Trustee with its assessment of each managers' capabilities and approach to climate management and focused on areas such as TCFD reporting, managers' ability to conduct climate scenario analysis, engagement and escalation policies, managers' ability to provide carbon related data and align their strategies to a particular temperature level.


The table below summarises the responses from the Scheme's investment managers.

² Aligning your pension scheme with the Taskforce on Climate-Related Financial Disclosures recommendations - GOV.UK (www.gov.uk)

Manager	Produces TCFD report	Conducts climate-related risks analysis	Participates in industry initiatives	Provides carbon reporting	Has temperature alignment strategies
Threadneedle	In progress	✓	-	✓	-
Clearbell	In progress	-	-	✓	-
BlackRock	✓	✓	✓	✓	-
Warburg Pincus	-	In progress	-	✓	-
Blackstone	In progress	In progress	✓	In progress	-
Ares	-	In progress	In progress	In progress	-
LGIM	✓	✓	✓	✓	-
AIL Delegated Mandate	In progress	✓	✓	✓	✓
Kempen Capital Management	✓	✓	✓	✓	In progress

Source: Managers, AIL, Kempen.

The Trustee will engage with its managers to understand future changes to the management of the Scheme's assets, including the integration of climate risk analysis, improvements in carbon reporting and temperature alignment and the associated timescales involved with these.



Metrics and Targets

The Trustee's climate metrics

The Trustee uses some quantitative measures to help it understand and monitor the Scheme's exposure to climate risks. Measuring greenhouse gas emissions is a keyway for pension schemes to assess their exposure to climate change.

Greenhouse gases are produced by burning fossil fuels, meat and dairy farming, and some industrial processes. When greenhouse gases are released into the atmosphere, they trap heat in the atmosphere causing global warming and contributing to climate change.

Greenhouse gases are categorised into three types or 'scopes' by the Greenhouse Gas Protocol, the world's most used greenhouse gas accounting standard.

Scope 1

All direct emissions from the activities of an organisation which are under their control; these typically include emissions from their own buildings, facilities and vehicles

Scope 2

These are the indirect emissions from the generation of electricity purchased and used by an organisation

Scope 3

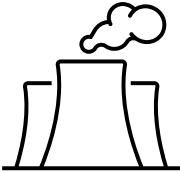
All other indirect emissions linked to the wider supply chain and activities of the organisation from outside its own operations – from the goods it purchases to the disposal of the products it sells

Currently, only Scopes 1 and 2 GHG emissions need to be reported but this does not include all the GHG emissions associated with the Scheme's investments.

Scope 3 emissions are often the largest proportion of an organisation's emissions, but they are also the hardest to measure. The complexity and global nature of an organisation's value chain make it hard to collect accurate data. Reporting on Scope 3 emissions will be a regulatory requirement to report on in the second year of reporting for the Scheme.

Our climate metrics

On the Trustee's behalf, Aon collected information from the Scheme's managers on their greenhouse gas emissions. Aon collated this information to calculate the following climate metrics for the Scheme's investable asset portfolio. The metrics do not include emissions associated with the Scheme's annuity policy as the annuity providers were unable to provide this information at the time of writing.



Total Greenhouse Gas emissions (Scopes 1 & 2)

191,930
tCO₂e

The total greenhouse gas (GHG) emissions associated with the portfolio. It is an absolute measure of carbon output from the Plan's investments and is measured in tonnes of carbon dioxide equivalent (tCO₂e).



Carbon footprint

155
tCO₂e/£m

Carbon footprint is an intensity measure of emissions that takes the total GHG emissions and weights it to take account of the size of the investment made. It is measured in tonnes of carbon dioxide equivalent per million pounds invested (tCO₂e/£m).



Data quality

60%

A measure of the proportion of the portfolio that the Trustee has high quality data for (i.e., data which is based on verified, reported, or reasonably estimated emissions, versus that which is unavailable). This has been selected on the basis that it provides a consistent and comparable measure of the level of confidence in the data.



Binary target measurement

25%

A metric which shows how much of the Scheme's assets are aligned with a climate change goal of limiting the increase in the global average temperature to 1.5°C above pre-industrial levels.

It is measured as the percentage of underlying portfolio investments with a declared net-zero or Paris-aligned target.

Source: Aon. Investment Managers. Data is at 31 December 2022 unless specified otherwise.

Detailed breakdown

The tables below show a more detailed breakdown of the metrics from each asset class in the Scheme's investable assets (where available).

Asset class	Asset Allocation	Data quality	Carbon footprint (tCO ₂ e/£m invested)	Total GHG (tCO ₂ e) (Scope 1 & 2)	Binary Target Measurement
AIL Delegated Mandate	59%	58%	205	151,980	38%
Illiquids	15%	36%	222	15,548	5%
Core Property	10%	92%	3	734	4%
Cashflow Matching (LGIM gilts)	9%	85%	58	14,346	1%
Kempen Delegated Mandate	7%	30%	57	9,321	Unavailable
Return Seeking Assets	>1%	Excluded on the basis of materiality			
Total (excluding buy-in)	100%	60%	155	191,930	25%
Bulk Annuity*				Unavailable	

Source: Investment managers / Aon. Data as at 31 December 2021 unless specified otherwise.

*Bulk annuity made c. 19% of the total Scheme's AUM as at 31 December 2021.

1. Data for the cashflow matching portfolio was provided directly by the manager as at 30 June 2022.

2. A manager within the core property portfolio provided data as at 30 September 2021.

Some emissions data is missing as not all the Scheme's managers were able to provide data. Also, the emissions data only includes scopes 1 and 2 emissions. So the reported emissions metrics do not fully reflect all the GHG emissions associated with the Scheme's investments. Scope 3 emissions will be included in next year's report. It is expected that the Scheme's reported emissions will increase in the future, as more managers become able to provide emissions data, and as scope 3 data becomes more widely available

AIL's Delegated Mandate contributes the most to the Scheme's total emissions as well as being the biggest proportion of the Scheme's assets. AIL's emissions are primarily driven by the Scheme's investments in UK government bonds. AIL relied on the Scope 1 and 2 GHG provisional emissions published by the UK government for 2021 (i.e., 424.5M tCO₂e), the AA's physical gilts exposure with Insight and Schroders (valued at £186M and £44M respectively as at 31 December 2021) and the total market value of issued gilts (i.e., £3,159,205M as at 31 December 2021). AIL excluded any synthetic exposures and only considered exposures to physical gilts in the calculations.

Carbon footprint for the illiquids was driven by a Debt Investment Opportunities Fund which was the third largest allocation within the private credit asset class. The emissions data was estimated by the manager using a proprietary tool "Carbonator" (and, in a small number of cases, using MSCI data). The manager acknowledged that the estimation tool tends to distort carbon intensity results since some underlying investments do not generate revenue until they are completed, and commented that work is underway to address this limitation.

The Trustee has been able to obtain reasonable quality data for c. 60% of its total assets (excluding bulk annuity). The data obtained was either available for the underlying securities or reasonably estimated by the investment managers.

Notes on the metrics data

Aon requested data from all the Scheme’s managers except for Mesirow, Insight, Quellos, Key Haven, GAM Investments and Bluebay who were excluded given the small size of the investment in each.

13 of the 20 managers (excluding annuity providers) requested were able to provide emissions data. BV Partners, Blackstone, Clearbell regarding Fund IV, DRC, Ares, Taconic Partners, York Capital, CVC were unable to provide data at the time of writing time.

Both annuity providers, Canada Life and Just Group, were also unable to provide data when the report was produced. Aon did not make any estimates for the missing data.

The Trustee expects that in the future better information will be available from managers and this improvement will be reflected in the coming years’ reporting.

Notes on the metrics calculations

The Trustee notes that there is not yet an agreed industry-wide standard for calculating some of the metrics and hence different managers may use different methods and assumptions when providing data to the Trustee.

These issues are common across the industry at the current time and highlight the importance of TCFD-aligned reporting to improve transparency. The Trustee expects that in the future more consistent information will be available from managers as the industry aligns to expectations and best practice standards.

The carbon metrics

Aon calculated the carbon metrics for the Scheme based on the information provided by the managers. The table below shows for each asset class the broad approach used for calculating each metric.

Asset Class	Approach
Cashflow Matching	The manager provided the carbon footprint of each fund in the cashflow matching portfolio. Aon calculated the Scheme’s share of the fund’s total emissions by applying the carbon footprint to the Trustee’s share of invested capital in the pooled fund. (i.e. <i>carbon footprint x £m Scheme assets invested in the fund</i>)
Core Property	The managers provided carbon footprints for their respective funds. Aon calculated the Scheme’s share of the fund’s total emissions by applying the carbon footprint to the Trustee’s share of invested capital in the pooled fund. (i.e. <i>carbon footprint x £m Scheme assets invested in the fund</i>)
Illiquids	Where total fund emissions were provided, Aon calculated the carbon footprint for the fund: $\text{Fund carbon footprint} = \frac{\text{fund emissions}}{\text{fund's assets under management (£)}}$ <p>Then Aon calculated the Scheme’s share of the fund’s total emissions by applying the carbon footprint to the Trustee’s share of invested capital in the pooled fund. (i.e. <i>carbon footprint x £m Scheme assets invested in the fund</i>).</p>
Kempen Delegated Mandate	The manager provided carbon footprint and the total emissions for its portfolio in the CET format.
AIL Delegated Mandate	The manager provided carbon footprint and the total emissions for its portfolio. AIL’s carbon footprint is an estimate based on incomplete data. Where there is low data coverage, it is likely to be a poor estimate. Where data coverage is less than 100%, and where appropriate, AIL adopted an approach

How we collected the data

Aon collected the carbon emissions data from our managers on the Trustee’s behalf using the industry standard Carbon Emissions Template (“CET”)¹. The CET was developed by a joint industry initiative of the Pension and Life Savings Association, the Association of British Insurers and Investment Association Working Group.

The CET provides a standardised set of data to help pension schemes meet their obligations under the Climate Change Governance and Reporting Regulations, and associated DWP Statutory Guidance.

Asset Class	Approach
	which divides by the investment amount for which data is available, rather than the total amount invested. This may significantly overstate or understate the true value of the metric. As data coverage increases, the reported value of the metric may change, and in some cases significantly. AIL notes that this methodology may not have been employed by other managers.

Binary target measurement

Aon calculated the binary target measurement for the Scheme based on the information provided by the managers. Aon requested the binary target measurement of each fund from our investment managers and aggregated the results based on the portion of assets invested in each fund.

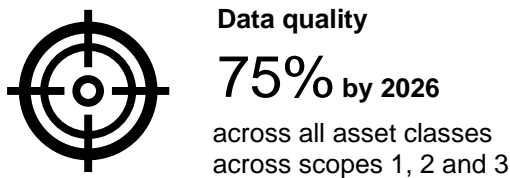
Aon does not make any estimates for missing data. The Scheme's binary target measurement only represents the portion of the portfolio (c. 66% of the Scheme's uninsured assets (i.e. excluding annuity) for which we have data.

Looking to the future

Trustee's climate target

Climate targets help the Trustee track its efforts to manage the scheme's climate-change risk exposure.

The Trustee has set a target for improving the data quality metric. Without meaningful data from the investment managers, it is very hard for the Trustee to measure its climate-risk exposure. So, it is important to set a target to improve the quality of GHG emissions data from the managers. Based on the observation of data quality summarised in the previous section, the Trustee has agreed to set the following data quality target for its Scheme's assets:



The Scheme's performance against the target will be measured and reported on every year. Over time, this will show the Scheme's progress against the target.

What is the Trustee doing to reach the target?

To reach the target, the Trustee will engage with the managers directly, or through its investment consultant and fiduciary manager(s), to request higher data availability and coverage for the mandates. Through engagement, it is expected that this will identify opportunities to improve coverage, or investigate alternative sources of data, as well as challenges in sourcing meaningful metrics.



Appendices

Glossary

- Governance** refers to the system by which an organisation is directed and controlled in the interests of shareholders and other stakeholders.³ Governance involves a set of relationships between an organisation's management, its board, its shareholders, and other stakeholders. Governance provides the structure and processes through which the objectives of the organisation are set, progress against performance is monitored, and results are evaluated.⁴
- Strategy** refers to an organisation's desired future state. An organisation's strategy establishes a foundation against which it can monitor and measure its progress in reaching that desired state. Strategy formulation generally involves establishing the purpose and scope of the organisation's activities and the nature of its businesses, taking into account the risks and opportunities it faces and the environment in which it operates.⁵
- Risk management** refers to a set of processes that are carried out by an organisation's board and management to support the achievement of the organisation's objectives by addressing its risks and managing the combined potential impact of those risks.
- Climate risk** refers to the potential negative impacts of climate change on an organisation. Physical risks emanating from climate change can be event-driven (acute) such as increased severity of extreme weather events (e.g., cyclones, droughts, floods, and fires). They can also relate to longer-term shifts (chronic) in precipitation and temperature and increased variability in weather patterns (e.g., sea level rise). Climate risks can also be associated with the transition to a lower-carbon global economy, the most common of which relate to policy and legal actions, technology changes, market responses, and reputational considerations.
- Climate-related opportunity** refers to the potential positive impacts related to climate change on an organisation. Efforts to mitigate and adapt to climate change can produce opportunities for organisations, such as through resource efficiency and cost savings, the adoption and utilization of low-emission energy sources, the development of new products and services, and building resilience along the supply chain. Climate-related opportunities will vary depending on the region, market, and industry in which an organisation operates.

³ A. Cadbury, [Report of the Committee on the Financial Aspects of Corporate Governance](#), London, 1992.

⁴ OECD, [G20/OECD Principles of Corporate Governance](#), OECD Publishing, Paris, 2015.

⁵ TCFD, [Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2017

Greenhouse gas emissions (“GHG”) scope levels⁶	<p>Greenhouse gases are categorised into three types or ‘scopes’ by the Greenhouse Gas Protocol, the world’s most used greenhouse gas accounting standard.</p> <p>Scope 1 refers to all direct GHG emissions.</p> <p>Scope 2 refers to indirect GHG emissions from consumption of purchased electricity, heat, or steam.</p> <p>Scope 3 refers to other indirect emissions not covered in Scope 2 that occur in the value chain of the reporting company, including both upstream and downstream emissions. Scope 3 emissions could include: the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g., transmission and distribution losses), outsourced activities, and waste disposal.⁷</p>
Value chain	<p>refers to the upstream and downstream life cycle of a product, process, or service, including material sourcing, production, consumption, and disposal/recycling. Upstream activities include operations that relate to the initial stages of producing a good or service (e.g., material sourcing, material processing, supplier activities). Downstream activities include operations that relate to processing the materials into a finished product and delivering it to the end user (e.g., transportation, distribution, and consumption).⁸</p>
Climate scenario analysis	<p>is a process for identifying and assessing a potential range of outcomes of future events under conditions of uncertainty. In the case of climate change, for example, scenarios allow an organisation to explore and develop an understanding of how the physical and transition risks of climate change may impact its businesses, strategies, and financial performance over time.⁹</p>
Net zero	<p>means achieving a balance between the greenhouse gases emitted into the atmosphere, and those removed from it. This balance – or net zero – will happen when the amount of greenhouse gases add to the atmosphere is no more than the amount removed.¹⁰</p>

⁶ World Resources Institute and World Business Council for Sustainable Development, [The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard \(Revised Edition\)](#), March 2004.

⁷ PCC, [Climate Change 2014 Mitigation of Climate Change](#), Cambridge University Press, 2014.

⁸ TCFD, [Recommendations of the Task Force on Climate-related Financial Disclosures](#), 2017

⁹ Ibid

¹⁰ Energy Saving Trust, [What is net zero and how can we get there? - Energy Saving Trust](#), October 2021

Appendix – climate scenario modelling assumptions

The purpose of the climate scenario modelling is to consider the impact of climate risks on the Scheme's assets and liabilities over the long-term. In particular, the model considers different climate change scenarios and the approximate impact on asset/liability values over the long-term.

The scenario modelling assumes a deterministic projection of assets and liabilities on the self-sufficiency basis, using standard actuarial techniques to discount and project the Scheme's expected future cashflows.

- It models the full yield curve as this allows for an accurate treatment of the liabilities and realistic modelling of the future distribution of interest rates and inflation. It also allows us to truly assess the sensitivities of the assets and liabilities to changes in interest and inflation rates.
- The parameters in the model vary deterministically with the different scenarios.

The liability update and projections are considered appropriate for the analysis. However, they are approximate, and a full actuarial valuation carried out at the same date may produce a materially different result. The liability update and projections are not formal actuarial advice and do not contain all the information you need to make a decision on the contributions payable or investment strategy.

The model intends to illustrate the climate risks the Scheme is currently exposed to, highlighting areas where risk mitigation could be achieved through changing the portfolio allocation. Other relevant issues such as governance, costs and implementation (including manager selection and due diligence) must be considered when making changes to the investment strategy.

Investment risk is only captured in the deviance from the Base Case, but this is not the only risk that the Scheme faces; other risks include covenant risk, longevity risk, timing of member options, basis risks and operational risks.

The model has been set up to capture recent market conditions and views; the model may propose different solutions for the same strategy under different market conditions.

Key Modelling Assumptions

	Temperature risk by 2100	Reach net zero by	Carbon price (2030/2050)	Introduction of environmental regulation
No transition	+4°C	After 2050	\$40 / \$50	None
Disorderly transition	< 3°C	After 2050	\$65 / \$340	Late and Aggressive
Abrupt transition	1.5°C - 2°C	2050	\$135 / \$280	Aggressive
Orderly transition	1.3°C - 2°C	2050	\$100 / \$215	Coordinated
Smooth transition	<1.5°C	2050	\$80 / \$165	High Coordination

Source: Aon.

The Trustee undertook the analysis based on the following Scheme's position:

Values excluding buy-in	31 March 2022
Assets	£2.04Bn
Self-Sufficiency liabilities	£2.38Bn

Source: Aon.

Appendix – Greenhouse gas emissions in more detail







Greenhouse gases in the atmosphere, including water vapour, carbon dioxide, methane, and nitrous oxide, keep the Earth's surface and atmosphere warm because they absorb sunlight and re-emit it as heat in all directions including back down to Earth. Adding more greenhouse gases to the atmosphere makes it even more effective at preventing heat from leaving the Earth's atmosphere.

Greenhouse gases are vital because they act like a blanket around the Earth making it the climate habitable. The problem is that human activity is making the blanket "thicker". For example, when we burn coal, oil, and natural gas we send huge amounts of carbon dioxide into the air. When we destroy forests, the carbon stored in the trees escapes to the atmosphere. Other basic activities, such as raising cattle and planting rice, emit methane, nitrous oxide, and other greenhouse gases.

The amount of greenhouse gases in the atmosphere has significantly increased since the Industrial Revolution. The Kyoto Protocol¹¹ identifies six greenhouse gases which human activity is largely responsible for emitting. Of these six gases, human-made carbon dioxide is the biggest contributor to global warming.

Each greenhouse gas has a different global warming potential and persists for a different length of time in the atmosphere. Therefore, emissions are expressed as a carbon dioxide equivalent (CO₂e). This enables the different gases to be compared on a like-for-like bases, relative to one unit of carbon dioxide.

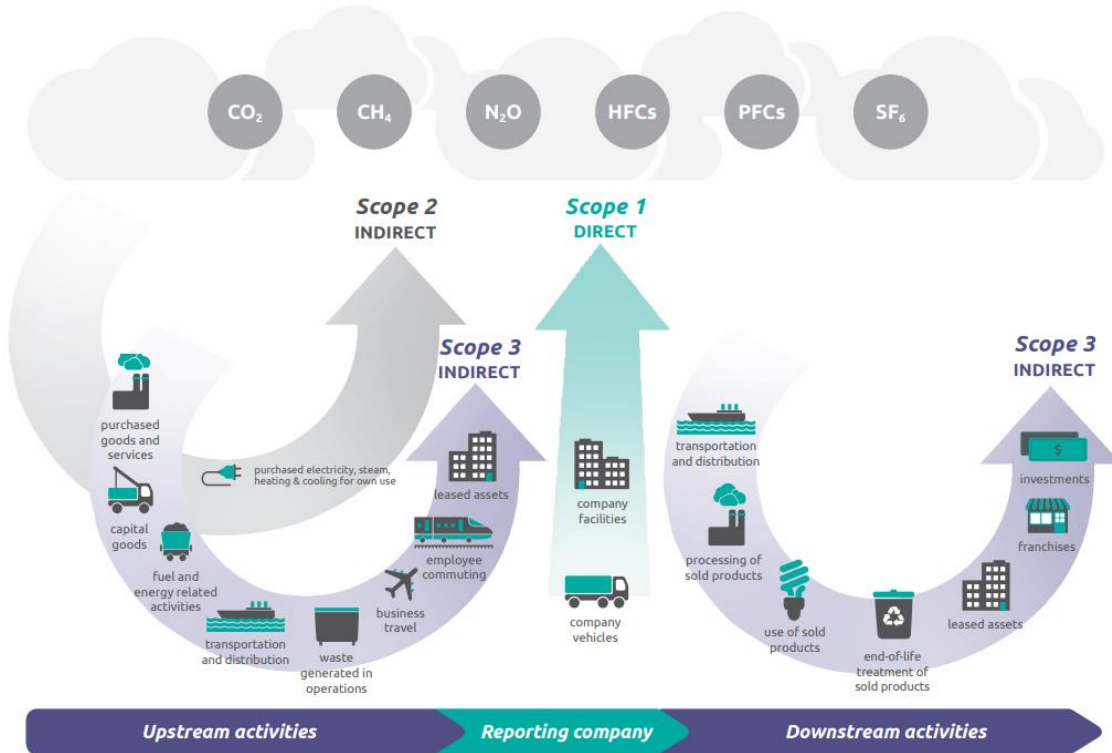
Six main greenhouse gases identified by the Kyoto Protocol

					
Carbon dioxide	Methane	Nitrous oxide	Hydro-fluorocarbons	Per-fluorocarbons	Sulphur hexafluoride
CO ₂	CH ₄	N ₂ O	HFCs	PFCs	SF ₆

¹¹ https://unfccc.int/kyoto_protocol

Greenhouse gases are categorised into three types or 'scopes' by the Greenhouse Gas Protocol, the world's most used greenhouse gas accounting standard.

Overview of GHG Protocol scopes and emissions across the value chain



Source: Greenhouse Gas Protocol, [Corporate value chain \(scope 3\) Accounting and Reporting Standard](#), 2011