#WhyESGMatters

The urgency for climate action in 2022

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At last year's annual UN Climate Change Conference (COP26), limiting global temperature increases to 1.5°C and setting net-zero emissions targets became the benchmark for many economies. Yet governments and corporates must start to live up to their net zero rhetoric, as COP27 in November will no doubt induce pressures to revise climate pledges, deliver on climate finance and raise the profile of adaptation for global leaders.

In this issue of #WhyESGMatters, we look at the climate progress made and what investors should anticipate ahead of COP27. We also discuss the latest report from the UN climate science body, on the impacts, adaptation and vulnerability of ecosystems, biodiversity and human communities as a result of climate change. Together these attribute to the urgency of climate actions in 2022.

Did you know?

+13.7%
Emissions trajectory by 2030 vs 2010, based on current climate pledges

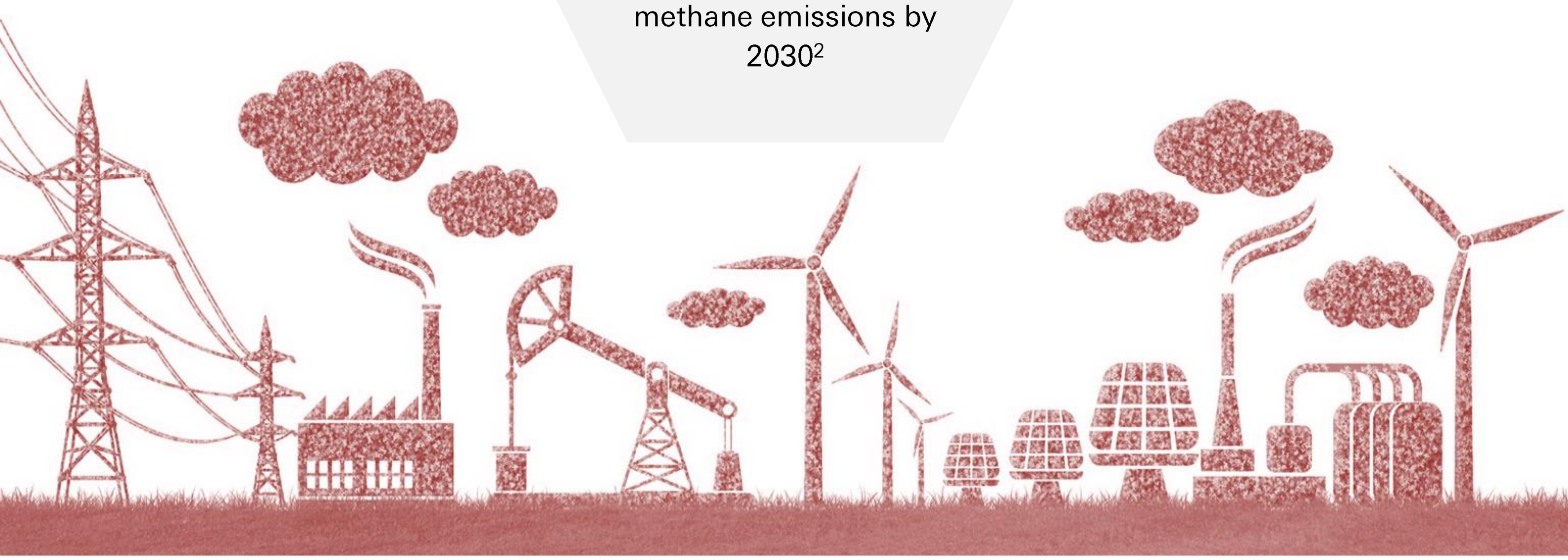
-45%
Required emissions trajectory by 2030 vs 2010 to be on a 1.5°C pathway

140
Number of countries with net-zero targets[1]

30%
Target reduction in methane emissions by 2030[2]

65m
People affected by climate disasters in 2021

USD150b
Damages incurred from climate disasters in 2021



Source: The Climate Action Tracker, EDMAT

[1] As of 9 Nov 2021
[2] Versus 2020 as per the Global Methane Pledge

1. Climate progress in the past year

COP26 last year was a modest success, involving compromise and a mix of disappointment and progress on many issues. Guidelines for implementing the Paris Agreement were finalised, yet the curbs on coal and fossil fuels, though watered down, were a surprise. Total greenhouse gas emissions are still projected to increase by 13.7% by 2030 (from 2010-levels), in reality this should be a 45% decrease to be on the 1.5°C pathway.

The challenge in 2022 will be to bring even more ambitious 2030 targets to the table. As of November of last year, over 140 countries that cover 90% of global emissions have net-zero targets[3]. This coverage was already increased by 27% in 2020, along with notable new additions in 2021 including India, Australia and the UAE. However, making the pledges is the easy part; delivering and implementing the policies is much more challenging.

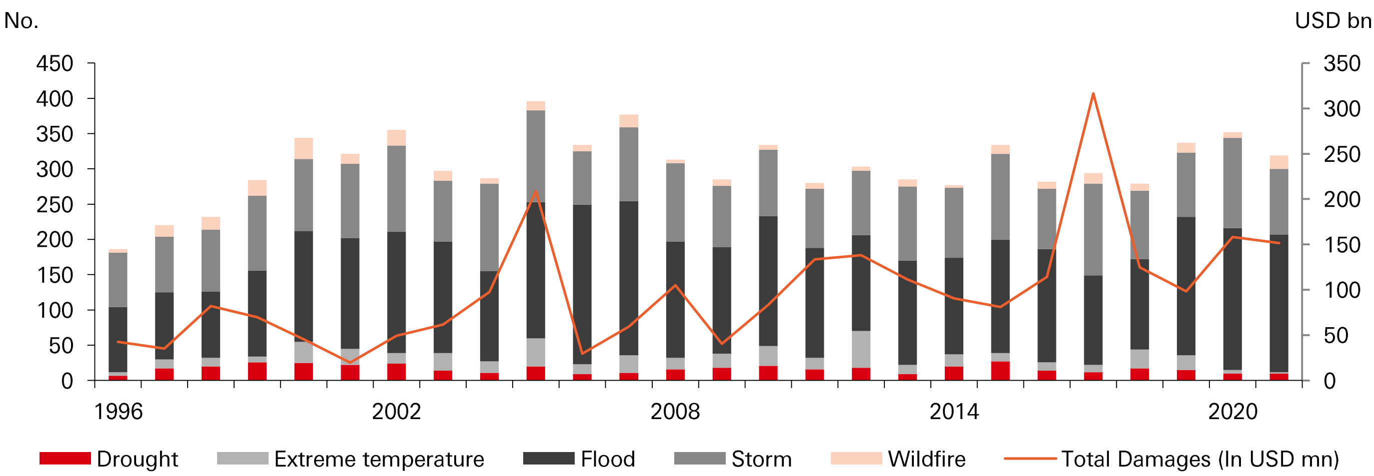
Corporate pledges

Over 220 corporations declared net-zero pledges in 2021, a significant rise from the prior year. Similar to governments, these corporates may be subject to increased scrutiny from investors and civil society, on whether the pledges are credible and amount to real declines in emissions. Some corporates may also be tied to greenwashing, or misleading consumers to think that their products are environmentally sound.

State of the climate

Climate extremes in 2021 continued to break long-standing records. Wildfires in Siberia, Turkey, and the US produced record carbon emissions[4]. Global sea level rise and average change in ocean heat content reached an all-time highs since the 1955-2006 reference period. Parts of North America witnessed several heatwaves in the months of June and July. Western Europe experienced extreme flooding causing over 200 deaths and economic losses of over USD20bn. The city of Zhengzhou in Mainland China received 201.9mm of rainfall in an hour, breaking a national record. In 2021, some 65m people were affected by climate disasters, and damages worth over USD150bn were incurred.

Figure 1: Climate-related disasters



Source: The Climate Action Tracker, EDMAT

[3] The Climate Action Tracker
[4] Copernicus Atmosphere Monitoring Service, the European Union

2. What to look out for in 2022

The science of climate change

The UN's Intergovernmental Panel on Climate Change (IPCC) recently published a report entitled "Impacts, Adaptation and Vulnerability" as part of its current assessment cycle (AR6) on climate science. It is the second of our four key reports incorporating observations from hundreds of scientists and advanced climate modelling. The findings are important in cementing the role of science to influence government policy and highlighting the urgency of ambitious action.

Figure 2: Reports from the AR6 of IPCC

1 The Physical Science Basis (Aug 2021)	• Comprehensive view of the climate system and its changes, including human influence on climate variables • Projections of the changes in climate system and possible control to assess the effect of projected climate and air pollution
2 Impacts, Adaptation and Vulnerability (28 Feb 2022)	• Benefits, risks and costs of climate mitigation & adaptation • Explores the consequences of inaction, including on biodiversity loss, rapid urbanisation, human demographic shifts, social and economic inequalities
3 Mitigation of Climate Change	• Scheduled release in Apr 2022 • To include: socio-economic scenarios and modelling; consumption patterns, human behaviour and emissions
4 AR6 Synthesis Report	• Scheduled release in Sept 2022 • To include: current status and trends of climate system changes, near-term responses and long term climate and development futures

Source: IPCC

Impacts, adaption and vulnerability

Investors can refer to the key findings from the latest IPCC report as follows:

- Human-induced climate change has caused widespread adverse impacts, broadly categorised as: 1) those that affect ecosystems and 2) those that have a more direct effect on human systems. **Some changes are already irreversible, as human and ecosystems are beyond their ability to adapt.**

- **Vulnerability to climate change** depends on geography and how exposed the local natural systems, economy and people are to specific impacts. Communities that depend on ecosystems for basic needs are the most affected. Climate-resilient standards are key for infrastructure build (water, health, transport, energy, communications) to refrain from further vulnerability.

- **Risks and impacts vary through time and grow with rising temperatures.** The warmer it gets, the more challenging (technologically and economically) adaptation will be. There is also a gap between implemented adaptation and the goals set by society, the latter influenced by tolerance to climate change impacts, resource limitations and competing priorities. In short, current levels are deemed insufficient for long-term transformative adaptation to cope with temperature rises.

- **Estimating the finances of adaptation is another challenge.** The IPCC report does not mention a definitive number or range on costs, partly due to the lack of agreement over 'how much should we adapt' as views differ on necessity and sufficiency.
- **A number of enablers would accelerate adaptation**, categorised as: political commitments (e.g. public awareness, mechanisms for accountability and transparency), frameworks for institutions (e.g. on policy, legal and climate risk disclosure), financing (e.g. public-private partnerships, budget allocation) and monitoring of outcomes.
- **Adaptation solutions cannot be applied uniformly across the world** as many nuances come in play. These cover economic and social development, as well as cultural and equity differences. The IPCC believes that the knowledge, impacts, planning and implementation of adaptation should take into account disparities such as "gender, ethnicity, disability, age, location and income".
- **Climate resilient development**, defined as the process of implementing greenhouse gas mitigation and adaptation measures, is "more **urgent**" and "progressively **constrained by every increment of warming**". The window to deploy such measures is rapidly narrowing.

Pledges leading up to COP27

Countries had announced or upgraded their climate pledges at COP26 in 2021, know as National Determined Contributions (NDCs). These NDCs are expected to be revisited and strengthened prior to COP27, to be held in Egypt in November 2022. Yet this could prove challenging, as many had already undergone a round of "climate ambition raising" last year, though still far off the mark to reach the 1.5°C trajectory.

For example, whereas the IPCC finds that net-zero emissions should be achieved by 2050, just over four-fifths of national net-zero pledges meet this (2050) criterion. Those pledges that are later than 2050 have the potential to bring their pledges forward – and this would count as strengthening a climate pledge.

Scrutiny of net zero – countries and companies

Most G20 countries now have some form of net-zero target but very few have detailed how it will be achieved. Companies must too, do their parts to implement targets – investors are asking more probing questions specific to net-zero strategies.

Companies have tended to report on their emissions 1) directly produced by their own sources and 2) emissions produced via energy-related purchases e.g. electricity, steam, heating and cooling. All other emissions from sources not owned or controlled by companies are oftentimes ignored, despite the fact that this category can compromise of the greatest share for corporate emissions. Oil companies, for instance, may emit little themselves, but consumers of their products are responsible for significant emissions.

There is growing scrutiny over these emissions, however, with central banks including them in climate-risk stress tests. During 2022, more investors are likely to analyse corporate emission-reduction targets and net-zero strategies to learn the full climate exposure of their own portfolios.

Carbon pricing

Carbon markets, or trading of emission allowances to help achieve reduction targets[5], will have heightened focus in 2022. As companies and investors (institutional and individual) seek to use carbon credits/offsets to meet their targets, there may be growing concerns over the credibility of carbon offsets. Dubious science, monitoring and accounting can allow 'carbon laundering' – including schemes that actually increase global emissions. Several countries are set to introduce carbon pricing in 2022.

Methane

We also expect much greater awareness of methane emissions. The Global Methane Pledge, signed by over 100 countries ahead of COP26, aims to reduce these emissions by at least 30% by 2030 (from 2010 levels). The US has already tabled the Methane Emissions Reduction Act of 2021 into legislation, and the EU has proposed new regulations on reducing methane emissions.

[5] European Commission

4. Conclusion

Although the climate spotlight may be a shade less bright in 2022, there is still plenty for investors to digest. New findings in the IPCC report lead to another wake-up call for business and political leaders to action, as they start living up to their net-zero rhetoric and keep up the momentum for COP27 in Egypt. Investors will also want to understand companies' disclosures on greenhouse gas emissions, methane reduction strategies and carbon pricing.

As environmental, social and governance (ESG) trends continue to rise, so will the interest in sustainable investing opportunities by investors. There is an even stronger case now to demand more actions from businesses and governments to implement net-zero measures, and for companies to deliver the technology that will help scale decarbonisation. Embedding ESG metrics into one's portfolio may also be an effective way to manage risk, enhance the potential for resilience and tap into green innovation to generate long-term capital grown.

Disclosure appendix

1. This report is dated as at 2 March 2022.
2. All market data included in this report are dated as at close 1 March 2022, unless a different date and/or a specific time of day is indicated in the report.
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