#WhyESGMatters

The climate in 2023

HSBC Opening up a world of opportunity

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Greater urgency must return to the climate process after a year of distractions in 2022. The first global stocktake, which will take place this year and show just how far we are from implementing the Paris Agreement, will be another wake up call. The flow of climate finance to developing countries will also be in the spotlight while investors will scrutinise corporate net-zero plans more closely as a number of regulators tighten climate disclosures.

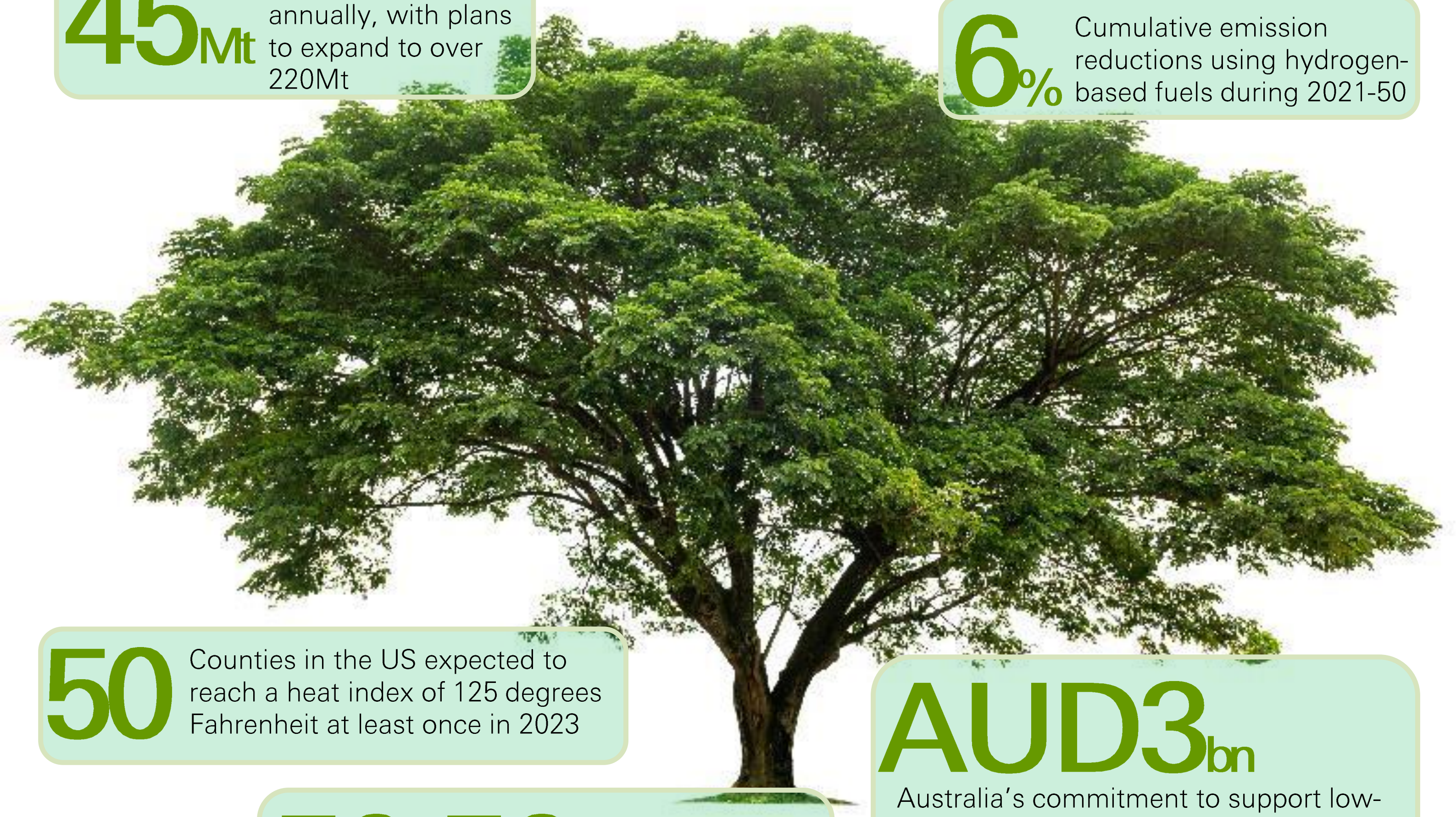
In this issue of #WhyESGMatters, we discuss key topics on the climate agenda this year, including what to expect from climate talks at COP28, action to lower methane emissions, and the pressing debates around climate finance. We also highlight emerging technologies which may see renewed investor focus this year and actions that certain countries are planning as part of their energy transition.

Did you know?

34 Parties that revisited and strengthened their climate pledges in 2022 (out of 198 parties to the UN Framework Convention on Climate Change)

45Mt CO_2 captured annually, with plans to expand to over 220Mt

6% Cumulative emission reductions using hydrogen-based fuels during 2021-50



50 Counties in the US expected to reach a heat index of 125 degrees Fahrenheit at least once in 2023

AUD3bn Australia's commitment to support low-emissions technology and agricultural methane reduction

50:50 Chance that one year in the next five will touch 1.5°C above pre-industrial temperatures

Source: IPCC's Sixth Assessment Report (2022), World Meteorological Organisation, International Energy Agency

1. What to look out for in 2023

With the climate agenda set to receive a renewed focus in 2023, we highlight key events for investors to note this year, including more discussion on the size of the temperature 'overshoot', greater focus on methane emissions, and the all important issues of climate finance.

COP28 in the UAE

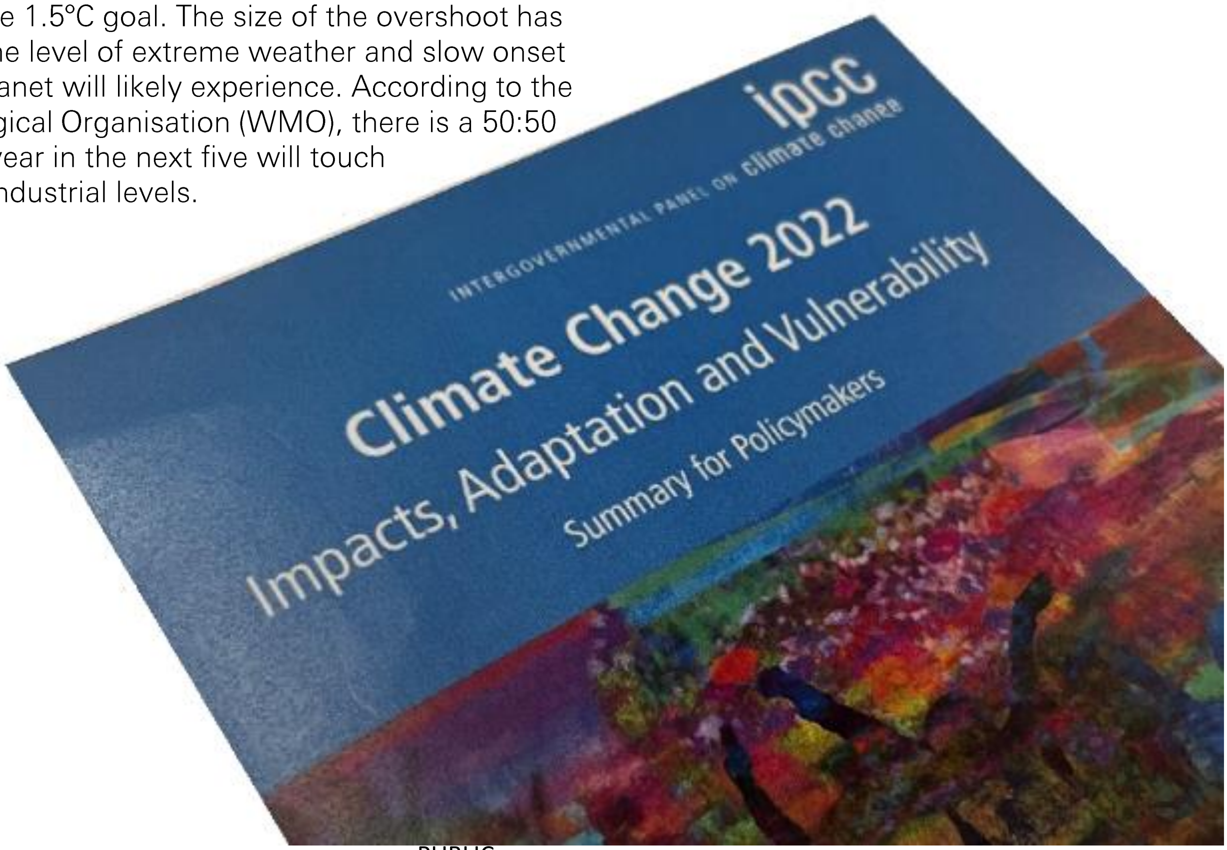
Following the slow progress from COP27 in Egypt last year, the next major climate talks will take place in the UAE from 30 November to 12 December 2023. These talks are important as they include the **first global stocktake of the Paris Agreement**, to assess progress against the goals of the Agreement, which aims to limit global warming to, preferably, 1.5ºC above pre-industrial levels.

There will also be ongoing workshops throughout the year with regards to key elements, such as the global goal on adaptation (efforts to drive collective action on adaptation), finance goals, and how to operationalise the Loss and Damage Fund (support for developing countries that are particularly vulnerable to the impacts of climate change).

Science – in the background but always there

Synthesis report: the Intergovernmental Panel on Climate Change (IPCC) is expected to release a synthesis report in March 2023, which follows its three special reports published last year as part of its sixth assessment cycle. This final report will not only aggregate findings from the series, but also add to the sense of urgency, given the climate events of 2022.

"The overshoot": We expect more discussion around "the overshoot", which is the amount of temperatures that will likely increase above the 1.5°C goal. The size of the overshoot has implications for the level of extreme weather and slow onset events that the planet will likely experience. According to the World Meteorological Organisation (WMO), there is a 50:50 chance that one year in the next five will touch 1.5°C above pre-industrial levels.



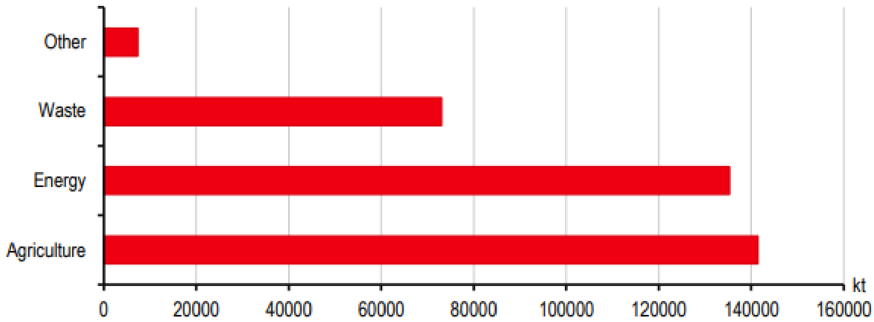
Methane – record levels

Methane is a powerful but short-lived climate pollutant that accounts for about half of the net rise in global average temperature since the pre-industrial era[1]. According to the World Meteorological Organisation, atmospheric levels of methane reached record highs in 2021 and are expected to rise in 2022 (there is a recording delay). We see two main facets to watch out for in regards to methane in 2023:

1. **Improvements in methane detection technology** could lead to methane pricing being considered, if not adopted in more jurisdictions, especially as more countries join the Global Methane Pledge (which aims to reduce methane levels to keep the 1.5°C goal within reach).

2. **Focus on reducing agricultural emissions** (see Figure 1). New Zealand, for example, announced plans in October 2022 to charge farmers on livestock methane emissions while Australia has committed AUD3bn (~USD2.05bn) to support low-emissions technology and agricultural methane reduction. We anticipate more attention on agricultural-related methane emissions.

Figure 1: World methane emissions from all sources



Source: International Energy Agency 2022, HSBC

Climate finance

As part of the UN climate process, developed countries have continued to miss promised climate finance flows to developing countries, especially the USD100bn promised by 2020. COP27 highlighted that climate finance requirements are now in the trillions rather than billions. In 2023 we think the world will start to focus more on its practical meaning and why these flows aren't happening faster.

There're growing calls for the **private sector** to contribute more towards climate finance and the key market failure is the perceptions of risk that lead to a prohibitively high cost of capital. **Multilateral finance institutions** have a unique role to play in overcoming these market failures but their current activities, particularly around blended finance, have fallen short.

Hence, we think there will be more debate on **concessional finance** in 2023, especially as the fiscal outlook for many economies – dealing with potential recession and inflation – may not be in a position to take on more long-term debt. We also expect growing calls to reform Bretton Woods Institutions (e.g. IMF and World Bank), enabling them to tackle these market failures more effectively.

1. www.globalmethanepledge.org

Carbon credits/offsets

As more companies make net-zero pledges, the demand for carbon offsets is set to rise. In 2021 alone, Global Voluntary Carbon market values nearly quadrupled. But, as volumes grow alongside concerns over carbon integrity, we think scrutiny of carbon credits and voluntary carbon markets will also increase from regulators in 2023.

Trade & carbon border taxes

The EU's Carbon Border Adjustment Mechanism – which ensures that certain goods (such as iron and steel) face the same carbon price whether imported or produced in the EU – will begin operating from October 2023[2]. We believe this will accelerate the adoption of carbon border taxes in other developed countries and the implementation of carbon pricing in developing countries. The United States, for example, has already proposed a border adjustment tax that is expected to start in 2024.

2. Increasing investment in green technology

Fossil fuels were even more in focus in 2022, given the Russia-Ukraine war and the resulting energy supply issues and price spikes. We anticipate these pressures to remain in 2023, given that it takes time to build out alternative options, such as renewable infrastructure. Specifically, in 2023, we expect:

- **Oil and gas prices** to remain high as availability continues to be constrained by the curbs on Russian supply (in addition to the long-term issue of less new upstream oil and gas investment)
- Ongoing tactical pivots towards **alternative energy sources** (mostly coal, some nuclear) to bridge the gaps left by the absence of Russian fossil fuels
- The heavy presence of the **fossil fuel industry at COP28** may lead to more focus on "low-emission energy" (e.g. natural gas) while reducing chances of commitments to phase down fossil fuels
- The continuation of the renewed push (and debate) by developing countries (particularly in Africa), allowing them to develop their **fossil fuel assets**

2. EU climate action: provisional agreement reached on Carbon Border Adjustment Mechanism (CBAM) - Consilium (europa.eu), December 2022

Given these developments, we expect to see increasing investment into a number of **energy efficiency and green technologies** to help lower emissions and bolster energy security in 2023.

'Green' hydrogen

Hydrogen generated from renewables can be used to decarbonise a range of industries, including transport (particularly trucks), power generation and chemicals. According to the International Energy Agency, 6% of cumulative emission reductions could be achieved by using hydrogen-based fuels in 2021-50, highlighting its important role in achieving net-zero emissions by 2050.

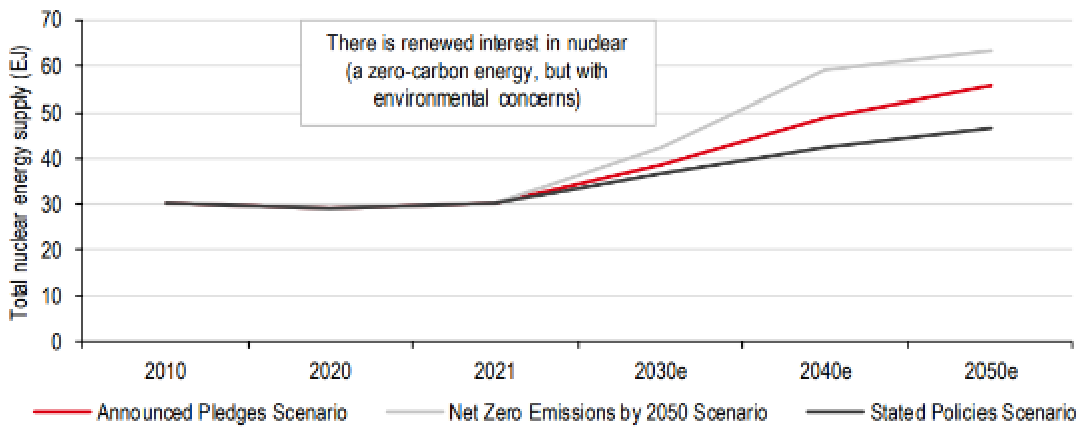
Carbon capture and storage (CCS)

CCS attempts to remove CO_2 from industrial processes before they can enter the atmosphere. It currently captures approximately 45Mt of CO_2 annually, with plans to expand this to over 220Mt CO_2 per year. We expect to see CCS momentum pick up in the coming year, especially after recent EU announcements to certify removals of carbon credits and their inclusion in EU climate targets[3].

Nuclear energy

Many countries updated their policies in 2022 to support new nuclear investment given the Russia-Ukraine war (see Figure 2). Japan announced plans to build new nuclear reactors and restart idle plants[4], France said it would build six large nuclear reactors with an option to build eight more by 2050[5], and the EU revised its classification of nuclear energy as a green activity which could influence other countries' attitudes towards nuclear power generation.

Figure 2: Annual total nuclear energy supply (2010-2021) and IEA projection (2030-2050)



Source: International Energy Agency World Energy Outlook 2022, HSBC

3. Reuters, EU takes 'first step' to certify removing CO2 from atmosphere, 30 November 2022
4. Financial Times, 24 August 2022
5. The Guardian, 10 February 2022

3. The diversity of global action

As government support is crucial in achieving net-zero targets, we outline key climate policies on the agenda for 2023 and how they can assist in their decabonisation efforts.

EU – making proposals a reality

2023 will be crunch time for the EU to finalise negotiations on proposals for the **Fit for 55 package** and, crucially, to ensure such legislation becomes law. This package represents proposals to revise and update EU legislation to reduce net greenhouse gas emissions by at least 55% by 2030.

The **European Green Deal** (policies to reduce EU greenhouse gas emissions) includes other key strategies that will make further strides in 2023 such as biodiversity, air and water quality, and sustainability of plastics and packaging. Other proposals to be particularly aware of include in Figure 3.

Figure 3: Highlights of the European Green Deal

- Reform of the EU electricity market in early 2023; decoupling effect of gas prices from electricity prices to ensure affordable energy
- European Hydrogen Bank; Euro 3 billion investment into the hydrogen market
- Measures to reduce food and textile waste
- Framework for sustainable food systems including changes to EU's animal welfare law
- New law to fight global deforestation and forest degradation driven by EU production and consumption to be passed
- Revision of legislation on the registration, evaluation and authorisation of chemicals to promote sustainable chemicals

Source: European Commission, HSBC

UK – standard disclosure

The mandatory **Taskforce on Climate-related Financial Disclosures** (TCFD) reporting was introduced in April 2022 as the first step in climate-related disclosures for premium and standard issuers in the UK. The disclosures include four pillars (Governance, Strategy, Risk Management and Metrics and Targets) with 11 questions to assess the integration of climate issues within an organisation.

In September 2023, we expect finalisation of the **Taskforce on Nature-related Financial Disclosures** (TNFD) , which was built on the foundation of the TCFD. This extends the framework and requires financial institutions and corporates to understand, report and act on nature-related risks and opportunities. The UK has endorsed the TNFD along with the US, the EU, Canada, Germany, France, Italy and Japan.

The United States – the impact of reducing inflation

The **Inflation Reduction Act** (IRA), which included the largest investment (cUSD370bn) in the US history to fight climate change, was signed into law in the summer of 2022. Under the IRA, the renewable energy credits were expanded to include wind, solar and other technologies, such as energy storage and hydrogen. We think the IRA will boost investments in renewables, given their improving economics.

China – on the rebound

China announced that its draft methane plan was pending approval in November 2022, following the commitment to develop a national action plan on **methane** in a US-China joint climate declaration in 2021. We expect it to be released this year and to cover the energy and waste management sectors.

China's Ministry of Ecology and Environment also announced in October 2022 that it would strive to expand its coverage of its **national emissions trading system** (ETS) – a carbon market where emitters can buy and sell emission credits, launched in July 2021 – which we expect to see in 2023.

India – leadership in 2023

India moved forward in 2022 by updating its energy efficiency policies, renewable deployment, and other climate policies and releasing its national hydrogen plan. The country also took over the G20 presidency in December 2022 and will convene the summit for the first time in 2023 which could be a precursor to India strengthening efforts towards a greener future through newer policy and targets.

ASEAN – steady progress all round

ASEAN countries are stepping up efforts to invest in the green transition, despite their high reliance on coal and oil. We expect reporting standards to be strengthened in the coming year alongside growth in the number of member nations adopting carbon pricing.

4. Conclusion

2022 wasn't a great year for global climate progress, and the political distractions from climate ambition are still in play. 2023 should start to reveal whether energy security concerns will morph back into energy transition plans, with the IPCC Synthesis report in March acting as a reminder of the urgency while more frequent extreme climate events may also drive the message home. Investors should, therefore, be aware of energy efficiency technologies that can help decarbonise industries and support energy security, such as 'green' hydrogen and carbon capture and storage, as they may see greater focus in 2023.

Disclosure appendix

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