



Climate change in focus

As extreme weather events make global headlines and scientists warn about a shifting climate, more investors are thinking about environmental risks and how these might affect their portfolios.

As one of the defining challenges of this generation, climate change is not just an environmental concern, but also an economic one. Every year, more and more people around the world feel its effects through recurring extreme weather events that harm life and property and dislocate populations. Already, it's changing how businesses operate, governments regulate, and individuals consume.

Below are some of the significant risks associated with climate change and how investors can play a role in mitigating them through their portfolio investments.

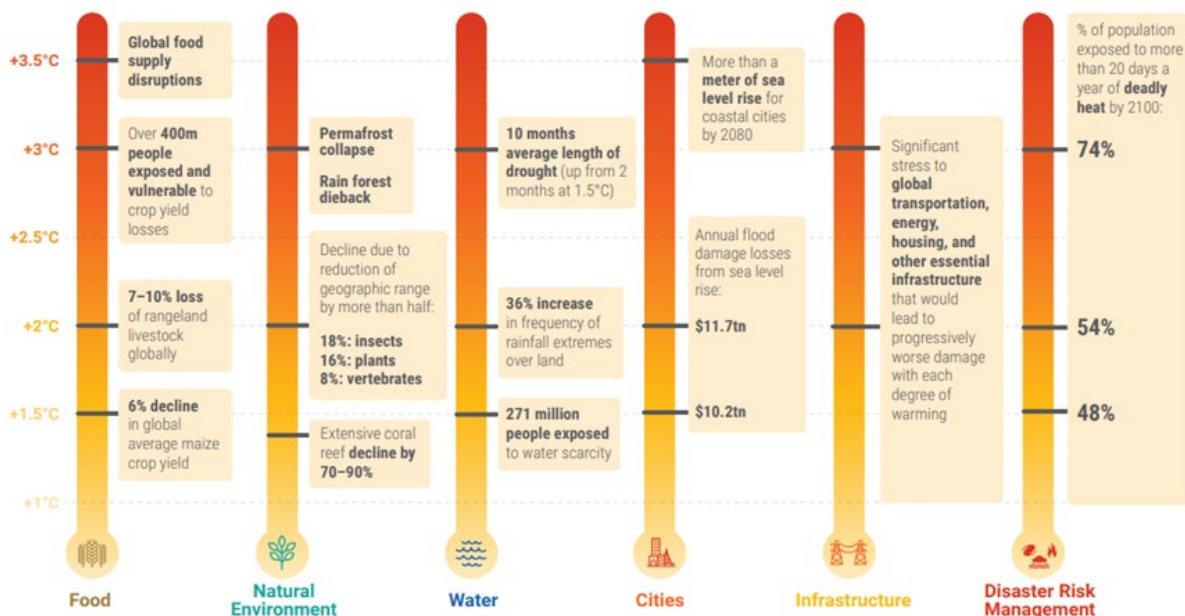
✓ Frequently Asked Questions

Q1: What is the climate crisis?

Our global society's use of fossil fuels for energy, transport, agriculture, and materials has resulted in significant rise in the concentration of greenhouse gases in the Earth's atmosphere. The most dominant of these gases is carbon dioxide (CO₂).

These greenhouse gases can remain in the atmosphere for decades or centuries. As a result, the Earth has already experienced global warming – a rise in average temperatures of almost 1.1°C.

This warming already has severe consequences, including heatwaves and floods. If 'business-as-usual' continues and emissions continue to rise, there will be even more devastating impacts:



Source: World Resources Institute, adapted from the IPCC and others.

Rising sea levels, extreme weather events, the degradation of ecosystems, and biodiversity changes are affecting many environmental systems, resulting in economic disruption, impacts on food and water security, and forced migration.

The scientific evidence for human-caused climate change is now well understood, and its direct impacts on human wellbeing will only get worse as emissions continue to rise.



Q2: What is the solution?

Climate change is caused by greenhouse gas emissions, so tackling climate change is relatively simple in principle: we need to reduce emissions.

In 2015, 196 countries signed the UN 'Paris Agreement' to keep global temperatures within 2°C above pre-industrial levels. This was later revised to 1.5°C.

The largest proportion of annual emissions come from our energy use in industry, manufacturing, residential homes, plus our transportation needs. Other large contributors are agriculture (particularly animal farming) and industrial processes such as making cement.

Since all these activities serve a purpose and we need to continue to provide such basic services as food, electricity and housing, all of these need to be decarbonised to tackle the climate crisis.

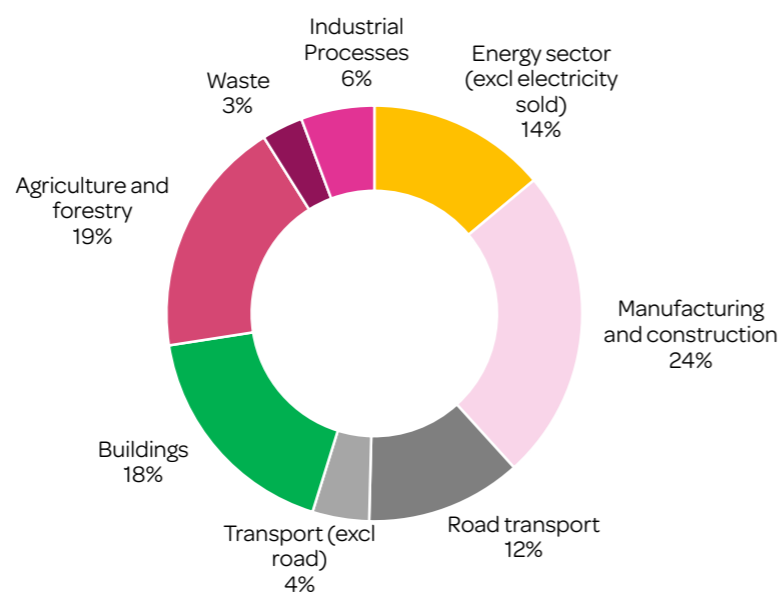
Q3: What do we mean by 'net zero' emissions?

If the same amount of greenhouse gases is removed from the atmosphere as is emitted, then we are no longer adding emissions to the atmosphere. This is what we mean by 'net zero' emissions – a balance between new emissions and emissions recaptured and stored.

To keep to within our 1.5°C global warming, the whole world needs to achieve net zero emissions by 2050.

Many individual countries and businesses have already set their own 'net zero' targets in line with this overall global goal.

Global Greenhouse Gas Emissions by Sector



Data sources: Emissions from combustion of fuels: IEA, 2016. Other emissions: Climate Watch; Source of graph: EarthCharts.org

Q4: How big is the challenge?

The chart on the next page shows the steep decline in emissions required at a global level to meet our 1.5°C goal. Any delay in acting now, at scale, will put this goal out of reach.

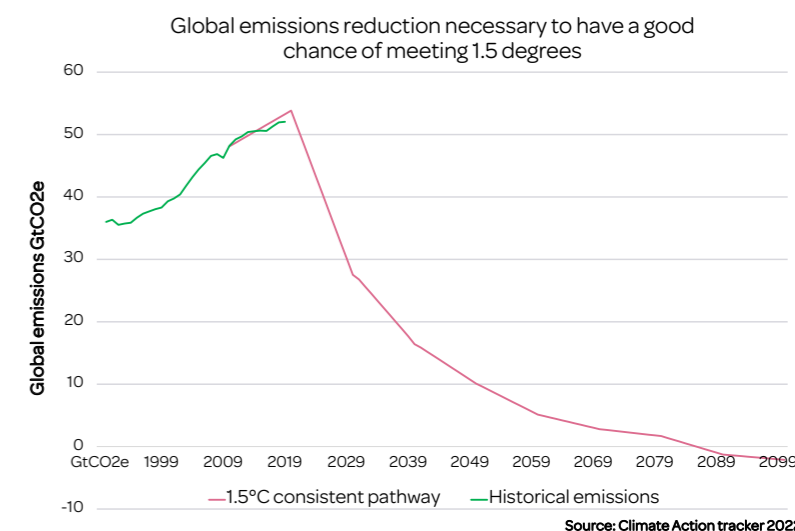
This looks like a large drop, and it is. The steep slope of the graph in this scenario means we need to

make the quickest progress in the next decade.

To transform the fundamental workings of our globalised economy away from its reliance on fossil fuels will require significant innovation and investment.

It is estimated that \$125 trillion of climate investment is needed by 2050 to achieve net zero emissions.

The sustainable and green revolution will likely be at the scale of the industrial revolution, at the speed of the internet technology revolution.



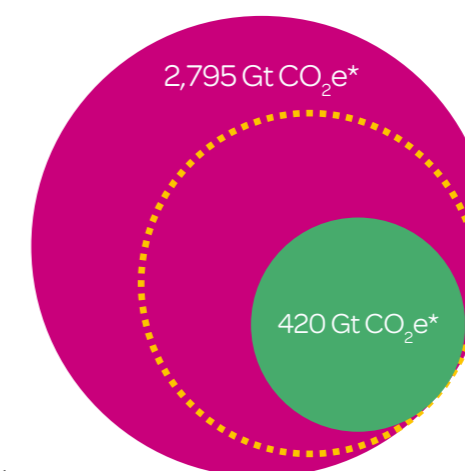
Q5: What are the risks?

Climate change presents direct, physical risks to companies, including damage to property from extreme weather events, loss of productivity (e.g. crop yields), rising input costs (e.g. water scarcity) and rising insurance costs in coastal and other vulnerable regions. These are all factors that can and do affect the profitability of companies – and therefore their value to investors.

There are also so-called 'transition risks'. United Nations Principles for Responsible Investment inevitable policy response forecasts the regulatory pressures that will likely come into play as the climate crisis becomes more severe.

For example: the introduction of a carbon price would hit the polluting companies with increased costs. Companies holding coal, oil and gas reserves on their balance sheet may see write-offs as these become 'stranded assets'.

Total carbon potential of Earth's known fossil fuel reserves



Fossil fuel reserves of largest 200 public coal, oil and gas companies

Global carbon budget between 2020-2050 for 1.5° scenario

Source: Carbon Tracker Initiative IPPCEQ Investors
*Gigatonnes of carbon dioxide emissions equivalent to burning the reserves

Several countries have already announced plans to ban the sale of new petrol and diesel vehicles, changing the competitive landscape and leaving behind manufacturers without an electric strategy.

Companies that decarbonise too slowly could see litigation cases, such as the energy company Shell being taken to court by concerned citizens over their decarbonisation targets' lack of ambition.

Investment managers need to understand these risks across industries and differentiate the green transition leaders from the laggards. They also need to use engagement to drive consistent and ambitious decarbonisation targets in line with net-zero by 2050. Investments can only be protected from real value erosion by integrating climate risks into investment decision making.

Q6: What are the opportunities?

The International Energy Agency estimates that around \$4 trillion of investment is required every year to achieve net zero and to stay within a 1.5°C scenario. These unprecedented inflows will drive innovation and growth.

Changes will occur across all sectors as they find new ways to meet needs without the associated carbon emissions. Businesses with innovative products and services that provide solutions to the problem of carbon emissions are already positioned to grow.

Positive change has already begun - subsidies are helping to drive the electric car revolution, renewable energy is becoming price-competitive with fossil fuels, and energy efficiency breakthroughs are enabling greening of our buildings.

Investment managers can capture these opportunities by investing in companies that are leading the transition in their sectors and providing new ways to avoid carbon. In the same way that Alphabet (Google) and Microsoft led the digital revolution to become world-leading companies, we expect climate solutions companies to lead the decarbonisation revolution.

Client portfolios should be positioned to capitalise on these themes:



Q7: Why are science-based targets important?

Setting goals and targets is not the same as achieving them. As every business starts to publish their own net zero targets and plans, investors need to have a way to distinguishing real credible action and good marketing.

The Science Based Targets initiative (SBTi) is an independent body which has developed a set of criteria for different industries, including scientific methods for measuring emissions. A business with short, medium, and long-term targets that have been verified by SBTi can be seen as having a credible emissions reduction plan.



For investors, SBTi is quickly emerging as the most reliable way to judge whether a business is serious about climate change and has addressed their climate risks. Investors are also using SBTi to set their own targets to reduce the emissions associated with their investments.

Find out more

If you have any questions about how EQ can help you align your investments with a net zero future please get in touch via your financial adviser.



Past performance is not a guide to future performance. The value of investments and the income derived from them can go down as well as up, so you could get back less than you originally invested.

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EQ/0422/528