



COP26: Key outcomes and next steps for the UK

December 2021

Contents

Executive Summary	3
1. What did COP26 deliver?	8
2. How did COP26 move global ambition?	14
3. How can the UK help deliver the Glasgow Climate Pact?	19
4. CCC work to support implementation of the Paris Agreement	27

Executive Summary

COP26 made progress on climate mitigation, adaptation, and finance, and set a plan to accelerate global actions where gaps persist.

COP26 in Glasgow marked a step forward in global efforts to address climate change, including a material increase in ambitions to reduce emissions across the world, finalisation of rules on reporting emissions and international carbon trading, and the launch of a range of new initiatives and sector deals. How far this can be considered a success will depend on follow-up actions over the coming year and beyond.

This briefing takes stock of global progress after COP26 and identifies key actions for the UK in response, both at home and internationally.

Stocktake of COP26

Global ambition has increased, particularly for the long-term, with Net Zero adopted as the standard goal for emissions across the world. Nearer-term ambition has also moved, but not yet enough to match the long-term goals, raising questions over their credibility. The Glasgow Climate Pact rightly puts focus on the 2020s as the critical decade for accelerating climate action.

If all the ambition in all announced national 2030 and Net Zero targets is delivered (and applied to all greenhouse gases not just CO₂) an expected warming of just under 2°C might be achieved. However, current climate policies would not deliver close to these targets. Rather, the world is currently on track to an expected temperature rise of around 2.7°C.

Global warming of 3 or 4°C is no longer expected, but the world is not yet on track to the Paris Agreement's temperature goal to hold the rise to well below 2°C and pursue efforts to 1.5°C.

While the current situation is a marked improvement on where the world was heading prior to the Paris Agreement – when there was an expected warming of 3.6°C or more – it is not enough.

Climate damages are already being felt strongly around the world and every fraction of a degree increase in temperature intensifies these damages. The Glasgow Pact acknowledges the harm from additional warming and “resolves to pursue efforts to limit the temperature increase to 1.5 °C”.

More action to cut emissions to 2030 will determine how close to 1.5°C the world can limit warming. Every increase in action matters.

COP26 initiated several processes that could accelerate emissions reductions to 2030, for which progress over the next year will be vital. Every additional reduction to 2030 increases the chance of meeting the 1.5°C goal and reduces the climate damages that the world will face.

Even with greater efforts to cut emissions, more action will be needed on adaptation to the impacts of climate change, and greater climate finance flows from developed to developing countries. Climate ‘loss and damage’, finance and the level of emphasis on 1.5°C remain significant fault-lines in the global negotiations.

UK actions at home

We recommend the UK focuses on delivering its existing ambitious targets rather than further increasing ambition.

The Glasgow Climate Pact requested that all countries revisit and strengthen the 2030 targets in their Nationally Determined Contributions (NDCs) to align with the Paris Agreement temperature goal in the coming year. The UK should focus its efforts on strengthening delivery rather than increasing its headline target, and seek ways to supplement current plans, including by taking more action to tackle its consumption emissions.

- Our assessment reflects that the UK's NDC already has one of the most ambitious 2030 targets for reducing emissions in the world and was designed to be consistent with the Paris Agreement's temperature goal based on detailed independent advice. However, the UK does not yet have all the policies in place to deliver this ambition. The Net Zero Strategy provides a strong foundation for delivery and needs to proceed at pace; a change in ambition would risk slowing this process down.
- Rolling out the Net Zero Strategy must lead to emissions falling in all sectors (i.e. going beyond recent progress dominated by the power sector). While we assessed the Strategy as strong overall, we identified the need for implementation to follow quickly and for clearer plans on agriculture policy. We also identified a gap on behaviour change (e.g. shifting diets away from meat and dairy and limiting aviation demand growth), which could provide a route to slightly greater emissions reductions.
- Alongside tackling behaviour change, actions to address consumption emissions (i.e. including emissions embedded in imports) could include: encouraging corporate action on supply chains and voluntary offsetting; and product standards, carbon border adjustment mechanisms and trade levers. The latter are also important for maintaining UK competitiveness as trade-exposed industries decarbonise.
- In response to the Glasgow call for a 'phase-out of inefficient fossil fuel subsidies' the Treasury should initiate a review of the role of tax policy in delivering Net Zero. The review should include the role of tax in achieving a higher and more consistent carbon price across the economy, given that a low carbon price can be considered a subsidy. The Committee does not consider that any fossil fuel subsidies should be classed as 'efficient' in the UK.
- The UK should considerably strengthen its policies on adaptation. These need a clear vision backed by quantitative targets, strong cross-government policy to respond to key climate risks and a robust approach to monitoring and evaluation. These plans could be included in an updated NDC.
- Technical options for strengthening the UK's NDC include making it legally binding, clarifying that it will be met without offsets and with a limited role for CO₂ removal, and including the sector targets set out in the Net Zero Strategy.

The UK could go further on consumption emissions and behaviour change.

The Treasury should review the role of tax in cutting UK emissions.

The UK's international role

The UK continues to hold the COP Presidency for the next year until COP27 in Egypt. It has a vital role in driving progress in this period and beyond across mitigation, adaptation and finance. This in turn will support the UK's climate goals at home. The UK should:

- Maintain a strong COP team with high-level leadership through at least the duration of the Presidency, recognising that decisions over the coming year are critical to the chances of limiting global temperature increase close to 1.5°C, and that the COP team has built significant diplomatic capital and expertise.
- Continue to prioritise climate change at G7 and G20 level.

The UK has a key role in strengthening global ambition and should retain a strong COP team.

The new sector deals and business commitments at COP26 could be a platform for stronger action.

- Encourage stronger 2030 NDCs by COP27 in a year's time. This means that the countries yet to increase their ambition or where their ambition is not aligned to the Paris temperature goal need to set more ambitious 2030 targets. As we advise for the UK, for those that have submitted targets aligned to the Paris Agreement's temperature goal it may primarily mean bringing forward policies to deliver them and strengthening other aspects.
- Support expanded participation in the various new pledges and initiatives launched in Glasgow and contribute to strengthening of their governance, financing and delivery mechanisms. These include deals on coal phase-out and other fossil fuels, ending deforestation, switching to zero-emission vehicles, and reducing global methane emissions.
- Support strengthened action beyond national level, including the various private sector initiatives launched at COP26 across businesses and the financial sector.
- Help put the completed Paris rules into action and consider whether the rules on international carbon trading offer a route for the UK to support accelerated global ambition, including through corporate action.
- Ensure that climate finance commitments, including doubling funding for adaptation, are transparently delivered and that a constructive dialogue proceeds on loss and damage. Alongside this, revisit the UK's climate finance contributions, restore the commitment to spend 0.7% of GDP on aid as soon as possible, and continue to direct around half the finance to adaptation. Consider further innovative collaborations to increase ambition, like the South Africa Just Energy Transition Partnership, while pushing forward delivery of existing partnerships.
- Continue to champion the role of evidence-led and science-based decision-making in international fora, including reflecting the IPCC Working Group II (Impacts, Adaptation and Vulnerability) and III (Mitigation of Climate Change) reports due out in 2022.

The role of the Committee

The Committee will scrutinise UK action and collaborate with independent advisors around the world.

The Committee will continue to support the UK's efforts through our independent scrutiny of UK climate action. We will provide advice on UK production of oil and gas in the new year. We will deepen our monitoring of progress, aiming increasingly to identify real-world, policy-relevant, leading indicators of progress. We are also broadening our outlook to take in vital enablers such as public attitudes; business action; workers and skills; governance; and how costs and benefits are shared. We will also continue to monitor the UK's consumption emissions and consider the role of trade policies in reducing them.

We will also continue to support the International Climate Councils Network, launched at COP26, alongside our colleagues across the world. Science-based climate advisers enable delivery by feeding into overall strategies, supporting coordination across government and other actors, building consensus and monitoring implementation.

Box 1 summarises our COP26 stocktake. The rest of this briefing covers:

1. What did COP26 deliver?
2. How did COP26 move global climate ambition?
3. How can the UK help deliver the Glasgow Climate Pact?
4. CCC work to support implementation of the Paris Agreement

Box 1

Stocktake of progress at COP26

The Committee's stocktake of progress shows that the Paris Agreement is broadly working:

- **The world is committed to climate action.** COP26 demonstrated a strong global consensus on the need to tackle climate change and reflected the best available science, as communicated by the Intergovernmental Panel on Climate Change. The Glasgow Climate Pact strengthens focus on limiting temperature rise to 1.5°C and recognises the need for accelerated emissions reductions in the critical decade of the 2020s. It identifies key aspects including the need to scale up clean power and energy efficiency, to phase down unabated coal power generation and to phase out inefficient fossil fuel subsidies. The importance of fairness in the low-carbon transition was also clearly recognised.
- **The 'Rulebook' for the Paris Agreement has been completed.** Negotiations at COP26 finalised the architecture for the Paris Agreement, including for transparency of reporting progress and for trading of emissions reductions between countries.
- **The need for increased focus on adaptation has been recognised.** Some additional funding for adapting to current and future climate risks in developing countries was pledged at COP26 but much more will be required to adequately address climate change in those regions. In recognition of this need, a two-year process to further define and implement the Paris Agreement's global goal on adaptation was established and will be conducted between now and the global stocktake in 2023. Climate impacts are also expected to be a prominent theme of the next COP in late 2022.
- **Near-term emissions reduction ambition has advanced, but remains insufficient and will be revisited next year.** Some countries (including the UK) have significantly increased their ambitions for 2030, but others have not. Collectively, these ambitions remain well short of what is needed. The Glasgow Climate Pact accelerates the Paris 'ratchet' mechanism by requesting countries to revisit and strengthen their 2030 ambition next year as necessary to align with the Paris Agreement temperature goal.
- **Long-term emissions reduction ambition has aligned around Net Zero.** Reaching Net Zero emissions has been adopted as the standard goal across the vast majority of the global economy. These Net Zero targets, set for mid-century or in the following decades, largely reflect the requirements of the Paris Agreement. However, not all are clear on whether they cover CO₂ or all greenhouse gases, and as yet they have only been made legal targets and/or backed by credible delivery plans in a small number of countries (including the UK).
- **COP26 began to shift focus to implementation.** Various new initiatives and pledges were launched at COP26 that could help deliver existing ambition and go beyond it. These covered country-level commitments aiming for a global reach (e.g. the Declaration on Forests and Land Use and the Global Methane Pledge), private sector initiatives (e.g. the Glasgow Financial Alliance for Net Zero) and bilateral agreements to help individual countries transition (e.g. the Just Energy Transition Partnership with South Africa). Their success will depend on how they are implemented, as well as how their coverage broadens beyond initial signatories. There remain major areas that were not clearly addressed, such as the role of behaviour change to reduce emissions.
- **Climate finance flows to the developing world must increase in future.** Developed countries did not deliver by 2020 the \$100 billion per year of climate finance flows to developing countries pledged, albeit the target is expected to be met in 2022 or 2023. The Climate Finance Delivery Plan to achieve this as soon as possible and through 2025 was welcomed in the Glasgow Climate Pact, which also recognised that significantly more will be needed. UNFCCC processes on climate finance over coming years include establishing a new collective long-term finance goal by 2025, new commitments to double adaptation funding for developing countries by 2025 and a dialogue on 'loss and damage' from climate impacts in the developing world.

1. What did COP26 deliver?

The negotiations at COP26 culminated in the Glasgow Climate Pact and completion of the Paris Rulebook. Within and alongside these negotiations there was progress on mitigation (reducing emissions), adaptation (to the impacts of climate change) and finance (flows from developed to developing countries).

The Glasgow Climate Pact

The Glasgow Climate Pact recognises that climate impacts are being felt now, and resolves to pursue efforts to limit warming to 1.5°C.

The Glasgow Climate Pact is the key overarching decision text of COP26, which brings together elements agreed through formal negotiation and sets out a process for revisiting critical issues including 2030 ambition and finance:

- **The Pact recognises the severity of climate impacts above 1.5°C**, referencing the findings from the IPCC's Sixth Assessment Working Group 1 report¹ and resolving to pursue efforts towards 1.5°C. It states that this requires rapid, deep, and sustained emission cuts including cutting CO₂ emissions by 45% by 2030 compared to 2010. This is the strongest acknowledgment yet of the importance of the 1.5°C target.
- Noting that current NDCs put the world on course for emissions to rise by over 10% compared to 2010, **the Pact establishes a work programme to raise ambition and asks all countries to revisit their NDCs to ensure they align with the Paris temperature goal by the end of 2022** – introducing an annual high-level Ministerial to discuss pre-2030 ambition. This is a crucial mechanism for the prospects of 1.5°C, accelerating the previous five-year cycle for raising ambition.
- In response to the need to cut global CO₂ emissions, **the Pact calls on parties to phase down unabated coal power and phase out inefficient fossil fuel subsidies**. This is the first time fossil fuels have been explicitly referenced by a UN climate agreement. Other fossil fuels must also be significantly reduced to deliver the Paris temperature goal.²
- Referencing the IPCC's findings on climate impacts, **the Pact emphasises the urgent need for action and support to developing countries to adapt to climate change**. A new two-year 'Glasgow-Sharm el-Sheikh' work programme to better measure and implement the global goal on adaptation (enhancing adaptive capacity, strengthening resilience, and reducing vulnerability to climate change) was launched. The text also recognises the insufficiency of current adaptation finance provisions and **urges developed countries at least to double their pledges collectively** (by 2025 relative to 2019 levels) and for multilateral development banks (MDBs) to scale up provisions of finance.
- Similarly, **the Pact reflects that the \$100 billion finance goal promised by developing countries for 2020 has not been met**, stressing the need to meet this through to 2025 and then to go further in providing the finance necessary to deliver the goals of the Paris Agreement – including beginning deliberations over a post-2025 finance goal.³
- **The Pact acknowledges the issue of Loss and Damage and the urgent need to scale up action and support in response**, including through the operationalisation (and funding) of the Santiago Network to provide

The Pact starts new processes on raising ambition, adaptation, climate finance and 'loss and damage'.

technical assistance. It also established the Glasgow Dialogue to discuss arrangements for the funding of activities to avert, minimize and address loss and damage. Loss and damage is likely to be a focus at COP27 in Egypt.

The Paris Rulebook

The Paris Rulebook was completed at COP26, paving the way for consistent emissions reporting and for international carbon trading.

One of the most significant outcomes of COP26 was successfully completing the Paris Rulebook for implementation of the Paris Agreement. This resolved outstanding elements which have been under negotiation since 2015. Key agreements include:

- **Article 6 (Carbon Markets) creates a mechanism for the trading of emissions reductions** (and removals). Crucially negotiators secured agreement on how to avoid double counting and limiting the number of credits which can be carried over from the Kyoto Protocol's Clean Development Mechanism (CDM) (to around 0.17Gt CO₂e or less).⁴ These outcomes will help ensure the environmental integrity of international carbon markets and provide an avenue to strengthen mitigation ambitions. Further technical work will be undertaken to clarify arrangements for the effective operation of carbon markets and further consideration is needed on issues such as the inclusion of 'avoided emissions' (the Glasgow agreement covers emissions reductions and removals).
- **Article 13 (Transparency) clarifies standard reporting methodologies which will allow for reliable and consistent scrutiny** of all country's emissions, mitigation and adaptation actions and finance contributions. With the first set of reports due in 2024, developed countries must prioritise supporting developing countries to build the necessary capacity and tools to fulfil their requirements.
- Other outstanding elements of the Paris Rulebook which were agreed include:
 - **Article 4**, which calls on countries to submit their NDCs along common timeframes of five-year periods, five years in advance, starting from 2025 (covering 2030-35). This will help coordinate and compare increases in ambition over time.
 - **Article 14**, the arrangements for the Global Stocktake of all elements of climate action, the first of which will take place in 2023. This is a key part of monitoring progress and underpins the ratcheting principle of the Paris Agreement.

Mitigation outcomes

COP26 saw increases in global ambition to reduce emissions.

COP26 has increased overall global mitigation ambition through a combination of formally tabled Nationally Determined Contributions (NDCs), national-level commitments, and a number of multilateral pledges and declarations, and business-led alliances.

Updated 2030 Nationally Determined Contributions (NDCs) were largely submitted in the year leading up to COP26 with a small number submitted just before or during COP26. As with the first round of NDCs some have a range of mitigation ambition with greater reductions conditional on sufficient international support.

Net Zero is now the clear international norm for long-term emissions targets.

Side deals' at COP26 could help deliver on NDCs and potentially go beyond them.

Key sector deals covered coal, deforestation, methane and zero-emission vehicles.

Further national commitments to long-term Net Zero targets were made in the lead up to or at COP26. Notable commitments included India (2070 carbon neutrality), Nigeria (Net Zero 2060), Russia (2060 carbon neutrality), Saudi Arabia (Net Zero 2060), Vietnam (Net Zero 2050). Specifics of some of these commitments including their conditionality and whether they cover all greenhouse gases (GHGs) or only CO₂ remain to be clarified. These commitments would bring the nominal global coverage of Net Zero up towards 90% of global GHG emissions, if they all apply to all GHGs.⁵

Multilateral sectoral declarations and pledges bringing together groupings of countries and other organisation around a particular measure offer a route to coalesce sectoral action alongside national contributions and commitments. However, many initiatives currently lack support of key actors, are largely non-committal and lack detail on implementation. These pledges are not necessarily additional in ambition to the NDCs and commitments above (see section 2).

- **Phasing out coal.** 23 countries committed to phase out and not build or invest in new coal power, including some of the world's major coal users such as South Indonesia, Vietnam, South Korea, and Ukraine. \$8.5 billion was committed to support a just transition from coal in South Africa. Similar financial and support packages should be explored for other coal users where appropriate, and efforts re-doubled to secure similar commitments from the likes of Australia, China, India and the US.
- **Deforestation:** Over 100 countries representing 85% of the world's forests (including Brazil, Indonesia, DRC and Russia) committed to halt and reverse deforestation and land degradation by 2030. This is effectively a recommitment to the long-term goal of the 2014 New York Declaration - which has not seen progress to date - but with major players now signed up. This new initiative is also backed by \$20 billion in public and private finance over five years and support for wider supply chain reforms towards sustainable commodity trade. To succeed where previous pledges have failed, more funds will be required (e.g. the Energy Transitions Commission estimated up to \$200 billion per year)⁶ while further means to ensure compliance should be explored, such as through trade measures similar to the EU's anticipated ban on key deforested commodities.
- **Methane:** Led by the US and the EU, over 100 countries - representing 45% of global methane emissions - signed the Global Methane Pledge to reduce 2030 methane emissions by 30% on 2020 levels, by improving standards, technology, and methods in key sectors including energy, waste and agriculture. The initiative currently does not include some of the world's largest methane emitters such as Russia, Iran and China and similar to the deforestation pledge, is self-governed, so further work should be done to strengthen compliance. Methane is also identified as a key area for collaboration in the US-China Joint Glasgow Declaration, in which China commits in addition to its NDC to develop a National Plan for reducing methane in the 2020s.
- **Shifting to Zero Emission Vehicles:** 28 countries, as well as a number of state-level actors and car manufacturers, covering 40% of the global car market, signed a declaration to ensure that all sales of new cars and vans are zero emission by no later than 2040, or 2035 in 'leading markets'. The initiative fell short of securing most of the major car markets and manufacturers and will have limited additional impact unless more of these can be brought onboard.

Further side deals could support progress through affecting capital availability, technology development and fossil fuel supply.

- **Phasing out overseas support for fossil fuels:** The G7, G20 and OECD had committed to end public finance for unabated coal power projects overseas coming into COP26, including the three biggest financiers: Japan, South Korea and China. At and leading up to Glasgow, 30 countries signed a commitment to phase out public international support for all unabated fossil fuel energy by 2022, including the UK, Canada and the USA. Key financiers including China, Japan and South Korea have not signed up, while funding for domestic fossil fuel projects must also be phased out.
- **Glasgow Breakthroughs:** 41 countries plus the EU endorsed an initiative to work together internationally this decade to accelerate the development and deployment of clean technologies including in power, transport, steel and hydrogen, with annual progress reporting led by the International Energy Agency.
- **Beyond Oil and Gas Alliance (BOGA)** is a coalition of countries committing to end new licensing rounds for oil and gas production, with an associate level for countries aiming to phase out oil and gas production. The membership does not include the UK or other significant oil and gas producers. Wales is a signatory.
- **Steel and concrete:** The UK, Canada, Germany, and UAE agreed to work together to create new markets for low-carbon steel and concrete through pledging to achieve Net Zero in public construction usage by 2050.
- **Sustainable Agriculture and Land Use:** Led by the US and UAE, over 30 countries signed on to the Agriculture Innovation Mission for Climate (AIM4C) pledge which will commit \$4 billion of public investment towards climate-smart agriculture and innovation in food systems. In addition, 26 countries, including Brazil, Germany and the UK, set commitments to change agricultural policies towards more sustainable and less polluting land use.
- **The US and China published a joint declaration on enhancing climate action.** This strengthens cooperation on emissions reductions in multiple sectors, including on methane, between the world's two largest economies and emitters – between them responsible for around 40% of present annual GHG emissions.⁷

New business initiatives were announced at COP26, which could also support further action.

Business Alliances of corporations committing to Net Zero, aiming to set Net Zero investment standards or create low-carbon markets were also announced or formalised at COP26. These included the following.

- The **Race to Zero** campaign has over 5,000 businesses committed to reaching Net Zero GHG emissions by, or before 2050, supported by early action and regular reporting. Around half of these were UK businesses, including a little over half of the FTSE100.
- **Glasgow Financial Alliance for Net Zero (GFANZ)**, a global grouping of 450 financial institutions, committed to improve the alignment of their investments towards Net Zero by 2050 and to work to standardise approaches to transition plans and portfolio disclosure. There is scope for this sort of commitment to have far-reaching impacts given the clear need to increase significantly private sector financial flows to renewable energy and other low-carbon investments in developing countries and at a low cost of capital, while directing investment away from fossil fuel use, especially coal-fired power in the near term.

- The **First Movers Coalition** was launched to enable companies looking to use their collective purchasing power to pull to market new and emerging low-carbon technologies and services in emissions-intensive sectors including aviation, shipping, trucking and steel.
- **Other developments** include: the **International Sustainability Standards Board (ISSB)** to develop global sustainability disclosure standards to ensure investors have comparable and robust information on corporate sustainability performance, and the **Net Zero Standard** published by the Science Based Targets initiative which substantially reduces the allowed offsetting, and increases the focus on scope 3 emissions in long-term targets.

Some important themes had relatively less attention at COP26 but remain important: aviation, car use, diet change and resource efficiency.

The above initiatives cover many of the key priorities identified in global emissions pathways consistent with the Paris Agreement (e.g. coal power, deforestation, methane, zero emission vehicles). This reflects that the UK Presidency sought to concentrate global efforts around a small number of key issues at COP26. However, there are a number of important issues that were not on the agenda at COP26 that nevertheless require concerted action to deliver Net Zero globally, particularly those associated with demand reduction and behaviour change:

- **International aviation.** International aviation accounts for 2-3% of annual global GHG emissions, comparable to the emissions produced by countries within the top ten biggest global emitters.⁸ The climate impacts of aviation go far beyond its GHG emissions – contrails, NO_x emissions and other factors that are outside of the Paris Agreement's emissions accounting framework (referred to as 'non-CO₂' effects) will also result in warming impacts.⁹
- **Car use.** Private cars and other passenger road vehicles account for 45% of worldwide transport emissions, and these emissions have risen considerably over recent decades. To reverse this, support for active travel and public and shared transport will be needed alongside the transition to zero-emission vehicles. This can deliver emissions reductions sooner than the uptake of zero-emission vehicles alone and would also offer a range of co-benefits, including better air quality, reduced congestion and improved public health.
- **Diet change.** Despite several important pledges relating to agriculture and land use, food and diet were largely not addressed. Food systems contribute 21-37% of total net GHG emissions¹⁰ and have risen by 17% since 1990. Analysis of countries' NDCs has highlighted that focus is typically on the supply side with significant commitment gaps on dietary shift.¹¹ Moving towards sustainable diets offers opportunities to reduce emissions at source, release agricultural land for carbon sequestration, reduce pressure on land for deforestation and offer wider co-benefits including for public health, biodiversity and air quality.
- **Resource efficiency.** Resource extraction and production is key driver of global greenhouse gas emissions (and biodiversity loss), with the UN estimating that extraction and processing of materials, fuels and food contribute half of total global greenhouse gas emissions.¹² Demand for resources is highly unequal between developed and developing countries, is rapidly increasing and will be intensified as the world moves to Net Zero – with critical resources such as cobalt and lithium in increasingly high demand. Resource efficiency measures offer a route to reduce demand for virgin resources and associated emissions.

Adaptation outcomes

Adaptation made slower progress at COP26, despite being a vital priority particularly in the developing world.

There were several adaptation outcomes presented at COP26 in addition to those commitments mentioned above as included in the Glasgow Climate Pact:

- **UNFCCC Adaptation Fund.** The Adaptation Fund was established to fund adaptation projects and programmes in developing countries. \$230 million was committed to the Adaptation Fund ahead of and at COP26, more than twice as large as any previous single capitalisation round. The final Paris Agreement rulebook also decided that a 5% 'Share of Proceeds' from sales of emissions credits under Article 6.4 would go towards the Adaptation Fund, although this will only apply to the proceeds from trading of voluntary credits rather than national transfers under Article 6.2. Expected funding levels for adaptation still remain very far short of those estimated to be needed to adapt to current day climate impacts – with further increases inevitable.¹³
- **Race-to-Resilience.** Private sector investment will be essential to fund effective adaptation actions at scale. The UN backed 'Race-to-Resilience' campaign aims to increase the alignment of businesses and sub-national entities with increasing climate resilience by accrediting organisations who meet minimum criteria. This initiative is linked to the UN process through the high-level climate champions for climate action. This initiative added new partner organisations at COP26 and announced a framework for measuring progress to improving resilience amongst member organisations.
- **Adaptation Research Alliance.** In many parts of the world taking evidence-based actions to improve climate resilience is hampered by a lack of good data sources on past and present local weather hazards and their impacts. The UK led the launch of the Adaptation Research Alliance, an initiative with over 100 research institutes and research funders making commitments to support action-oriented research on climate change adaptation.

These initiatives will help close some of the gap between current actions and those needed to adapt effectively to present and future climate risks, but many remain. Fewer than half of signatories to the Paris Agreement (88 countries) have submitted Adaptation Communications to the UNFCCC (detailing the adaptation actions they are taking to address climate risks) as requested under Article 7 of the Paris Agreement – despite a significant increase in this number over the last year.

2. How did COP26 move global ambition?

COP26 marks the end of the first ratchet cycle of the Paris Agreement, which has seen a material increase in ambition and significantly reduced risks of global temperature rises of 3°C, 4°C or more.

A path to limiting global temperature rise to below 2°C can now be seen, but relies on stronger ambition and delivery this decade.

At best, this ambition suggests the Paris target of well-below 2°C might be coming into view, but ambition falls far short of that needed to reach 1.5°C. Current policies put the world on course for expected warming of 2.7°C.

Urgent increases in ambition, backed by policy and delivery, are needed in the decade to 2030. COP26 has laid out some possible routes towards this required strengthening of ambition.

Background: global ambition at the time of the Paris Agreement

Material progress has been made since the Paris Agreement, when warming of 3-4°C was expected.

In the lead-up to the 2015 Paris Agreement at COP21, global GHG emissions were expected to continue rising, leading to high risks of warming above 4°C. According to Climate Action Tracker (CAT), climate policies in 2015 put the world on course for 3.6°C of expected warming (50% probability) by the end of the century.

The Nationally determined Contributions (NDCs) submitted in Paris in 2015 would have brought expected warming down to 2.7°C if delivered and followed by similar commitments.¹⁴

Overall ambition has ratcheted up

A key aspect of the Paris Agreement is referred to as the ratchet mechanism, whereby countries are invited to revise their targets on a five-year cycle with a view to continually raising ambition to align to the Paris temperature goals. COP26 marked the first ambition raising milestone of the Paris cycle, with countries invited to submit updated and strengthened NDCs for 2030 in advance of the summit.

Current policies leave the world on track to 2.6-2.7°C of global temperature rise. Full delivery of the latest NDCs would bring expected warming down to 2.4°C.

A number of early analyses, notably from the United Nations Environment Programme (UNEP),¹⁵ International Energy Agency (IEA)¹⁶ and CAT¹⁷ have estimated the impact of the COP26 NDCs, commitments and sectoral pledges on the global emissions trajectory and therefore expected temperature increases (Figure 1A).

- Projections of present policies and associated roll-out of lower-carbon technologies and practices are projected to lead to a gradual flattening and subsequent decline of global emissions resulting in an estimated 2.6-2.7°C (50% likelihood) warming by the end of the century. A study aiming to identify the uncertainty around the estimated impact of policies suggested a range for expected warming from present policies of 2.2-2.9°C.¹⁸
- The updated synthesis of 2030 NDCs (conditional and unconditional) following COP26 suggests slightly lower emissions if they are delivered. This would reduce expected warming to 2.4°C by the end of the century. Wider uncertainty over how the climate responds to GHG emissions suggest this would still bring a 20% risk of warming above 3°C and a less than 2% risk of 4°C (Figure 1B).¹⁹

Long-term ambition has markedly improved since Paris, with Net Zero now being widely adopted as the standard long-term goal (approaching 90% global emissions coverage). If delivered, these commitments would bring a further lowering of expected global temperature rise.

- While an increasing number of Net Zero targets are being set into national laws, many remain commitments and do not yet specify whether they are Net Zero CO₂ only or all GHGs (the latter is more challenging and in most instances will require net-negative CO₂ emissions). Without corresponding increases in 2030 ambition, these long-term targets cannot all be considered credible – the Glasgow Climate Pact also notes the importance of aligning NDCs with long-term goals. We note that the UK set its Net Zero target before strengthening its near-term targets to match, which implied almost a doubling in the speed of progress targeted.
- UNEP, IEA and CAT have estimated the effect that this long-term ambition would have on end of century warming if delivered in addition to the 2030 NDCs. Their central estimates are for end of century expected warming of 1.8°C, although CAT estimate an earlier peak expected warming of 1.9°C and the IEA estimate includes the effect of the Global Methane Pledge (see below, this reduces expected temperature by around 0.1°C). The risks of warming over 3°C would be cut to less than 5%.²⁰
- These 'face value' assessments of ambition include all conditional aspects of NDCs and assume that Net Zero Targets, unless stated otherwise, cover all GHGs. There are also a number of small analytical differences including the projected policies estimates for 2030 emissions, the rate at which emissions fall to meet the Net Zero targets and the projection of emissions beyond 2070 (e.g. holding the remaining around 10% of global emissions not covered by Net Zero Targets constant to 2100 or assuming that global emissions trend to Net Zero GHGs by the end of the century).

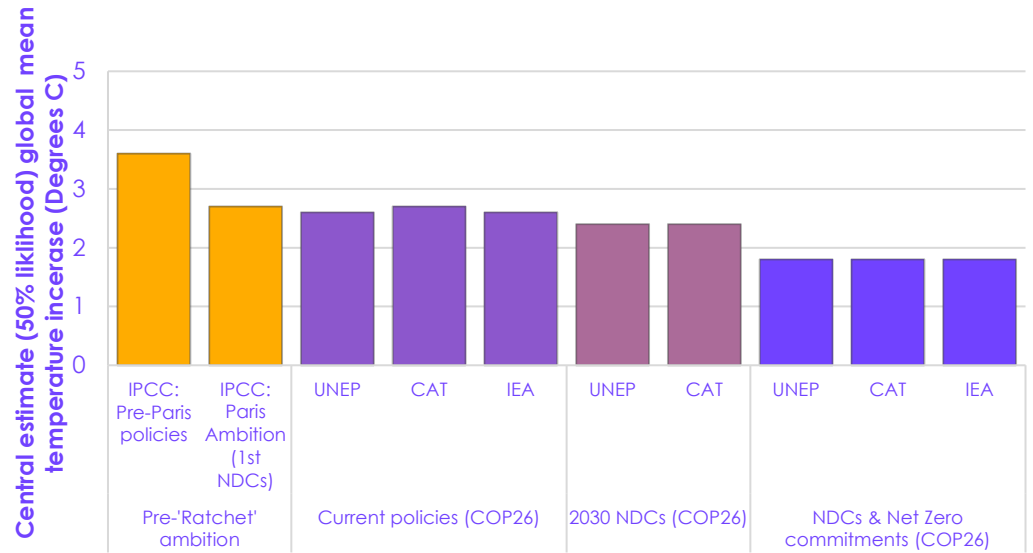
If all announced Net Zero targets are delivered as well as all NDCs, expected warming could be just below 2°C.

These targets cannot be considered credible until accompanied by stronger near-term plans, and in any case would still fall short of the Paris Agreement goal.

This is material progress since the Paris Agreement, reducing the expected warming from existing policies by almost 1°C and almost eliminating the risk of warming of 4°C. But this is not yet enough to deliver the temperature goal in the Paris Agreement.

Figure 1. Global ambition has increased since Paris.

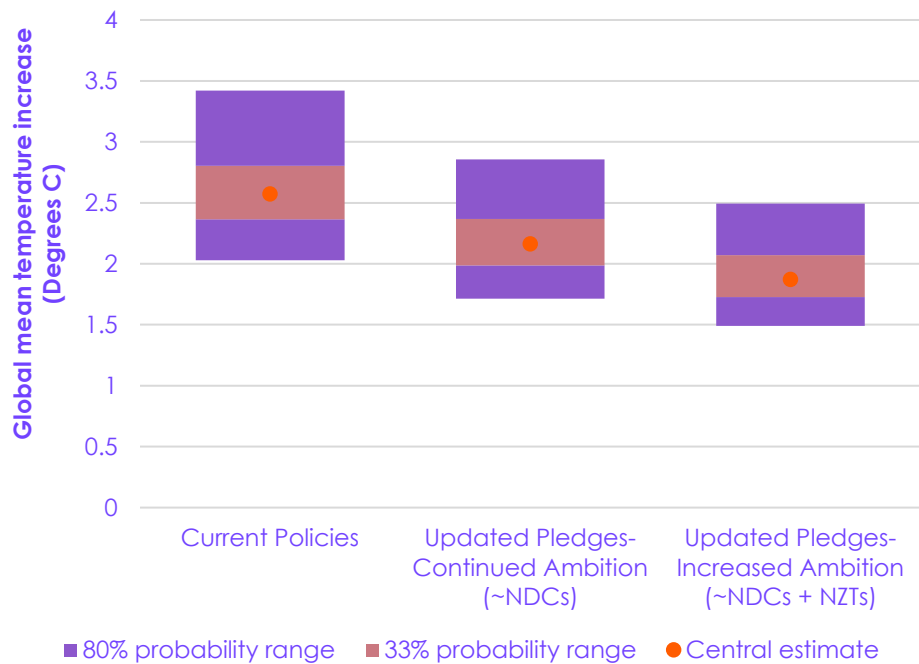
Figure 1A Updated policies, NDCs and Net Zero targets have reduced expected warming since the Paris Agreement



Source: Fig 1A: IPCC, UNEP, CAT, IEA.

Note: IEA NDCs and Net Zero central estimate includes contribution from methane pledge. The probability ranges show the probability that estimates will fall within a given range about the central estimate.

Figure 1B There are significant uncertainties over central estimates for expected warming



Source: 1B based on Ou et al (2021) Science 2021 <https://doi.org/10.1126/science.abl8976>

The 1.5°C target risks slipping out of reach

Full delivery of NDCs would see global emissions fall to 2030, but not enough to keep 1.5°C in reach.

The world has already warmed by 1.1°C, and current emissions are adding around 0.2°C per decade. Full delivery of the new NDCs (conditional and unconditional) would reduce the emissions gap to 1.5°C in 2030 by 15-17%.²¹ Unless much greater emissions reductions can be achieved by 2030, the world is very unlikely to be able to meet the 1.5°C goal, even if all Net Zero ambitions are delivered in full, and replicated by countries yet to set a Net Zero goal.

This was recognised in the Glasgow Climate Pact, which stated that global CO₂ emissions would need to fall by 45% from 2010 to 2030 and to Net Zero by mid-century to limit global temperature rise to 1.5°C.

Every additional action to limit warming closer to 1.5°C matters.

Every 0.1°C avoided reduces climate change impacts. Least Developed Countries and Small Island Developing States are already suffering major impacts. Impacts at 1.5°C will be more severe than present, and at 2°C warming many regions will experience considerable and damaging climate change impacts including extreme weather and associated detrimental effects on water availability and food production.

COP26 has opened a door to increases in ambition

COP26 initiated various processes that could cut emissions further to 2030.

Several COP26 outcomes, in both the formal UNFCCC process and the sectoral/business pledges, might be able to increase both ambition and crucially delivery this decade and help close the gap towards 1.5 °C.

- **Strengthening NDCs.** The Glasgow Climate Pact requests countries to revisit and strengthen their 2030 NDCs by the end of 2022, and countries are further requested to submit their next round of NDCs (covering 2030-2035) in 2025. The agreement on Article 6 (carbon markets) may allow countries to further increase their ambition.
- **Securing long-term targets** by clarifying (CO₂ or all GHGs) and cementing Net Zero commitments in national frameworks and as submitted Long Term Strategies under Article 4 of the Paris Agreement. Efforts can also be made to reach full global coverage of Net Zero Targets – IPCC 1.5 °C pathways reach Net Zero GHGs globally around 2070 and Net Zero CO₂ around 2050.
- **Sectoral pledges and declarations** provide potential routes to pursue greater ambition and delivery among coalitions of the willing, without requiring full endorsement from all Parties to the UN process. Maximum estimates of their potential to further reduce emissions in concert with NDCs by 2030 (and as far as possible avoiding double counting) are that taken together they could reduce GHG emissions by 20-25% from 2030 'current policies' emissions (see Box 1), implying a reduction to 2030 of around 20-25% from 2019 emissions and around 15-20% from 2010 emissions.²² The South Africa Just Energy Transition Partnership has strong potential as a model that could be replicated elsewhere.

Their success will determine how close the world gets to 1.5°C and how far climate impacts intensify.

How close the world gets to the 1.5°C goal will depend on the success of these processes, and the extent to which they are additional rather than overlapping. The Glasgow Climate Pact points to 1.5°C needing a 45% reduction of CO₂ emissions from 2010 levels by 2030 (a halving of emissions from today's levels) and deep reductions in non-CO₂ GHGs. This needs to be followed by reaching Net Zero CO₂ by around 2050. Weaker 2030 emission reduction will lead to temperatures peaking substantially above 1.5°C with an increase in climate impacts and further irreversible changes in the climate.²³ To reduce warming after its peak will require

substantial CO₂ removal bringing technological, sustainability and fairness challenges and risks leading to a more expensive and more disruptive transition to Net Zero emissions.²⁴

Box 1

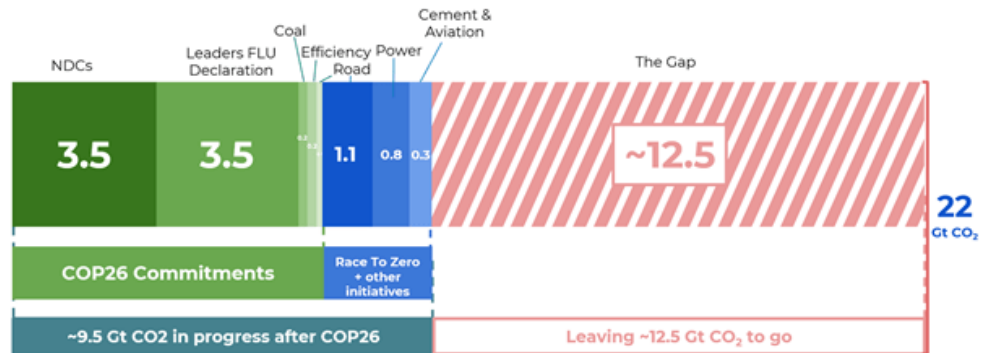
Can sectoral pledges and declarations help reduce emissions further to 2030?

The sectoral pledges and declarations made at COP26 sit outside the formal UN system of NDCs. Early analyses have tried to estimate if they could bring additional mitigation by 2030 compared to the NDCs.

The Energy Transitions Commission (ETC) has estimated that if all signatories to the methane pledge achieved its 30% reduction this could result in ~48 MtCH₄ below the 2030 baseline estimate (48 MtCH₄ is ~1.3GtCO₂e). This is around 40% of the 130 MtCH₄ reduction they estimate to be in line with 1.5°C. The NDCs, forest, coal, transport and power sector pledges are estimated together to bring up to 9.5 GtCO₂ reductions, reducing the 2030 CO₂ emissions gap to 1.5°C by about 40% (Figure B1).

Figure B1 Energy Transitions Commission (2021)
Assessing the commitments from COP26

To keep 1.5C alive, annual CO₂ emissions in 2030 need to be 22 Gt lower than BAU
At end of COP26, commitments (if delivered) would close that gap by 9.5 Gt*



*According to new analysis from the Energy Transitions Commission

Source: Energy Transitions Commission (2021) *Assessing the commitments from COP26* <https://www.energy-transitions.org/assessing-the-commitments-from-cop26/>

An assessment by Climate Action Tracker of the sectoral pledges has lower estimates of the likely reductions at 2.2 GtCO₂e additional to NDCs, with a maximum of around 8GtCO₂e (including assuming global coverage of the methane pledge).

While not directly comparable (the assessments do not cover exactly the same measures) these suggest that even at maximum potential sectoral pledges and NDCs together would reduce 2030 emissions by around 20-25% from the 'current policies' baseline, at most under half of that identified as consistent with 1.5°C.

These pledges and declarations are yet to be translated into full implementation plans, so it is impossible to say yet what they will deliver. For the higher estimates of what they could deliver to occur there will need to be strong governance supporting delivery, strong delivery mechanisms and in some cases expanded coverage of signatories and commitments.

Source: CAT (2021) 'Glasgow sectoral initiatives currently close the 2030 emissions gap by 9%' https://climateactiontracker.org/documents/1002/CAT_2021-11-11_Briefing_GlasgowSectorInitiatives.pdf
Notes: Methane to CO₂e is calculated on a 100yr GWP-basis

3. How can the UK help deliver the Glasgow Climate Pact?

The success of COP26 will be determined by what happens next. The UK should continue to play a leading role.

As well as increasing ambitions, COP26 must mark a shift towards a new phase of implementation and action. The UK, as President for the next year, has an important role in spearheading this shift globally, through the formal UN process of revisiting of NDCs, and by driving forward the various international initiatives that were launched at COP26. Another vital role for the UK is to provide a positive example of what is needed globally – translating its long-term Net Zero goal into credible near-term targets and then developing and implementing effective policies to meet them.

This section considers both international and domestic actions for the UK following COP26.

UK international action and the Glasgow Climate Pact

The UK has played an important global leadership role on climate for many years. The strong global commitment seen at COP26 to the Paris Agreement, to the science of the IPCC and to the need to reach Net Zero emissions shows that the UK is not acting alone. It should continue to play a leadership role through the remainder of its COP Presidency and beyond. This in turn will support the UK's climate goals at home.

While COP26 itself has concluded with the Glasgow Climate Pact and associated declarations and pledges, the UK retains the COP Presidency for the year through until COP27 in Egypt. The UK therefore has responsibility to see that the commitments made at COP26 are delivered. We identify the following priorities:

A vital priority after COP26 is to make the most of the window to increase ambition further in the coming year.

- **Raising 2030 ambition.** The Pact accelerated the ratchet mechanism, aiming to strengthen 2030 ambition in NDCs over the coming year. The UK should work with the incoming Egyptian Presidency to support increased ambition, particularly from those countries whose Net Zero pledges are yet to be reflected in near-term ambition.
 - The Pact requested Parties to “*revisit and strengthen the 2030 targets in their nationally determined contributions as necessary to align with the Paris Agreement temperature goal by the end of 2022, taking into account different national circumstances*”.
 - This means that the countries yet to increase their ambition or where their ambition is not aligned to the Paris temperature goal need to set more ambitious 2030 targets. Of the G20, Climate Action Tracker's assessment identifies the following countries as having Domestic Targets (i.e. NDCs) in line with warming of over 2°C: Argentina, Australia, Brazil, China, India, Indonesia, Mexico, Russia, Saudi Arabia, South Korea, Turkey.²⁵
 - For those like the UK (see below) that have submitted targets aligned to the Paris Agreement's temperature goal it may primarily mean bringing forward policies to deliver them and strengthening other aspects. CAT's analysis suggests that current policies are not yet enough to deliver the 2030 targets for the rest of the G20 covered by their assessment (Canada, the EU, Germany, Japan, South Africa, the UK, the US).

Climate finance commitments must be met in the coming period.

- The UK should explore other diplomatic and trade levers to encourage stronger global ambition, including the role of Carbon Border Adjustment Mechanisms (CBAMs), the alignment of standards and suitability of multilateral trade agreements such as the Agreement on Climate Change, Trade and Sustainability (ACCTS).²⁶ Further opportunities for the UK to support global action are set out in Box 2 below.

- **Ensuring that commitments made to developing countries are delivered** including overseeing delivery of \$100 billion by 2023 and a doubling of adaptation finance, brokering discussions over the post-2025 finance goal and facilitating a constructive dialogue on Loss and Damage.
 - The UK should consider its own role in these global goals, including how it will increase climate finance contributions in future, continuing to deliver a broadly 50/50 split between mitigation and adaptation spend and working with Multilateral Development Banks to strengthen their contribution.
 - Noting that climate change impacts all aspects of development, the UK should restore its commitment to spend 0.7% of GDP on Overseas Development Assistance as soon as possible, certainly by its announced expectation of 2024/25.
- **Putting the Paris Rulebook into action.** Now that the Paris Rulebook has been agreed, the task to operationalise it must begin – including capacity building to support developing countries to meet their obligations (e.g. on transparency and reporting).
- **Oversight and championing of sectoral pledges.** Clarifying governance and delivery mechanisms for sectoral pledges which sit outside of the Paris architecture, including Deforestation and Methane. Using Glasgow as a springboard to build stronger coalitions on coal and ICE phaseout.
- **Supporting others to reduce emissions and strengthen adaptation.** Through the UK's International Climate Finance and international diplomacy, work with countries to implement new Net Zero commitments and adaptation goals by sharing UK expertise and building capacity. Explore further multilateral opportunities, particularly through the G7 to provide bespoke packages to support just transitions and accelerated emissions reductions in other countries, building off the innovative South Africa Just Energy Transition Partnership. Promote the role of Climate Councils in guiding effective action as part of robust climate governance frameworks.

The UK can act as a champion for the new sectoral pledges, especially working on effective rules and governance.

Fulfilling these duties will require the UK to build on, rather than dissolve, its international climate diplomacy and activities, which were praised for their efforts in Glasgow. This means ensuring clear ownership of what was agreed at COP26 as well as continuity of people, resources and leadership. The effectiveness of the COP Unit providing a central coordinating role could serve as a good example for the UK Government's role driving the UK's domestic efforts to reach Net Zero.

More broadly, our previous work has identified a range of international leadership opportunities for the UK which remain relevant (Box 2).

Box 2

Opportunities for the UK to support the global effort to raise ambition

This piece of independent work commissioned by the Committee from Vivid Economics to support its work on the Sixth Carbon Budget developed a categorisation of actions for how a developed country such as the UK can support the global effort to raise ambition:

- **Demonstrating Net Zero:** Ambitious domestic emissions reductions can help develop technologies and bring their costs down.
- **Diplomatic influencing:** Accelerating decarbonisation efforts around the world through formal and informal diplomatic channels, including multilaterally (e.g. through the UNFCCC) and bilaterally.
- **Trade measures:** Implementing carbon pricing and/or product standards on imported products through trade deals could provide an incentive to accelerate the decarbonisation of global production processes.
- **Capacity building:** Providing technical assistance to other countries to help develop their capacity and capability in introducing climate mitigation solutions.
- **Direct financial support:** Financial transfers to directly fund the deployment of low and Net Zero carbon technology elsewhere in the world.
- **Action on overseas supply chains:** Addressing the overseas emissions 'embedded' within global supply chains of products consumed by the UK.

The most effective ways to assist global decarbonisation will vary across key 'wedges' of the global transition. For example, areas with more global interconnectedness will likely have a greater role for trade-related levers, while capacity building will be essential where there are large non-cost barriers to overcome. The report identified a wide range of actions that developed countries could take to support important parts of the global transition in a 'leadership-driven' scenario. These include capacity building to help enable the rapid shift to stable high variable renewable electricity systems in the developing world, coordinated trade measures by developed countries to develop large markets for low-carbon manufactured products and drive changes in production methods elsewhere in the world, and setting high standards for the global trade of biomass and carbon removals and offset credits to ensure that these deliver true benefits for the climate. For the UK specifically this report highlights opportunities in:

- Coal phase out diplomacy. Rapidly ending power generation from coal is the single biggest contributor to aligning global trajectories with those expected to deliver on the Paris Agreement, requiring retirements in Asian countries with young coal fleets. The UK can help others learn from its own experience doing this.
- Building on UK experience to help offshore wind to play a large role in global low-power generation.
- Leading the development of CCS and low-carbon hydrogen technologies given the UK's access to geological carbon storage, expertise base, and offshore wind resource.
- Leading on developing a Net Zero framework and pathway for aviation given the UK's high per person aviation emissions.
- Developing GHGs removals incentives and sustainability standards. The UK is expected to be among the first countries to deploy key new technologies for greenhouse gas removal at large-scales, including bioenergy with carbon capture and storage (BECCS).
- Green recovery and greening the UK financial sector. The UK is one of the leading providers of international climate finance to developing countries. The UK should use its position as a global financial sector with substantial cross-border investment to help drive financial sector reform to provide the necessary shift in private sector investment.

These opportunities are not unique to the UK, but the UK could be well placed to significantly contribute to all of them.

Source: Vivid Economics (2020) *Unpacking leadership-driven global scenarios towards the Paris Agreement*.

UK domestic mitigation action in light of the Glasgow Climate Pact

The model of the UN talks is that, following COP26, the Parties to the Agreement take actions at home to contribute towards the agreed global objectives. Having presided over the talks the UK has a particular responsibility to deliver quickly and transparently on the actions implied by all the main areas agreed at COP26. In many cases the UK is already well advanced and delivering against the priorities of COP26, but some areas may need revisiting/further action:

- The **UK 2050 Net Zero target** set in 2019 is aligned with the Paris Agreement. Faster progress on emissions reduction technologies and low-carbon practices (e.g. as modelled in the 'Tailwinds' scenario of the Committee's Sixth Carbon Budget advice) could make it possible to reach Net Zero by 2045, but the Committee does not recommend revising the target at this stage.
- The **UK 2030 NDC** for a 68% reduction in emissions from 1990 to 2030 is one of the most ambitious NDCs tabled ahead of COP26. At this time, we recommend that the UK focuses on robust implementation of policies to deliver the NDC, rather than developing a new target to replace it, and seek ways to supplement current plans, including by taking more action to tackle its consumption emissions.
 - The UK NDC involves a larger reduction in CO₂ emissions (around a 55% reduction from 2010 to 2030, excluding international aviation in line with UN convention) than global scenarios consistent with 1.5°C (-45% from 2010 to 2030) and involves earlier, faster deployment of low-carbon solutions than those scenarios. It is therefore clearly consistent with the Paris Agreement, recognising the need for developed countries to do more. It has been set based on independent advice and detailed analysis designed to reflect the UK's highest possible ambition. In Climate Action Tracker's assessment of domestic targets for 40 of the highest-emitting countries and the EU, the UK is the only one with a 2030 target considered to be compatible with 1.5°C.
 - A prolonged review of the UK's 2030 target is unlikely to uncover opportunities to significantly strengthen the target. Actions in the Committee's Balanced Pathway that are not in the Net Zero Strategy might add only 1-2 percentage points. However, such a review could delay and distract from plans to meet the target set out in the Net Zero Strategy. More importantly, the UK does not yet have all the policies in place to deliver its existing ambition.
 - It will be important therefore for the UK to demonstrate its support for more global action to 2030 by strengthening its policy to deliver its existing 2030 target. That should be done first and foremost by rapidly and robustly implementing the policies proposed in the Net Zero Strategy.
 - Rolling out the Net Zero Strategy must lead to emissions falling in all sectors (i.e. going beyond recent progress dominated by the power sector). While we assessed the Strategy as strong overall, we identified the need for implementation to follow quickly and for clearer plans on agriculture policy. We also identified a gap on behaviour change (e.g. shifting diets away from meat and dairy and limiting aviation demand growth), which could provide a route to slightly greater emissions reductions.

Any strengthening of the UK's NDC should focus on implementation rather than increasing the headline target.

Delivering the Net Zero Strategy is a key priority for the UK.

- Alongside tackling behaviour change, actions to address consumption emissions (i.e. including emissions embedded in imports) could include: encouraging corporate action on supply chains and voluntary offsetting; and product standards, carbon border adjustment mechanisms and trade levers. The latter are also important for maintaining UK competitiveness as trade-exposed industries decarbonise.
- Technical options for strengthening the UK's NDC include making it legally binding, clarifying that it will be met without offsets and with a limited role for CO₂ removal, and including the sector targets set out in the Net Zero Strategy.
- The **UK 2035 NDC** must be submitted by 2025. The Sixth Carbon Budget is expected to be the basis, which implies a 78% reduction in emissions from 1990 to 2035 (including emissions from international aviation and shipping, it implies an 82% reduction excluding these sectors, as is UN convention). The budget is intended to be met entirely through UK domestic action, without international carbon credits.
- **Coal phase-down** for power generation in the UK is nearly achieved and will be completed by 2024. Reflecting that all unabated use of fossil fuels needs to be phased down, the UK Government has committed to power sector decarbonisation by 2035 with phase-out of unabated gas-fired generation – making progress here is important international leadership. The Government has said it will consider setting a target for steel to be zero-carbon by 2035.
- **Fossil fuel subsidies.** The Glasgow Climate Pact calls for accelerating efforts towards the phase-out of inefficient fossil fuel subsidies. The interpretation of this is not straightforward, as there is no single definition of a subsidy, nor of what constitutes an inefficient subsidy. The Committee does not consider that any fossil fuel subsidies should be classed as 'efficient' in the UK, given that other mechanisms are available to support vulnerable consumers with their fuel bills (e.g. improving energy efficiency and transfer payments like the Warm Homes Discount). As a proactive response to the Glasgow Climate Pact commitment, the Treasury should undertake a review of the role of tax policy in delivering Net Zero, building on the recent Net Zero Review:
 - Under the UK Government's narrow definition of a fossil fuel subsidy – government action that 'lowers the pre-tax price to consumers to below international market levels' – the UK does not have fossil fuel subsidies.²⁷ The World Trade Organisation's definition is wider and considers all public financial support that provides a selective advantage as a subsidy.²⁸
 - 'Post-tax' subsidies, a concept put forward by the International Monetary Fund, count any failure to fully factor in the costs of fossil fuels (including their impact on climate change) as a subsidy.²⁹ By this definition, reduced VAT and the lack of a carbon price on gas and other fossil fuels used for heating buildings, and the lack of VAT or a carbon price on aviation fuel are all post-tax subsidies.
 - If the tax system is to support the transition as it should, a higher and more consistent carbon price across the economy will be needed, which would also remove post-tax subsidies. The UK Government is

The Treasury should undertake a full review of the role of the tax system in delivering Net Zero aiming for higher and more consistent carbon pricing across the economy.

taking steps which will address some of these de-facto subsidies. These include a commitment to review the imbalance between gas and electricity prices, set out in the Heat and Buildings Strategy, and plans to review the scope of the UK Emissions Trading Scheme to potentially expand the reach of carbon pricing across more sectors of the economy.

– These steps will go some way in addressing the issue of fossil fuel subsidies, but a more systematic review of taxation and carbon pricing including consideration of post-tax subsidies, should be undertaken by the Treasury. For example, where there are other payments in place, such as for fuel poor households, the Government's target to upgrade the efficiency of all fuel poor households by 2030 provides an opportunity to phase these out over time, providing this can be done in a way which does not disadvantage them in the near term.

- **Methane.** The Committee's scenarios to hit the UK's NDC and Sixth Carbon Budget involve a 32% methane reduction from 2020 to 2030, in line with the Global Methane Pledge. The Government's Net Zero Strategy adopted similar ambitions across the economy, but did not split out the trajectories for different gases – that should now be made explicit. Agriculture accounts for just under half of all methane emissions in the UK so the Government should set out how it intends to address these emissions, with scope for greater action including through diet change.
- **Beyond Oil and Gas.** The Committee is currently considering the implications of international and UK emissions reduction commitments for oil and gas production in the UK and will report on this shortly. Wales has already signed up to the initiative.
- **Low-carbon purchasing.** The UK joined India, Germany, Canada and UAE in a new initiative on public procurement of low-carbon steel and concrete, which commits the countries to Net Zero embodied emissions in major public works by 2050, and disclosure of emissions from 2025. Interim 2030 targets are being developed next year. This could be a useful contribution towards UK and international decarbonisation, but complementary supply-side policy will be necessary to enable the Government's industrial decarbonisation ambition.
- **Deforestation.** The UK was largely deforested well before the UNFCCC process began; at 13% the UK's tree cover is low internationally.
 - The COP26 pledge identifies the importance of protection and restoration of existing forests. In the UK established woodlands and trees that fall outside of the ancient semi-natural woodland classification have limited protection outside of the planning system. Current Government plans are to increase afforestation, consistent with increasing forest cover to 18% by 2050.
 - As an importer of commodities that bring a risk of deforestation such as cocoa, rubber, soya, and palm oil, UK consumption choices are an important factor in global deforestation. The recent Environment Act introduced legislation that makes use of key commodities illegal if not produced in line with local laws protecting forests and other natural ecosystems.

The Committee will provide further advice early next year on oil and gas production in the UK.

UK imports and consumption choices are part of global supply chains that play a part in deforestation globally.

– The UK should continue to use the UK Forest Law Enforcement Governance and Trade regulations to incentivise sustainable trade and forestry standards in timber producing countries. The UK may be able to do more through supply chains and consumer awareness, while reducing consumption of meat and dairy products would reduce global land use pressures. Imports of biomass feedstocks must meet high sustainability thresholds in line with best practice and be considered within the context of the deforestation pledge.

- **Transitioning to Zero-Emission-Vehicles:** The UK has committed to end the sale of new petrol and diesel cars from 2030, and hybrids from 2035. To enable the transition Government plans to introduce a Zero-emission vehicle mandate from 2024 and has consulted on phasing out new non-zero-emission heavy goods vehicles (HGVs) by 2040 (2035 for smaller HGVs). Delivering on these will provide a valuable example.
- **Green Finance.** UK commitments in the last year are a good step forward in its intention to become the 'world's first net-zero aligned financial sector'.³⁰ In the last year the UK announced plans to require listed UK companies and asset managers to publish 'transition plans' and to report in line with Task-Force for Climate-related Financial Disclosure (TCFD).³¹ The priority now will be ensuring high-quality transition plan standards and ensuring investors use the additional information to change funding flows.
- **Best practice in international carbon markets.** The Committee has been clear that international credits should not be used to meet the UK NDC, carbon budgets or Net Zero target. However, they could provide a means to go beyond domestic efforts, for example through voluntary purchases from UK corporates. The Government can help to encourage firms to buy only credits which can be shown to be genuinely additional, avoiding the use of Kyoto-era credits for example and focusing on credits that are additional to sellers' NDCs.

The UK's Net Zero Strategy therefore remains a suitable basis for the next phase of UK climate action: implementation. The most important contribution that the UK can now make to the global effort to deliver on the Paris Agreement and close the gap to 1.5°C is to press on quickly with delivery of the Net Zero Strategy.

In implementing the Net Zero Strategy the UK should aim to consider setting a positive example of a low-carbon transition that is attractive to others.

The UK has demonstrated over the last decade that it is possible to cut emissions and grow the economy. Now it must show that it can implement the policies and actions across all sectors needed to deliver deep emissions cuts to 2030 on the path to Net Zero by 2050, while maintaining public buy-in to the transition, building strong new low-carbon industries, jobs and businesses, and delivering multiple benefits to its citizens. The UK is one of the most advanced countries on its decarbonisation journey, and can offer a positive example to others.

UK adaptation action and the Glasgow Climate Pact

The UK has satisfied its obligations to submit an Adaptation Communication as expected under the Paris Agreement. However, there remain substantial areas where the UK's current National Adaptation Programme for England can and needs to be strengthened, as summarised in our recent 2021 Progress Report.

The UK can and should strengthen its policy on adaptation.

The recent Independent Assessment of UK Climate Risk published by the Committee in June 2021 outlines the most urgent risks and opportunities across the economy and society that should be addressed in the next National Adaptation Programme due in 2023. A strengthened third National Adaptation Programme, fully addressing these risks through a targeted cross-government set of policies and a clear monitoring and evaluation framework should then form the basis of the UK's next Adaptation Communication to the UNFCCC.

4. CCC work to support implementation of the Paris Agreement

The Committee's role is changing to focus more on implementation than new targets.

The Committee's role in the UK's overarching climate framework is set out in the Climate Change Act (2008). In coming years, our role will focus on guiding implementation and monitoring progress. We also intend to continue to engage internationally to learn from others' experiences and to share our own, which reflect the hugely helpful role of independent evidence-based advice in moving from pledges to action.

Recommending and monitoring emissions reductions in the UK

So far, the UK has set emissions targets based on advice from the Committee. In 2019 we recommended setting a Net Zero target for 2050 that covered all greenhouse gases and all sectors (including international aviation and shipping), to be met without recourse to use of international credits. Last year we proposed a path to the Net Zero target that was the basis for the UK's 2030 NDC to reduce emissions by 68% from 1990, and the Sixth Carbon Budget requiring a 78% reduction from 1990 to 2035.

The UK has adopted these targets and published its plans to meet them, through the Net Zero Strategy and a set of supporting sectoral strategies. These broadly align to the pathway proposed by the Committee.

For the next two to three years our priority will be to support domestic delivery of the UK's Net Zero target and carbon budgets, holding the Government to account in delivering on the Net Zero Strategy that it has set out.

We are resetting our approach to monitoring progress aiming for policy-relevant, timely, real-world indicators.

Our annual Progress Reports to Parliament will be central to this, providing an up-to-date independent assessment of delivery and targeted advice to Government on key areas of the transition, particularly where action is required to correct the UK's course to Net Zero.

- We are developing an enhanced indicator framework to monitor progress across each key sector of the economy, which will provide a deeper understanding of the underlying drivers of the transition
- As far as possible, we will seek to identify leading indicators that indicate where the UK is heading as much as where we have been, and that identify problems early enough to respond to them and course correct.
- We will seek to broaden our assessment of real-world progress, including public attitudes, corporate commitments, finance and the green recovery, as well as consumption emissions and the factors affecting them.
- We will explore the possibility of reporting on progress more regularly, in a shorter more accessible format, recognising the pace at which climate policy is developing and the need to adjust plans more regularly than once a year.

As signalled in our 2021 Progress Report, we are also undertaking further work on the key cross-cutting elements of climate action in the UK. We intend to publish analysis and advice in 2022 on:

We are also widening our assessment of progress beyond the emitting sectors to consider key cross-economy enablers.

- **Public Engagement.** We plan to publish advice in Spring 2022 on how the UK public can be engaged to better understand and fully participate in the transition to Net Zero.
- **Governance and enabling delivery.** We will increasingly look at the coordination and integration of Net Zero at UK, regional and local levels of government.
- **The role of business.** We will seek to broaden our advice to give more attention to how business can enable lifestyle changes and low-carbon choices, corporate strategies, local authority action and community action.
- **Workers and skills.** We will continue our work looking at the changes that a transition to Net Zero will mean for the UK workforce, including ensuring a just transition.
- **Fair funding.** The Committee will monitor the Government's progress in delivering a transition that shares costs and benefits of Net Zero fairly across different groups in society, and develop analysis on the merits and risks of different decarbonisation delivery mechanisms and funding options.

Finally, we will seek increasingly to locate the UK's transition within the wider international transition, which is set to gain pace. This includes implications for the UK's consumption emissions and has important implications for technologies, options and costs, and for policy design (e.g. because of carbon-border adjustment mechanisms).

Responding to climate risk in the UK

We are also strengthening our approach to monitoring progress in adapting to climate change.

In our recent Independent Assessment of UK Climate Risk the Committee has set out ten principles for effective adaptation action in the UK. Over the coming years the Committee will be focusing its work on several of these in particular:

- **Integrating adaptation into other policies.** We will continue to make the case regarding the necessity of factoring adaptation into the full range of Government policies through our statutory role.
- **Metrics.** We will continue to build our progress monitoring system to identify meaningful metrics to hold Government to account on preparing the UK for a changing climate.
- **Funding.** We will aim to identify actions that Government and others can take to reduce and remove funding barriers for adaptation, including in the private sector.

Adaptation actions will vary across countries and regions depending on the climate hazards that they are exposed to. However, features of good adaptation are common across geographies. Progress in these areas in the UK over coming years can therefore also help shape adaptation action more widely around the world.

Sharing our experience to raise ambition and support action around world

The Committee has collaborated with similar bodies around the world ahead of COP26 and will continue to do so.

Internationally, the Committee has strengthened linkage with comparable bodies worldwide through supporting the development of the International Climate Councils Network, launched at COP26 (Box 3). Independent, expert climate councils can play a valuable role in implementing the Paris Agreement through guiding timely and effective climate action in national contexts. Through the Network and our own engagement we hope to build understanding of and support the role of Climate Councils around the world.

Our international engagement will also increasingly focus on translating pledges to action.

We will also be building on our wider international engagement work to share lessons and methods from the UK's approach to addressing climate change, with a particular focus on supporting countries to implement their Net Zero targets. This will include:

- **Publishing new 'Insights Briefings' aimed at international policy-makers to share expertise from the CCC's experience** in advising Governments in the UK on reducing emissions and responding to climate risks. We have already published 8 briefings which introduce the role of the CCC under the Climate Change Act and key methodologies from our advice on Net Zero and monitoring progress. These are now available in English, Chinese and Spanish.
- **As part of the UK Government's UK PACT programme (Partnering for Accelerated Climate Transitions), the CCC will be expanding technical support to middle income countries** to help build capacity in areas such as climate governance and legislation, modelling pathways and developing policies for Net Zero and developing approaches to manage climate risk. This will build on our engagement in the run-up to COP26. For example we have been working closely with the newly established South African Presidential Commission on Climate Change, a body which helped inform South Africa's new ambitious NDC for 2030.
- **We will continue to work with a wider range of international partners and initiatives to help raise global ambition and support implementation of the Paris Agreement.** In 2021 we engaged with partners including from Australia, China, Canada, Germany, Greece, Japan, South Korea, and USA, as well as the ZEV Transition Council.

At COP26 we launched the International Climate Councils Network, alongside 20 other councils.

Box 3

The International Climate Councils Network

At COP26, the Committee in partnership with 20 other Climate Councils from across six continents formally launched the International Climate Councils Network (ICCN).

The ICCN's mission is to foster collaboration between existing Climate Councils and act as a focal point for other Governments interested in strengthening their national climate governance through the introduction of expert and independent advisors.

As part of its launch, the ICCN issued an open letter to heads of Government of the Parties to the UNFCCC signed by the chairs of 19 Councils. This noted that the 2020s must be the decade of implementation and highlighted the value of Climate Councils to support Government in this task.

The letter set out the following five principles for enabling Councils to undertake their role effectively:

- A robust grounding in the latest climate science, as exemplified by the assessments of the Intergovernmental Panel on Climate Change (IPCC), supported by strong expertise across relevant economic, physical, ecological and social sciences.
- A mandate to provide independent, evidence-led advice to and assessment of action by Government and stakeholders on climate mitigation and/or adaptation, with sufficient resources to deliver on that mandate.
- A remit to produce advice on the socioeconomic aspects of the climate transition to ensure that it is procedurally and substantively fair.
- A consultative and impartial approach to engaging stakeholders to help develop consensus and steer policy action, particularly in critical and/or challenging areas.
- A sharp focus on strengthening and aligning adaptation, mitigation and just transition efforts, and improving their integration – all three are essential to effective climate action.

The ICCN is an open and collaborative initiative that takes an inclusive approach to participation. It is jointly-owned and coordination is rotated among the participant councils.

Endnotes

- ¹ IPCC (2021) *Working Group I contribution to the Sixth Assessment Report*
https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf
- ² For example, the IEA's Net Zero scenario sees no new investment in oil and gas supply from today and fossil fuel use falling to just a fifth of energy supply in 2050. IEA (2021) *Net Zero by 2050 A Roadmap for the Global Energy Sector* <https://www.iea.org/reports/net-zero-by-2050>
- ³ Recent analysis by the OCED suggests that the \$100 billion goal is likely to be met in 2023. A Delivery Plan for meeting the goal through to 2025 was published just prior to COP26. COP26 Presidency (2021) *Climate Finance Delivery Plan – meeting US\$100 billion goal*
<https://ukcop26.org/wp-content/uploads/2021/10/Climate-Finance-Delivery-Plan-1.pdf>
- ⁴ UNFCCC (2021) *Article 6 of the Paris Agreement: Informal technical expert dialogues*
<https://unfccc.int/sites/default/files/resource/Art.%206%20presentation%20ITEDs%20CDM%20transition.pdf>
- ⁵ Net Zero Tracker (2021) <https://www.zerotracker.net/> and Climate Action Tracker (2021) <https://climateactiontracker.org/global/cat-net-zero-target-evaluations/>
- ⁶ The ETC estimated that emissions from deforestation, coastal and peatland degradation could be reduced by 4.6 GtCO₂/year by 2030 at an average cost of \$40 per tonne. ETC (2021) *Keeping 1.5 Alive*, <https://www.energy-transitions.org/wp-content/uploads/2021/09/ETC-Keeping-1.5C-Alive-Closing-the-Gap-in-the-2020s-Executive-Summary.pdf>
- ⁷ Emissions Database for Global Atmospheric Research (EDGAR) (2021) *GHG Emissions of all world countries*, https://edgar.jrc.ec.europa.eu/report_2021#emissions_table
- ⁸ Our World in Data (2020) *Climate change and flying: what share of global CO₂ emissions come from aviation?* <https://ourworldindata.org/co2-emissions-from-aviation>
- ⁹ Non-CO₂ effects from aviation are complex and large uncertainties persist, but best-estimates suggest that these currently represent the majority of global aviation's impact on the climate. Lee, D. et al. (2020) *The contribution of global aviation to anthropogenic climate forcing for 2000 to 2018. Atmospheric Environment*, 244, 117834.
- ¹⁰ The higher figure if pre- and post-production activities are included. IPCC (2019) *IPCC Special Report on Climate Change and Land*, <https://www.ipcc.ch/srccl/chapter/summary-for-policymakers/>
- ¹¹ The Food and Land use Coalition (2021) *From Global Commitments to National Action: A Closer Look at Nationally Determined Contributions from a Food and Land Perspective*, <https://www.foodandlandusecoalition.org/wp-content/uploads/2021/11/From-COP-to-national-action-Assessing-the-NDCs-from-a-food-land-perspective.pdf>
- ¹² United Nations Environment Programme (2019) *UN Global Resources Outlook 2019*, <https://www.resourcepanel.org/file/1161/download?token=gnbLydMn>
- ¹³ United Nations Environment Programme (2021) *Adaptation Gap Report 2021*
- ¹⁴ Climate Action Tracker (2021) *Glasgow's Credibility Gap*, <https://climateactiontracker.org/publications/glasgows-2030-credibility-gap-net-zeros-lip-service-to-climate-action>
- ¹⁵ United Nations Environment Programme (2021) *Addendum to the Emissions Gap Report 2021*, <https://wedocs.unep.org/bitstream/handle/20.500.11822/37350/AddEGR21.pdf>

- ¹⁶ IEA (2021) *Technical note on the emissions and temperature implications of COP26 pledges*, <https://iea.blob.core.windows.net/assets/aa17bd09-2ad0-4d0a-b5aa-ee418900c4af/Theimpactsofnewemissionspledgesonlongtermtemperatures.pdf>
- ¹⁷ Climate Action Tracker (2021) *Glasgow's Credibility Gap*, <https://climateactiontracker.org/publications/glasgows-2030-credibility-gap-net-zeros-lip-service-to-climate-action>
- ¹⁸ Sognaes et al. (2021) *A multi-model analysis of long-term emissions and warming implications of current mitigation efforts*, *Nature Climate Change*, <https://doi.org/10.1038/s41558-021-01206-3>
- ¹⁹ Ou et al (2021) *Science 2021* <https://doi.org/10.1126/science.abl8976>
- ²⁰ United Nations Environment Programme (2021) *Emissions Gap Report 2021: The Heat Is On* <https://www.unep.org/resources/emissions-gap-report-2021>
- ²¹ Climate Action Tracker (2021) *Glasgow's Credibility Gap*, <https://climateactiontracker.org/publications/glasgows-2030-credibility-gap-net-zeros-lip-service-to-climate-action>
- ²² Percentage reductions are calculated based on ETC (2021).
- ²³ Drouet et al (2021) *Net zero-emission pathways reduce the physical and economic risks of climate change*, *Nature Climate Change*, <https://doi.org/10.1038/s41558-021-01218-z>
- ²⁴ Riahi et al (2021) *Cost and attainability of meeting stringent climate targets without overshoot*, *Nature Climate Change* <https://doi.org/10.1038/s41558-021-01215-2>
- ²⁵ Climate Action Tracker (2021) *Glasgow's Credibility Gap*, <https://climateactiontracker.org/publications/glasgows-2030-credibility-gap-net-zeros-lip-service-to-climate-action>
- ²⁶ The Agreement on Climate Change, Trade and Sustainability (ACCTS) is an initiative launched in 2019 by Costa Rica, Fiji, Iceland New Zealand, Norway and Switzerland to explore the use of trade levers to support low-carbon development – including reducing fossil fuel subsidies, aligning product standards and removing tariffs on low-carbon goods and services. New Zealand Foreign Affairs and Trade (2020) *Agreement on Climate Change, Trade and Sustainability (ACCTS) negotiations* <https://www.mfat.govt.nz/en/trade/free-trade-agreements/trade-and-climate/agreement-on-climate-change-trade-and-sustainability-accts-negotiations/>
- ²⁷ HM Government (2017) *Fossil Fuels: Subsidies - Question for HM Treasury*, UIN 63284, tabled on 6 February 2017. <https://questions-statements.parliament.uk/written-questions/detail/2017-02-06/63284>
- ²⁸ WTO Agreement on *Subsidies and Countervailing Measures*, Article 1-9. https://www.wto.org/english/docs_e/legal_e/24-scm_01_e.htm
- ²⁹ IMF (2021) *Climate change – Fossil fuel subsidies* <https://www.imf.org/en/Topics/climate-change/energy-subsidies>
- ³⁰ HMT (2021) *Net-Zero Aligned Financial Centre* <https://www.gov.uk/government/publications/fact-sheet-net-zero-aligned-financial-centre>
- ³¹ BEIS (2021) *Press release: UK to enshrine mandatory climate disclosures for largest companies in law* <https://www.gov.uk/government/news/uk-to-enshrine-mandatory-climate-disclosures-for-largest-companies-in-law>

COP26: Key outcomes and next steps for the UK

December 2021

1 Victoria St, Westminster
London SW1H 0ET

www.theccc.org.uk
[@theCCCuk](https://twitter.com/theCCCuk)