January 2024



THE OXFORD INSTITUTE FOR ENERGY STUDIES



Introduction

Prior to COP28, which took place in Dubai between 30 November - 13 December 2023, we highlighted ten key issues which we believed would shape the outcome of the conference.¹ This short paper considers the topics which dominated the meeting, provides an overview of the most important outcomes, and discusses the debates that went on as the final conclusions were agreed and published.

As the opening date of the conference approached it seemed that the event might be overwhelmed by questions about the location of the event in a major Middle Eastern oil producing state and the presidency being held by the CEO of the UAE's state oil company ADNOC, Mr Sultan Al-Jaber. Numerous press reports called the credibility of the event organisation into question and suggested that the outcome could well be a stitch-up managed by fossil fuel producing countries and companies.² In reality, the conclusions of the latest round of COP negotiations were much more nuanced. Fossil fuel producers were more heavily involved than many environmental NGOs would have liked, but at the end of the conference they were part of a consensus that for the first time included a transition away from fossil fuels in the final communique. In addition, hydrocarbon producers announced pledges that will have a real impact on emissions, if they are fulfilled. Furthermore, the COP discussed other vital issues such as the global stocktake, climate finance, transition technologies, adaptation measures, methane emissions, and the loss and damage fund.

However, the key to understanding the outcomes of this huge conference, attended by almost 100,000 delegates, is in the language of the final communique, which seeks to place obligations, demands, and calls to action on the 197 parties participating in the official meeting. The subtle wording of the phrases as well as their content reveal much about the intentions of the COP but also about the obstacles faced in reaching a consensus among so many countries and regions with widely divergent interests, climate ambitions, and national circumstances. The result is inevitably a compromise which needs to be dissected in order to assess whether this meeting was really able to 'keep 1.5 alive' or whether the world is continuing along the path described by the UN secretary general in 2022 before COP27 as "a highway to hell with our foot still on the accelerator."³

This short review of the major outcomes of COP28 will use some of the key phrases from the final communique as a foundation for a broader discussion about the debates that occurred at the

¹ https://www.oxfordenergy.org/publications/10-key-issues-for-cop-28/

² For example: https://www.reuters.com/sustainability/climate-energy/cop28-advisory-board-member-resigns-over-reports-uaefossil-fuel-dealmaking-2023-12-01/

³ https://www.aljazeera.com/news/2022/11/7/world-on-highway-to-climate-hell-un-chief-guterres-tells-

cop27#:~:text=%E2%80%9CWe%20are%20on%20a%20highway,hitting%20that%20mark%20by%202030.



conference, the differing positions of the most important players, and the implications of the announcements and pledges that were made. Critically, it will also assess the likelihood of implementation in a number of vital areas and will identify the statements that could be open to multiple interpretations and therefore to slippage or complete lack of action.

1. The overview of the global stocktake was inevitably gloomy

The entire conference was essentially framed around the report of the first Global Stocktake (GST) and the conclusions reached from it about the progress made since the Paris Agreement was signed in 2015 at COP21 and the actions that are now required to meet climate goals. Indeed, the final COP communique was entitled 'Outcome of the first global stocktake' and included both a review of current emissions as well as strategies to address not only mitigation but adaptation to a changing climate, the means of implementation to achieve climate goals (especially finance for the developing world), and the need for international cooperation to keep up the momentum behind the increasingly ambitious goal-setting that will be needed.

The initial focus of the conference, though, was the progress which the world has made to date since Paris and, as we already knew from the synopsis report published before the COP, the results are not good. This was encapsulated in a few key phrases in the final GST conclusions:

"The Conference of the Parties...**underlines** that Parties are not yet collectively on track towards achieving the purpose of the Paris Agreement and its long-term goals...

...expresses serious concern that 2023 is set to be the warmest year on record and that impacts from climate change are rapidly accelerating, and emphasizes the need for urgent action and support to keep the 1.5 °C goal within reach and to address the climate crisis in this critical decade...

...**also recognizes** that limiting global warming to 1.5 °C with no or limited overshoot requires deep, rapid and sustained reductions in global greenhouse gas emissions of 43 per cent by 2030 and 60 per cent by 2035 relative to the 2019 level and reaching net zero carbon dioxide emissions by 2050...[although] current nationally determined contributions would reduce emissions on average by 2 per cent compared with the 2019 level by 2030."⁴

Essentially, there is a persistent emissions gap and the current trajectory implied by global environmental policies is that the world is set to warm by 2.4-2.6° C by the end of the century. As acknowledged elsewhere at the COP this is certainly an improvement on the 3.7-4.8° of warming that was anticipated in 2010,⁵ but it still remains well above the 1.5-2.0° target. In addition, it is clear, and was largely accepted at the COP in Dubai, that the world is very far from the trajectory needed by 2030 to be in line with a net zero goal by 2050. Implementation of the current nationally determined contributions (NDCs) will see a 2 per cent reduction in emissions compared to 2019 by 2030, compared with the 43 per cent fall needed to be on target for net zero. As UN Secretary General Antonio Guterres put it in his opening remarks "Earth's vital signs are failing...[and] we are miles from the goals of the Paris Agreement."⁶

His message to delegates concerning the solution was very clear and was captured in three major goals: drastically cut emissions; rapidly transition to renewables; and avoid trying to "save a burning planet with a firehose of fossil fuels," and ensure climate justice by helping poorer countries to survive "disasters that they did not cause."⁷ Specifically, Guterres stated that "the success of this COP depends"

⁴ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement, pp.2-4 sourced from https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf

⁵ <u>https://www.context.news/climate-risks/what-is-the-world-doing-about-climate-change</u>

⁶ <u>https://www.un.org/sg/en/content/sg/speeches/2023-12-01/secretary-generals-remarks-opening-of-world-climate-action-summit</u>

⁷ <u>https://www.un.org/sg/en/content/sg/speeches/2023-12-01/secretary-generals-remarks-opening-of-world-climate-action-summit</u>



on the Global Stocktake prescribing a credible cure in three areas", and indeed the final communique did seek to underline this as early as paragraph 28 (of 196 in total) when it outlined the overall mitigation ambitions that emerged from the COP, stating that it:

"Further recognizes the need for deep, rapid and sustained reductions in greenhouse gas emissions in line with 1.5 °C pathways and **calls on** Parties to contribute to the following global efforts, in a nationally determined manner, taking into account the Paris Agreement and their different national circumstances, pathways and approaches."⁸

However, it is at this point that the language and semantics of the COP process need to be interrogated. The statement cited above was the result of a heated debate which led to the conclusion of the COP being delayed by around 18 hours (the original timing had planned for the COP conclude on 12 December whereas in fact it ended on the morning of 13 December). In its original form the conclusion had used much less conclusive language, stating that the COP:

"also recognizes the need for deep, rapid and sustained reductions in GHG emissions and calls upon Parties to take actions that could include, inter alia..."9

In effect, the earlier draft offered the Parties a series of options which they could pick and choose to adopt, and this weak language enraged many delegates and led to numerous threats to walk away from the negotiations.¹⁰ The new text continues to acknowledge the need for a dramatic reduction in GHG emissions while strengthening the language around the actions needed. However, in a theme that will be echoed across this review, it does also provide get-out clauses.

Parties are asked to 'contribute' to global efforts, although the extent and timing of those contributions is not specified. The phrase 'in a nationally determined manner' leaves open the option for countries to choose their own path, while 'taking into account...their different national circumstances, pathways and approaches' is another invitation to adapt contributions to country objectives, which is consistent with the bottom-up approach of the Paris Agreement. This is particularly aimed at developing countries, to allow the principle of 'common but differentiated responsibility and respective capabilities' (CBDR-RC in COP jargon) to be applied by them. They insisted throughout the COP that developed countries should move faster to reduce emissions and should also fund progress in the developing world.

As a result, although the language has been strengthened it is not the dramatic call for action that many had hoped for. '*Further recognizes*' is an acknowledgement of the need for progress but lacks the heft of words such as 'reaffirms', 'emphasizes' or 'underscores' used elsewhere in the document, while '*calls upon*' could also have been stronger. While it certainly has more power than 'commends', many would have preferred to see a more positive 'commits to', 'urges' or 'decides to' in order to affirm the overall message. Although such commentary may seem inconsequential in itself, the overall impact of the subtle shifts in language is significant, as in this case it will likely allow many varied interpretations of not only the course of action each country takes but also the urgency with which it takes it depending on national circumstances. The overall effect is to provide an important caveat to all the initiatives which are discussed below.

⁸ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, p.5, para 28 sourced from

https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf

⁹ First global stocktake under the Paris Agreement, CMA agenda item 4, Version 11/12/2023 1630, p.5, para 39 as cited at https://www.reuters.com/business/environment/new-cop28-draft-text-does-not-mention-phase-out-fossil-fuels-2023-12-11/
¹⁰ https://www.reuters.com/news/arid-41288239.html#:~:text=Year%20New%20Career-

<u>Cop28%3A%20EU%20threatens%20to%20walk%20from%20climate%20summit%20over%20'get,card%20for%20fossil%20fu</u>el%20industry'&text=The%20UN's%20climate%20change%20summit,the%20future%20of%20fossil%20fuels.



2. A dramatic increase in renewable energy output and energy efficiency improvements

The first major objective set out in the GST concluding document calls on countries to contribute to:

"Tripling renewable energy capacity globally and doubling the global average annual rate of energy efficiency improvements by 2030".¹¹

The goal to triple renewable energy output and to double the energy efficiency improvement rate was probably the least controversial of the objectives outlined in the critical paragraph 28 of the COP28 final GST conclusions. It had effectively been telegraphed via a number of pre-COP meetings, the most important of which were the G20 discussions in India in September 2023 and the meeting between the US and China in California in November. Although both meetings encountered difficulties over issues related to fossil fuels, there was overall consensus that the growth of renewable energy was a necessary condition of the energy transition and the goal to meet net zero by 2050. G20 leaders set the initial target to triple global nuclear capacity by 2030¹² and this was then endorsed by John Kerry and Xie Zhenhua (the leaders of the US and China delegations respectively at COP28) at their Sunnylands summit, which also confirmed that the two countries would seek to "stabilise the politics between the two countries over environmental issues" ahead of the Dubai conference.¹³

As a result, when EU president Ursula von der Leyen came to launch the global pledge on renewables and energy efficiency it came as little surprise that it was supported by both the COP presidency and 118 other countries, a number which grew to 130 by the end of the conference.¹⁴ The major shock was that China was absent from the pledge, as was India, but a number of other groupings, including Latin America, the Caribbean and 25 global utilities, announced complimentary pledges to bolster the credibility of the EU initiative.

One other note of controversy was the lack of a specific figure in the final agreement, once again highlighting the difficulties of the COP process. It was widely acknowledged in side meetings that took place in the official COP Blue Zone that the new renewables target was to reach 11,000GW by 2030, tripling the 3629GW installed in 2022 and close to similar figures proposed by the IEA and IRENA.¹⁵ However, a few delegates were reluctant to commit to the goal and disputed the use of 2022 as a base year because of the amount of renewables growth that had already taken place in the 2020-2022 period in some countries. As a result, a specific figure was left out of the final communique (despite being in earlier drafts), slightly undermining the result.

On energy efficiency, a specific number was also omitted, but again the underlying goal was widely acknowledged as being to accelerate the decline in energy use per dollar of GDP from 2.1 per cent per annum to 4.1 per cent over the period to 2030. If achieved, this would imply that overall global primary energy demand would be 10 per cent lower in 2030 than in 2022, with electrification and the use of renewables being at the forefront of the overall process.

Despite the lack of specific numerical targets in the final communique, the combination of these two objectives was widely regarded as being the most impactful initiative that emanated from the COP, with some assessments calculating that increased renewable use and improved energy efficiency could account for over 70 per cent of the emissions cuts needed to put the world on the pathway to achieve the IEA's net zero roadmap by 2030.¹⁶ The question of the achievability of the target remained a question at the COP, with financing for projects in the developing world being a key focus as always.

¹⁶ Ibid.

¹¹ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, p.5, para 28, point a) sourced from https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf

¹² https://www.reuters.com/sustainability/g20-agrees-pursue-tripling-renewables-capacity-stop-short-major-goals-2023-09-09/

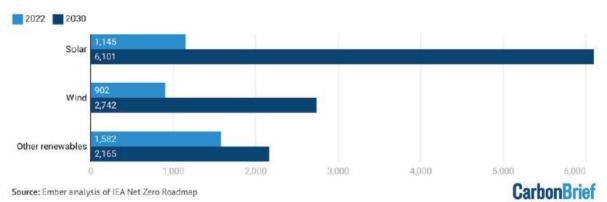
¹³ https://www.climatechangenews.com/2023/11/15/us-and-china-promise-cooperation-on-renewables-and-methane/

¹⁴ https://energy.ec.europa.eu/publications/global-renewables-and-energy-efficiency-pledge_en

¹⁵ https://www.carbonbrief.org/ga-why-deals-at-cop28-to-triple-renewables-and-double-efficiency-are-crucial-for-1-5c/



Nevertheless the initiative was regarded as a bold and vital objective if the world is to remain on course for its climate goals.





Contributions to the tripling of renewable capacity by 2030 in the IEA's 1.5C pathway, gigawatts by technology. Source: Ember analysis of IEA Net Zero Roadmap. Chart by Carbon Brief.

Source: Ember analysis of IES Net Zero Roadmap

3. A historic transition away from fossil fuels, but plenty of room for manoeuvre

Positive though the decisions on renewables and energy efficiency were, a number of delegates and observers pointed out that they would only work to solve the climate crisis if they worked in tandem with a reduction in the use of fossil fuels. This was probably the most contentious issue at COP28, with little common ground being found between the aggressive anti-fossil fuel lobby, who asserted that the fossil fuel companies and lobbyists should not even be at the conference, to the self-proclaimed realists who insisted that fossil fuels are and will remain a part of the energy system for some time and that we therefore need to deal with the transition with that in mind.¹⁷ Importantly, many oil producing countries from the developing world also pointed out that in a just energy transition, developed countries cannot just expect them to commit "economic suicide"¹⁸ by accepting a rapid phase-out of their most important economic resource.

Given these hugely contrasting views, it was perhaps surprising that consensus was reached on the inclusion of four important statements on fossil fuels in the final GST document. These were:

Accelerating efforts towards the phase-down of unabated coal power.¹⁹

Transitioning away from fossil fuels in energy systems, **in a just, orderly and equitable manner**, accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with the science.²⁰

https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf

¹⁷ https://www.lemonde.fr/en/environment/article/2023/12/07/cop28-opposite-positions-on-fossil-fuels-divide-the-un-climateconference_6321684_114.html

¹⁸ https://www.bloomberg.com/news/features/2023-12-15/cop28-how-negotiators-reached-deal-to-transition-away-from-fossil-fuels

¹⁹ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, p.5, para 28, point b) sourced from

²⁰ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, p.5, para 28, point d) sourced from https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf



Recognizing that transitional fuels can play a role in facilitating the energy transition while ensuring energy security.²¹

Phasing out inefficient fossil fuel subsidies that do not address energy poverty or just transitions, as soon as possible.²²

There are several themes to be drawn out from these statements. On coal, the language essentially mirrors the statement from COP27, meaning that little further progress was made. This reflects the fact that a number of coal-producing and consuming countries had objected to the COP27 statement and were not prepared to see their use of a vital energy source further undermined. In particular, Indian prime minister Narendra Modi argued that his country cannot give up a fuel that accounts for 80 per cent of power output but is nevertheless accelerating the use of renewables and is developing India's own transition strategy that can allow for economic development as well as reduced emissions.²³ He called instead for a focus on all fossil fuels, rather than just targeting one. Importantly, the text also refers to <u>unabated</u> coal power, trailing a later discussion about carbon capture and storage but begging questions around the exact definition of abatement. Does the removal of 20 per cent of emissions from a coal-fired plant imply that abatement has been achieved, for example?

Modi's request was to an extent answered in the 'historic' call for the world to transition away from fossil fuels as a whole, meaning that oil and gas have implicitly been included in the language of a final outcome from a COP for the first time. However, once again the language is important. The phrase "in a just, orderly and equitable manner" is a direct reference to the right of developing countries to move more slowly on this issue than developed countries and to do so in a way which does not undermine their economic development. The statement goes on to acknowledge the importance of action this decade (although there is no specific target for 2030) and also mentions acting in line with climate science. This is relevant for two reasons. Firstly, the COP president Sultan Al Jaber had earlier been accused of arguing that there was no scientific evidence that supported a phase out of fossil fuels.²⁴ Although his words had been taken slightly out of context, he no doubt wished to reiterate the importance of science in the final document. Secondly, the mention of science also allows those who argue for other scientific solutions to emission reductions to promote the arguments for, for example, carbon capture and storage. This was another hotly debated topic and is discussed further below.

Finally, the specific absence of the phrase 'phase out' or even 'phase down' of fossil fuels is notable. It was rumoured at the COP that as many as 170 countries had been rallied by the High-Ambition Coalition to refuse any outcome that did not include strong language on the ending of fossil fuel use, with the phrase "phase out" being demanded by many.²⁵ However, on the opposite side of the argument OPEC urged its members to refuse to endorse any agreement which called for the phase-out of oil and gas, arguing that the Paris Agreement calls for a focus on emissions reduction rather than targeting specific energy sources.²⁶ The fact that the phrase was omitted from the final wording underlines the influence of individual groups or countries in a conference where consensus is needed to adopt any text.

However, the outcome remained positive, as the inclusion of fossil fuels in the text does mark a key turning point. As UN climate chief Simon Stiell summarised 'while we didn't fully turn the page on fossil

²¹ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, p.5, para 29, sourced from https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf

²² First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, p.5, para 28, point h) sourced from

https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf

²³ https://www.reuters.com/business/environment/india-cop28-insists-equity-climate-talks-2023-12-09/

²⁴ https://www.theguardian.com/environment/live/2023/dec/04/cop28-backlash-after-president-claims-no-science-behind-fossilfuel-phase-out

²⁵ Summary of the 2023 Dubai Climate Change Conference, IISD Earth Negotiations Bulletin, Vol 12 No.482, p.28

²⁶ https://www.aljazeera.com/news/2023/12/8/opec-rallies-members-against-fossil-fuels-phase-out-at-cop-28



fuels here in Dubai, this is clearly the beginning of the end',²⁷ while Norwegian Minister of Foreign Affairs Espen Barthe Eide added 'it is the first time that the world unites around such a clear text on the need to transition away from fossil fuels'.²⁸ Meanwhile, others marvelled that "we're standing here in an oil country, surrounded by oil countries and we have made a decision saying let's move away from oil and gas."²⁹ Indeed, some delegates argued that oil producing nations could only have been brought together to sign such an agreement in a fellow producing state, although it was interesting to note how sanguine the energy minister from Saudi Arabia appeared about the result.

Earlier in the conference Prince Abdulaziz bin Salman had asserted that his country would not agree to any text calling for a phase down of fossil fuels,³⁰ but his reaction to the final text was to say "the text provides alternatives [and] does not affect our ability to sell" and also "they are mostly reaffirming our understanding of the climate change agreement, leaving countries without restrictions passed down from entities that are not party to your decision making on what is important." He also commented on the UAE's hosting of the summit "I say there was a perfect cooperation between us, they did not leave us, we were always constantly coordinating and consulting, and we were given priority that I don't think I have ever seen in such a conference."³¹ It would therefore seem that oil producing countries see plenty of flexibility in the transition away from oil and gas.

The fossil fuel debate went beyond countries, though, as one of the major initiatives introduced by the COP presidency at the start of the conference was the Oil and Gas Decarbonisation Charter, an initiative signed by 50 oil and gas companies (including 30 National Oil Companies) to achieve net zero emissions from their Scope 1 and 2 value chains by 2050 and more urgently to reduce methane emissions to near zero by 2030 and to halt routine flaring of natural gas. Although there were some notable absences from the agreement (for example Chevron and ConocoPhillips), and the agreement was criticised for not addressing Scope 3 emissions (which account for around 85 per cent of emissions from the oil and gas value chain), it nevertheless marked another turning point as oil and gas companies were actively brought into the climate debate and made significant pledges against which they can now be judged.

This is particularly important in the case of gas, as it was one clear focus of the statement on 'transitional fuels' in the final GST document. If natural gas is to have any role in the energy transition then its value chain must be as emission-free as possible, and a joint initiative led by the IEA, the Environmental Defence Fund, the International Methane Emission Observatory, RMI, and the UN Environment Programme was launched at the COP to monitor methane leaks and flaring from 2024 and to hold companies accountable for their promises.³²

One final thought on fossil fuels concerns the objective to phase out inefficient fossil fuel subsidies, which again is a repeat of an ambition from COPs 26 and 27. The issue is controversial because many developing countries argue that subsidies are required to help the poor in society (hence the mention of energy poverty). However, beyond this important point, the objective also speaks to the need to address the demand side of the fossil fuel value chain as well as the supply side. This reinforces the key goal of transitioning away from fossil fuels in energy systems as a whole, and echoes a point made by a number of fossil fuel producers that consuming countries need to develop clear plans about how consumption is going to decline so that investment strategies can be optimised to avoid over- or undersupply as much as possible.

²⁷ https://news.un.org/en/story/2023/12/1144742

²⁸ https://www.reuters.com/business/environment/countries-push-cop28-deal-fossil-fuels-talks-spill-into-overtime-2023-12-12/ ²⁹ lbid.

³⁰ Bloomberg, 4 Dec 2023, "Saudi energy minister won't agree to fossil fuel phase down""

³¹ Reuters, 13 Dec 2023, "Saudi energy minister: in agreement with COP28 presidency on final deal"

³² Bloomberg, 2 Dec 2023, "Exxon among 50 oil producers in controversial climate pact at COP28"



If there is one important message from the fossil fuel debate it is perhaps that consumers and producers need to have a more active dialogue about how the transition away from oil, gas, and coal can be managed most efficiently and in a just and equitable manner.

4. An important focus on methane emissions and flaring

The final GST decision included a specific mention of methane emissions for the first time, highlighting the importance of this short-lived but high impact greenhouse gas. The objective was established to focus on:

Accelerating and substantially reducing non-carbon-dioxide emissions globally, including in particular methane emissions by 2030³³

The need to reduce methane emissions and flaring was one of the key themes of the first week of COP28, and while the Oil and Gas Decarbonisation Charter (OGDC) was one of the main fora for its discussion there were a number of other initiatives that also progressed. The US authorities, led by the Environmental Protection Agency, made a major announcement early in the COP (on December 2) introducing rules to ban routine flaring of natural gas produced by new oil wells, requiring companies to monitor leaks from well sites, and establishing a system of third-party monitoring of large methane releases or 'super-emitters.'³⁴ Meanwhile the World Bank launched the Global Flaring and Methane Reduction (GFMR) Partnership, which has an initial fund of \$250 million to provide grants and technical assistance to developing countries looking to cut carbon dioxide and methane emissions generated by the oil and gas industry.³⁵

In parallel with these announcements, 50 oil companies signed up to reduce methane emissions to near zero by 2030 as part of the OGDC and some also offered funding for methane emission reduction in the developing world. A total of \$1.2 billion was raised at the COP as part of the methane initiatives and importantly five more countries added their names to the Global Methane Pledge, including major emitters Kazakhstan and Turkmenistan. This means 155 countries have now committed to reduce methane emissions by 30 per cent by 2030.³⁶ Finally, China announced a new methane plan in mid-November which it then re-affirmed at the COP, pledging to "control methane emissions in a scientific, rational and orderly manner" via a series of twenty tasks that it set for its main fossil fuel producers and consumers.³⁷ Although it declined to join the Global Methane Pledge, this was another major step forward in the fight to reduce methane emissions.

Critics highlighted that reducing methane emissions should be best practice in any case and so was not a major pledge from the oil and gas industry, while others such as Barbados prime minister Mia Mottley argued that "a voluntary pledge is all well and good but it doesn't have any sort of [force] behind it without having some form of regulation."³⁸ This appears to be a fair challenge as many of the pledges made were voluntary, and the issue of how to measure, verify, and report emissions remains a very live debate.³⁹

The Global Methane Pledge Ministerial, held on the COP28 Energy Day (December 4), attempted to address this issue by announcing the significant progress made by the Methane Alert and Response System (MARS) which aims to spot major methane leaks, report them to governments and then provide

³³ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, p.5, para 28, point f) sourced from <u>https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf</u>

³⁴ https://www.reuters.com/sustainability/climate-energy/us-lays-out-plan-cop-28-slash-climate-super-pollutant-oil-gas-2023-12-02/

³⁵ https://www.worldbank.org/en/programs/gasflaringreduction/brief/ggfr-to-evolve-to-the-global-flaring-methane-reduction-partnership#:~:text=At%20COP28%20the%20World%20Bank,the%20oil%20and%20gas%20industry.

³⁶ https://www.wri.org/news/statement-cop28-countries-announce-new-efforts-reduce-methane-pollution

³⁷ https://www.carbonbrief.org/qa-what-does-chinas-new-methane-plan-mean-for-its-climate-goals/

³⁸ https://www.carbonbrief.org/cop28-key-outcomes-agreed-at-the-un-climate-talks-in-dubai/

³⁹ <u>https://www.oxfordenergy.org/publications/measurement-reporting-and-verification-of-methane-emissions-from-natural-gas-and-lng-trade-creating-transparent-and-credible-frameworks/</u>



funding to enable radical action to be taken. As John Kerry, who attended the meeting, was keen to point out, "major emitters can run but they can no longer hide"⁴⁰, although whether this will genuinely be enough of a threat for all to take action remains to be seen. However, the meeting also focused on other positive initiatives, from the announcement of methane regulations from a number of countries to a call for all GHG emissions to be included in future NDC commitments.⁴¹

Overall, the Global Methane Pledge and its related Oil and Gas Methane Partnership created significant momentum behind the cause of reducing methane emissions at the COP, and it would now genuinely seem to be the case that the issue is firmly established on country and company agendas. In both cases, key players will need to be held to account over the next few years to ensure that pledges are honoured, and there are several initiatives in place to focus on this, but this is one area where the oil and gas industry must have a clear and transparent ambition to deliver if its credibility is to be maintained in future COPs.

5. Emphasis on technology neutrality and a focus on carbon capture

Another theme related to the future of fossil fuels was the potential use of technologies that would mitigate their use by offsetting or reducing emissions. This topic was highly controversial, being described by some observers as a smokescreen for the fossil fuel industry and a 'fairytale solution.'⁴² Nevertheless, carbon capture and storage received a specific mention in the final GST summary and there was also an explicit mention for blue (methane-based) hydrogen. The exact wording from paragraph 28 of the GST was that parties should focus on:

Accelerating efforts globally towards net zero emission energy systems, utilizing zero- and low-carbon fuels well before or by around mid-century...⁴³

...and accelerating zero- and low-emission technologies, including, inter alia, renewables, nuclear, abatement and removal technologies such as carbon capture and utilization and storage, particularly in hard-to-abate sectors, and low-carbon hydrogen production⁴⁴

Saudi Arabia and other hydrocarbon-producing countries have been promoting the concept of the circular carbon economy for some time, with its stated goal of recycling carbon around the energy economy or storing it once it has been removed from the system.⁴⁵ The US is now also encouraging the development of CCUS technology via the incentives offered in its Inflation Reduction Act (IRA), and a number of its major hydrocarbon companies are now developing domestic projects.⁴⁶ The Global CCS Institute has identified 41 carbon capture and storage (CCS) facilities that are already in operation across the world, with another 26 in construction and a further 325 in development, underlining the growth that is occurring across the industry.⁴⁷ The fact that the technology has now been specifically mentioned in a COP final text underlines the increasing focus and will also no doubt inspire further investment.

https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf ⁴⁵ https://europe.aramco.com/en/sustainability/climate-change/managing-our-footprint/circular-carbon-

⁴⁰ https://www.catf.us/2023/12/turning-pledges-action-cop28-global-methane-pledge-ministerial/

⁴¹ https://energy.ec.europa.eu/news/2023-global-methane-pledge-ministerial-decisive-action-curb-emissions-2023-12-04_en#:~:text=General%20for%20Energy-

^{.2023%20}Global%20Methane%20Pledge%20Ministerial%3A%20decisive%20action%20to%20curb%20emissions.least%2030 %20percent%20by%202030.

 ⁴² <u>https://www.independent.co.uk/climate-change/news/cop28-dubai-fossil-fuel-ccs-solutions-b2461518.html</u>
 ⁴³ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, p.5, para 28, point c) sourced from https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf

⁴⁴ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, p.5, para 28, point e) sourced from

economy#:~:text=A%20circular%20carbon%20economy%20is,to%20reduce%20their%20carbon%20footprints.

⁴⁶ <u>https://www.catf.us/2020/07/ccus-interactive-map/</u>

⁴⁷ https://www.globalccsinstitute.com/wp-content/uploads/2023/11/GSR23-Executive-Summary_PDF.pdf



However, the Global CCS Institute's report also calls for a sense of realism about the extent to which carbon capture, utilisation and storage (CCUS) can play a role, especially in the short term. The IEA has estimated that in order to be on target for a net zero emissions world in 2050 there would need to be 1.6Gt per annum of CCS capacity globally by 2030 and between 6-8Gt by 2050. Current capacity is 40mt, and the projects identified by the Global CCS Institute as under construction and under development would take this to just over 360mt by 2030 if they are all completed. As a result, it is certainly logical to question the extent of the role that CCS can play in offsetting the impact of fossil fuels over the next three decades, as viable business models have not been developed and the current plans are far below what is required to meet a 1.5° scenario. While it is certainly not inconceivable that incentives like the US's IRA could accelerate development, the falling cost of renewables and the lack of a global carbon price at a level to justify the additional cost of carbon capture suggest that CCS may not play as major a role as some at the COP28 would have liked. Furthermore, its role is likely to be most critical in to hard-to-abate sectors such as chemicals, steel, and cement and it will be important to avoid the argument that its deployment supports the continued use of fossil fuels as this line of debate⁴⁸ seems problematic and open to aggressive challenge by an environmental community looking for examples of fossil fuel greenwashing.

6. Debate around Article 6 on carbon markets proved to be a major disappointment

There was significant hope that at COP 28, Article 6 of the Paris Agreement, which is considered the foundation for creating a global carbon market, would be put into full operation with agreement on technical issues around measurement, reporting, and transparency to avoid double-counting. The three most important paragraphs within Article 6 deal with the carbon offset-related relationships between countries (Article 6.2), companies (Article 6.4), and non-market actors (Article 6.8), but a number of issues with all three had been left over from COP27 and had been much discussed during 2023. However, the meeting in Dubai proved to be another disappointment after a year in which the credibility of voluntary carbon markets had already suffered from a series of scandals around the allocation of funds and the veracity of projects.⁴⁹ The final GST statement had only two mentions of Article 6, and neither were particularly impactful. The document:

Emphasizes the urgent need for accelerated implementation of domestic mitigation measures in accordance with Article 4, paragraph 2, of the Paris Agreement, as well as the use of voluntary cooperation, referred to in Article 6, paragraph 1, of the Paris Agreement...⁵⁰

...[and] also emphasizes the urgent need to strengthen integrated, holistic and balanced nonmarket approaches in accordance with Article 6, paragraph 8, of the Paris Agreement, in the context of sustainable development and poverty eradication...⁵¹

As can be seen, Articles 6.2 and 6.4 are not mentioned at all. Although Article 6.2 is already operational as key guidelines were agreed at COP26 in Glasgow, further guidance on reporting and the rules for

https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf

⁴⁸ One other point of contention around carbon capture at COP28 was the emergence of an argument around "net zero oil." Essentially, some in the oil and gas industry, and even some academics, were arguing that CO₂ reinjected into oil and gas reservoirs could essentially offset the emissions impact of the hydrocarbons being produced, making them "geologically net zero." While theoretically true, the argument relies on a huge amount of capture and storage capacity being built as well as a level of measurement and transparency across the whole supply chain which does not yet exist. It also potentially undermines the incentive to decrease fossil fuel consumption and does, if not debated carefully, provide cover for continued oil and gas production.

⁴⁹ <u>https://www.theguardian.com/environment/2023/aug/24/carbon-credit-speculators-could-lose-billions-as-offsets-deemed-worthless-aoe</u>

⁵⁰ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, p.6, para 31, sourced from

⁵¹ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Partis Agreement 13 December 2023, p.6, para 32, sourced from https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf



reporting trades had been expected but were not forthcoming at COP28. Countries will still be able to carry out cross-border exchanges of carbon credits, but the lack of a carbon market infrastructure in many countries remains an issue that was not resolved at the conference.⁵² Meanwhile approval for Article 6.4 on voluntary carbon markets for companies has been delayed until COP29 in Baku after delegates disagreed on the rules around carbon removals and the strength of the guidance on environmental integrity.⁵³ While this was viewed by some participants as a significant setback for a market that had already suffered a turbulent year, others were more sanguine and suggested that issues would be ironed out over the next 12 months. However, it does seem that the recent fall in liquidity and prices in the voluntary carbon market is unlikely to be reversed soon.

More positive news emerged around Article 6.8 which allows companies to cooperate using carbon offsets for the achievement of goals in their respective NDCs without relying on carbon markets. Although the text above is not specific on dates, delegates believed that the mechanism would be fully operational by June 2024.

One final point of note was that beyond the Article 6 debates the US announced a new initiative called the Energy Transition Accelerator (ETA) which is aimed at catalysing private capital for developing economies by selling credits to companies who want to offset their residual emissions. The credits would be generated via the decarbonisation of the power sectors in developing countries, and the framework includes monitoring requirements to ensure that the offsets have verifiable credibility. Fossil fuel companies have been excluded from participating, but Amazon, Walmart, and McDonald's have already signed up alongside countries such as Chile, Nigeria, and the Philippines. As a result, it may be that specific initiatives such as this can keep the momentum around offsets going while the Article 6 discussions are resolved.⁵⁴

7. A good COP for nuclear

If COP28 was historic for its inclusion of a transition away from fossil fuels for the first time, then it was also historic for the nuclear industry as it was included as a potential part of the solution to a net zero energy system for the first time. Paragraph 28 (e) mentions:

Accelerating zero- and low-emission technologies, including...nuclear⁵⁵

The inclusion came after several countries and regions have added nuclear to their transition taxonomies and is effectively an admission that no technologies can be ignored if the world is to meet its climate targets. IAEA director general Rafael Mariano Grossi suggested that "it demonstrates there is now a global consensus on the need to scale up this clean and reliable technology to achieve our vital goals on climate change and sustainable development,"⁵⁶ and he then announced with the French and Belgian prime ministers that there will be a global nuclear summit in Brussels in March 2024 to continue the momentum.

Meanwhile further encouragement was provided by 22 countries, including the US, Canada, and many EU countries, who backed a ministerial declaration calling for the tripling of global nuclear capacity by 2050. This then led to the unveiling of the Net Zero Nuclear Industry Pledge, with 120 companies involved in the nuclear fuel cycle signing up to operate in more than 140 countries in order to facilitate the tripling objective.⁵⁷ World Nuclear Association Director Sama Bilbao y Leon was suitably jubilant, declaring that "it is now time to move on from pledges and goals to delivering the rapid acceleration in

https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf

⁵² https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/oil/121323-cop28-lack-of-progress-on-article-6likely-to-further-limit-carbon-market-growth

⁵³ https://www.smithschool.ox.ac.uk/news/article-6-focus-outcomes-

cop28#:~:text=Article%206%20of%20the%20Paris.a%20wider%20range%20of%20stakeholders.

⁵⁴ Energy Intelligence, 6 Dec 2023, "COP28: Carbon markets advancing behind the scenes""

⁵⁵ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, p.5, para 28, point e) sourced from

 ⁵⁶ <u>https://www.iaea.org/newscenter/news/nuclear-energy-makes-history-as-final-cop28-agreement-calls-for-faster-deployment</u>
 ⁵⁷ <u>https://www.world-nuclear-news.org/Articles/COP28-agreement-recognises-nuclear-s-role</u>



global nuclear capacity needed to achieve net zero."⁵⁸ It remains to be seen whether the promise can indeed be realised, as even at the COP opposition emerged from some quarters and key questions remained about cost, safety, financing, and the timing of new developments.⁵⁹ However, discussions around small modular reactors pointed to new innovations that could help to accelerate a nuclear roll-out, and COP28 at least provided a morale boost to an industry that has stagnated for some decades.

8. A big step forward on Adaptation

The Global Goal on Adaptation was established as part of the Paris Agreement in 2015 in an attempt to redress the balance between the mitigation efforts that dominate COP discussions and the adaptation that is already required in many developing and developed countries to the changes that are now occurring due to global warming. Developing countries have always been keen to point out that this is a core part of the 'common but differentiated responsibility' principle and that the developed world needs to be ready to discuss and finance adaptation projects. However, the heterogeneous nature of adaptation across the globe has meant that it has been difficult to focus attention on this issue, and it was only at COP26 that a specific 2-year work programme was set up to create a framework for the debate. COP28 was the venue at which this framework was set to be finalised, and the positive news is that some specific targets were set. The final GST document makes numerous calls to action, with a number having specific dates attached:

Calls on Parties that have not yet done so to have in place their national adaptation plans, policies and planning processes by 2025 and to have progressed in implementing them by 2030

Affirms that the framework for the global goal on adaptation includes the following targets:

a) by 2030 all Parties have conducted up-to-date assessments of climate hazards, climate change impacts and exposure to risks and vulnerabilities... and by 2027 all Parties have established multi-hazard early warning systems...

(b) ... by 2030 all Parties have in place country-driven, gender-responsive, participatory and fully transparent national adaptation plans, policy instruments, and planning processes and/or strategies...

(c)... by 2030 all Parties have progressed in implementing their national adaptation plans, policies and strategies...

(d) by 2030 all Parties have designed, established and operationalized a system for monitoring, evaluation and learning for their national adaptation efforts...⁶⁰

This is certainly a step forward for the discussions on adaptation, as previously it had lacked any specific focus. The emphasis on early warning systems has been pushed by the UN for some time and is now an official goal, while the need for all parties to have certified adaptation plans by 2030 and to be monitoring activity against them provides further momentum, even if specific adaptation targets are missing (reflecting the fact that they will be different for every country).

However, one key issue remained unresolved, and this relates to the means of implementation. As will be discussed below, finance for adaptation has lagged far behind that for mitigation, and despite a pledge at COP26 to double the amount being made available (to around \$40 billion), the gap remains enormous. Many developing countries wanted the inclusion of a pledge to provide at least \$400 billion annually for adaptation by 2030, and this was in a strongly worded early draft which announced the

⁵⁸ <u>https://www.neimagazine.com/news/newscop28-ends-with-agreement-to-accelerate-green-technologies-including-nuclear-11372830</u>

⁵⁹ <u>https://www.reuters.com/sustainability/climate-energy/nuclear-sector-must-overcome-decades-stagnation-meet-cop28-tripling-goal-2023-12-07/</u>

⁶⁰ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, pp.8-9, paragraphs 59 and 64 a), b), c) and d) sourced from https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf



figure as a decision rather than a request. However, it was removed in later drafts and many developing countries were disappointed with the ultimate outcome. Nevertheless, a decision has been taken to convene ministerial dialogues on the need to urgently scale-up adaptation finance and so there is some hope that the action called for at COP28 will be supported with extra funds.

9. Climate Finance – big pledges but the gaps are still enormous

Provision of finance permeated every discussion at COP as developing countries underlined that every step they must take needs monetary support from the developed world. The issue generated some significant highlights (see Loss & Damage below) but also continued to be a source of frustration and lack of trust between the Global South and the Global North. In addition, although some very significant pledges were made at the conference, the final GST statement fully exposed the yawning gaps that remain if the ambitions laid out in the mitigation and adaptation programmes are to be met. Two general points from the document are worth highlighting before getting into the detail, with the GST conclusions noting:

... deep regret that the goal of developed country Parties to mobilize jointly USD 100 billion per year by 2020 in the context of meaningful mitigation actions and transparency on implementation was not met in 2021...⁶¹

while also underlining that

... the growing gap between the needs of developing country Parties...and the support provided and mobilized for their efforts to implement their nationally determined contributions, highlighting that such needs are currently estimated at USD 5.8–5.9 trillion for the pre-2030 period...⁶²

The \$100 billion pledge by 2020 has become a touchstone for the failure of developed countries to deliver on their financial promises and the debate around it continues to colour all discussions of future funding. At COP28 there was much discussion about an OECD report which asserted that the pledge had most likely been met in 2022,⁶³ but many developing countries dispute whether there was really any hard evidence for this.⁶⁴ The failure was noted "with deep regret" in the final text of the conference, but perhaps more importantly the funding required by developing countries for the rest of this decade was also documented. With just under \$6 trillion needed over seven years the annual requirement is almost ten times the current commitment from the developed countries, highlighting the huge challenges ahead. The New Collective Quantified Goal (NCGQ), which will effectively set the figure for developed world financing of the energy transition in the developing world from 2025-2030, is being debated over the next twelve months and it is hard to see how a figure of anything less than \$500 billion per annum would be acceptable. This looming challenge provided a sombre backdrop for all the green finance discussions at COP28.

In terms of the detail, the financial discussions can be broken down into four relatively distinct areas – loss & damage, mitigation, adaptation, and other funding issues. These are discussed separately below.

https://unfccc.int/sites/default/files/resource/cma2023 L17 adv.pdf

⁶¹ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, p.11, paragraph 80 sourced from

⁶² First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, p.10, paragraph 67 sourced from

https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf ⁶³ https://www.reuters.com/sustainability/sustainable-finance-reporting/rich-countries-may-have-met-100-bln-climate-goal-lastvear-oecd-2023-11-16/

⁶⁴ https://www.carbonbrief.org/cop28-key-outcomes-agreed-at-the-un-climate-talks-in-dubai/



a) Loss & Damage

COP President Sultan Al Jaber created something of a sensation on Day 1 of the conference when he presented the draft of a final document on the operationalisation of the Loss & Damage Fund, which was quickly approved by the delegates to much applause.⁶⁵ The Fund had been a major bone of contention at COP27 and the subject of much debate over the course of 2023, and the fact that all disputes had been resolved so early in the COP provided a hugely positive start to the event. The final GST statement highlighted the achievement and welcomed:

...the operationalization of the funding arrangements, including the Fund, referred to in decisions - /CP.2811 and -/CMA.5,12 and the pledges of USD 792 million to the Fund and commends the efforts of the President of the Conference of the Parties at its twenty-eighth session in this regard...

However, even this positive statement demonstrates a few issues. Firstly, the entity is referred to as 'the Fund' without any specific name. This reflects the continuing debate over whether the fund is compensation for previous damage or, as the US insisted, a "climate impact response" fund.⁶⁶ The semantics revolve around the issue of liability and reparations, with the developed countries very reluctant to commit to anything which could leave them open to legal challenge over the impact of past emissions. Loss & Damage was therefore rejected as an official title, and a name for the fund has yet to be decided.

Beyond the name, though, the question of funding is also important. On Day 1 the UAE led a series of key pledges, donating \$100 million to the Fund and being followed by Germany and a number of other European countries with significant donations. By the end of the conference a total of \$792 million had been donated, as stated in the paragraph above. Although this was an impressive start, it highlights a number of issues. Firstly, the figure itself pales into insignificance when compared to some of the climate disasters it is likely to be used for. As an example, the floods in Pakistan in 2022 are estimated to have caused up to \$40 billion of damage alone, putting the contents of the Fund into some context.⁶⁷

Secondly, it remains unclear how funds should be allocated and who can apply to use them. Initially it was envisaged that developing countries should be the recipients, but COP28 underlined once again that there is a vast difference across this very general grouping. As the UAE itself demonstrated, some notionally developing countries are perfectly capable and willing to pay into funds such as this, and many developed countries have been demanding a re-definition of the developing world nomenclature in order to target finance at most vulnerable countries while demanding payments from the larger and wealthier developing nations.

Thirdly, all contributions to the Fund remain voluntary, as demonstrated by the fact that the US only offered \$17.5 million as its initial input (much to the dismay and outrage of many climate activists).⁶⁸ It remains to be seen whether, outside the focus of a COP meeting, countries continue to make donations to the Fund or whether it becomes a backwater until the issue is raised again at the next COP.

Finally, the location of the Fund at the World Bank also caused some controversy as many developing countries wanted it to be linked to the UN rather than an institution dominated by developed country shareholders. Nevertheless, World Bank president Ajay Banga has promised that the Fund will remain independent and will be operational by the end of Q1 2024, and so the first real test of the efficacy of this initiative will become clear then.⁶⁹

⁶⁵ https://www.ft.com/content/e4c0c0fc-cb2f-495a-ba22-4bad1ef4a7dc

⁶⁶ https://twitter.com/ClimateEnvoy/status/1730300930086555714

⁶⁷ https://www.aljazeera.com/news/2022/10/7/pakistan-flood-losses-estimated-at-40bn-ex-finance-

minister#:~:text=Al%20Jazeera%20looks%20into%20the,triggered%20humanitarian%20and%20financial%20crises.&text=Paki stan%20estimates%20the%20total%20losses,than%20the%20government's%20initial%20estimate.

⁶⁸ https://www.bloomberg.com/news/articles/2023-11-13/kerry-s-promise-of-millions-for-climate-damages-criticized

⁶⁹ https://www.ft.com/content/59b86449-7567-4458-926e-1c382ba2bc3d



b) Mitigation

Funding for climate mitigation has been the major focus of the climate finance debate over the past three decades, with the first major pledge for \$100 billion per annum from developed to developing countries being made in 2010 for payment by 2020. As shown above, this was not achieved, but the final GST statement did mention the a payment of almost \$90 billion in 2021 and the 'likelihood' of the goal being achieved in 2022. It noted that the COP:

Welcomes recent progress made by developed countries in the provision and mobilization of climate finance and notes the increase in climate finance from developed countries in 2021 to USD 89.6 billion and the likelihood of meeting the goal in 2022...⁷⁰

This is important for two reasons. Firstly, it highlights the pledge once again and implies the need for developed countries to continue to meet the target in the years up to 2025. Secondly, and most importantly for the developing countries, it quantifies the shortfall in 2021 and reminds the developed countries that they owe a top-up payment to fulfil their commitment. The total underpayment for 2020 and 2021 stands at \$27 billion and may be higher if the \$100 billion was not actually reached in 2022, while other statements in the GST statement urge developed countries to "fully deliver, with urgency" on their promise.

Some distraction from the continuing debate over the \$100 billion pledge was provided by alternative financing arrangements discussed at the COP. The GST conclusion noted one in particular as it welcomed:

...the pledges made by 31 contributors during the second replenishment of the Green Climate Fund, resulting in a nominal pledge of USD 12.833 billion to date, and encourages further pledges and contributions towards the second replenishment of the Fund...⁷¹

Again, although the pledges are impressive, they remain well below the figures required to meet the needs of the developing world and highlighted the need for alternative sources of funds both from public and private sources. The UAE again provided the initiative on this front, as it launched a \$30 billion climate finance fund (called Alterra) in partnership with Blackrock, Brookfield and TPG.⁷² At least \$5 billion of this will be directed at the Global South, and it was anticipated that the allocation of these funds could also open the way for more private sector investments to follow. Other initiatives announced on the Finance Day at COP included pledges from the Asian Development Bank, the Development Bank of Latin America, and the African Development Bank, leading the UAE to claim that more than \$80 billion had been mobilised during the first week of the conference.⁷³ Thereafter the momentum seemed to stall as the negotiations became more technical and by the end of the conference the question of the availability of green finance continued to loom large. With the debate over the New Collective Quantified Goal (NCQG) set to dominate negotiations in 2024, COP29 in Baku seems set to become the Finance COP.

c) Adaptation

As shown above, all discussions on the Global Goal on Adaptation eventually came back to money. Although some important targets were set for adaptation plans and monitoring systems, they will only be met if funds are provided to the developing world. In 2019 the funding target for adaptation had been set at just below \$20 billion per annum, but at COP26 in Glasgow in 2021 it was agreed that this figure should be doubled. This was again recognised in the final GST statement at COP28, but an increasing sense of urgency and desperation was also evident in the final statements, where the COP conference:

https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf

https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf

73 https://www.reuters.com/business/environment/who-is-pledging-climate-finance-cop28-how-much-2023-12-06/

⁷⁰ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, p.11, paragraph 76 sourced from

⁷¹ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Partis Agreement 13 December 2023, p.10, paragraph 78 sourced from

⁷² https://www.bloomberg.com/news/articles/2023-12-01/uae-aims-for-cop28-finance-splash-with-30-billion-climate-fund



Notes the efforts of developed country Parties to make progress in at least doubling adaptation finance from 2019 levels by 2025...

...urges developed country Parties to prepare a report on the doubling of the collective provision of climate finance for adaptation to developing country Parties from 2019 levels by 2025...

...recognizes that adaptation finance will have to be significantly scaled up beyond the doubling as per decision 1/CMA.3...

...highlights that the adaptation finance needs of developing countries are estimated at USD 215–387 billion annually up until 2030...⁷⁴

It is notable that no specific figure is mentioned in the text, reflecting the fact that there is even a debate around the historic 2019 figure on which it is based. The general consensus is that it was around \$19.5 billion, but some developed countries have argued that it was lower than this with the result that a specific target was omitted from the GST conclusions, somewhat weakening its impact. Furthermore, developed countries are urged to prepare a report on how the doubling of funding will occur, presumably to resolve the historic question, and are reminded that in fact much more funding will now be required. Indeed, the estimate that most observers were citing at the conference was that adaptation financing would need to reach almost \$400 billion by 2030, leading to the call from developing countries for this figure to be included as a specific decision in the final text (as noted above in Section 8).⁷⁵

Developed countries were reluctant to address the question of adaptation finance as a standalone item because of the impending debate on the overall NCQG in 2024, although the clear risk here is that adaptation will once again play second fiddle to funding for mitigation. Another problem that was highlighted in the talks is that developing countries are keen to receive grants rather than loans because they do not want to expand their debt and interest burdens further. However, this leaves little room for private capital to play a role, especially as it is already difficult to see how many of the adaptation projects can make a return on investment as they are more about preparedness than immediate revenue generation.⁷⁶ As a result, although adaptation as a topic received a boost at COP28, the question of how to finance it remains frustratingly unanswered.

d) The role of MDBs and other finance issues

Even before COP28 started, the role of the World Bank and other multilateral lending banks had been called into question, with developing countries arguing that they were not doing enough to finance the energy transition in the Global South. The final text of the GST addressed the issue directly, calling on:

...multilateral development banks and other financial institutions to further scale up investments in climate action and calls for a continued increase in the scale, and effectiveness of, and simplified access to, climate finance...⁷⁷

The World Bank president stated that his institution would boost the share of total annual climate finance in its portfolio from 35 per cent to 45 per cent and also would expand 'pause clauses' on outstanding debt to allow poorer countries hit by disasters to suspend repayments.⁷⁸ However, there were still calls for the Bank to expand its role in reducing the risk for private capital in developing countries by reducing its own lending returns and taking on some of the major risks in investments in the Global South.

⁷⁴ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, pp.10-11, paragraphs 77, 100, 68 and 86 respectively, sourced from https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf

⁷⁵ <u>https://www.brookings.edu/articles/the-successes-and-failures-of-cop28/</u>

⁷⁶ https://esgclarity.com/cop28-climate-change-adaptation-finance/

⁷⁷ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, pp.10-11, paragraph 69, sourced from

https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf

⁷⁸ Financial Times, 2 Dec 2023, "World Bank leader says climate loss and damage fund is a beginning"



Furthermore, the role of special drawing rights (SDRs) at the IMF was also debated, with the UAE stating that it would commit a further \$200 million of its rights to support climate resilience in developing countries. In addition, several other governments supported a proposal by the African Development Bank and the Inter-American Development Bank to channel the SDRs of developed countries to support climate finance in vulnerable countries.⁷⁹

The COP presidency was keen to recognise these initiatives in the final GST statement and included a rather general statement which:

Emphasizes the role of governments, central banks, commercial banks, institutional investors and other financial actors with a view to improving the assessment and management of climate-related financial risks...and accelerating the ongoing establishment of new and innovative sources of finance, including taxation...⁸⁰

Interestingly, taxation is also mentioned in this paragraph and refers to calls from a number of developing countries for a tax on major oil producers and/or on consumers in the major emitting sectors to finance the energy transition. This is clearly similar to a global carbon tax, that has so far proved elusive, but hints at targeted taxes on key players in the existing energy system that could cause further controversy. The EU's imminent introduction of a carbon border adjustment mechanism, which has the goal of creating a framework for discussion of a broader carbon tax, caused heated debate at the COP,⁸¹ and so it will be interesting to see if other forms of climate tax strategy can gain any traction before COP29.

10. Demand side management and hard-to-abate sectors – increasing attention on major consumers

While much of the hype at COP28 was focused on the role of fossil fuels, and in particular their production and the need to reduce it, important discussions also took place on the question of demand, especially in hard-to-abate sectors. Arguably the final GST document underplayed the importance of this issue as there was relatively little mention of the topic in any specific way, other than encouraging the acceleration of:

...the reduction of emissions from road transport on a range of pathways, including through development of infrastructure and rapid deployment of zero-and low-emission vehicles...⁸²

and noting:

...the importance of transitioning to sustainable lifestyles and sustainable patterns of consumption and production in efforts to address climate change, including through circular economy approaches, and encourages efforts in this regard...⁸³

Despite this lack of acknowledgement in the final text, a significant amount of discussion on the issues in hard-to-abate sectors did take place around the COP venues. Particular points of note included a focus on the role of cities in the creation of sustainable infrastructure, the launch of the 'Cement and Concrete Breakthrough' which aims to reduce the 7 per cent of global emissions which these sectors

https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf

Parties to the Paris Agreement 13 December 2023, p.5, para 28, point g) sourced from https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf

⁸³ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, p.6, para 36, sourced from https://unfece.ist/sites/default/files/resource/cma2023, l.17, adv.pdf

⁷⁹ https://www.afdb.org/en/news-and-events/press-releases/cop28-international-support-grows-channeling-imf-special-drawingrights-through-multilateral-development-banks-66663

⁸⁰ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Partis Agreement 13 December 2023, p.13 paragraph 96, sourced from

 ⁸¹ <u>https://www.politico.eu/article/brazil-anger-eu-carbon-tax-infiltrates-cop28-luiz-ignazio-lula-da-silva-china-india-south-africa/</u>
 ⁸² First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the



produce, and the 'Buildings Breakthrough' which is seeking to develop a model for near-zero emissions and resilient buildings by 2030.⁸⁴ Importantly too, the WTO announced the launch of a series of 'Steel Standards Principles' on the first day of COP28 which plan to align the methodologies for measuring and ultimately cutting GHG emissions in the steel sector.⁸⁵ There is significant overlap here with the efforts being made around measurement, reporting, and verification of emissions in the oil and gas sector and it will be interesting to see if any cross-fertilisation of ideas can occur ahead of the next COP.

In the transport sector several initiatives were also launched, including the opening of green shipping corridors, the signing of a joint commitment by thirty industry leaders on hydrogen for shipping, and plans for the global deployment of zero-emission buses. Meanwhile the Global Sustainable Aviation Forum highlighted the industry's drive towards the use of sustainable aviation fuels (SAFs) and suggested that they could cut aviation emissions by 60 per cent by 2050.⁸⁶ However, the issues of infrastructure and fuel availability were highlighted as key challenges, while the use of carbon offsetting was also seen as an important tool for the industry to meet its climate targets.

However, despite these initiatives, the overall sense from the COP was that there is a need for more collaboration between the demand and supply sides of the energy system, with the case of the supply of SAFs being a good example. Although the COP process is intended to provide guidance and targets for producers and consumers in the energy transition, a gap still exists as both sides effectively wait for the other to act. A more proactive producer-consumer dialogue may be essential if an efficient transition away from fossil fuels is to be managed without creating stranded assets, supply shortages and wild price volatility.

Overall conclusions and future COPS

COP28 was certainly more successful than many suspected it might be. The location of the event in a fossil-fuel producing country led to concerns that it might be dominated by the hydrocarbon lobbyists, and although they were certainly much in evidence, the inclusion of a statement on transition away from fossil fuels in the final document was undoubtedly a historic moment and a potentially critical turning point. Furthermore, renewable energy and energy efficiency received a major boost with aggressive plans to expand their impact in the rest of this decade.

Other successes included the finalisation of the loss & damage fund, the general sense of inclusivity encouraging debate on all potential technical solutions in the energy transition, and the overall management of a conference which hosted almost 100,000 delegates over the two weeks. The nuclear industry also hailed a welcome return to the climate debate, while the focus on methane emissions suggested that the reduction of emissions of this critical greenhouse gas has now become a short-term priority. Advocates of carbon capture and storage will also have been pleased with the increased focus on this technology.

As always at COPs there were also disappointments and caveats. The debate around Article 6 was not resolved and has been deferred to COP29, meaning that the carbon market did not get the boost it was hoping for. Perhaps more importantly, though, the nuances of the fossil fuel debate need to be fully understood. While there was a consensus that the role of oil, gas, and unabated coal must decline over time, there was a lack of definition about how much and at what pace. This is understandable because different countries have very different views on the topic, with producers in developing countries keen to use their resources and adamant that developed countries should move first and fastest on this issue. Furthermore, there is a risk that the role of CCUS could be exaggerated beyond the realms of reality. As a technology for hard-to-abate sectors it seems logical and suitable, but arguments for it being a

⁸⁴ https://www.mckinsey.com/capabilities/sustainability/our-insights/sustainability-blog/cop28-urbanization-and-transport

⁸⁵ https://www.steeltimesint.com/news/cop-28-launches-steel-standards-principles-to-align-emissions-measuring

⁸⁶ https://atag.org/events/global-sustainable-aviation-forum-cop28



source of 'net zero' oil are open to significant challenge and claims of greenwashing, especially as deployment is at a very early stage.

In addition, the overall role of fossil fuel companies and countries in the energy transition debate and the COP process needs to be monitored carefully. While there is a very logical argument for their inclusion, given the current importance of oil, gas, and coal in the energy system and the relevance of the debate around the economic impact of the transition to net zero, there is also a risk that their financial and political influence could sway the debate. At the very least, they will need to be held fully accountable for pledges made and actions taken, and to be called out for any lack of transparency and failure to increase investment in low- and zero-carbon technologies.

Another area of concern surrounds climate finance. The success of the loss & damage fund is offset by the small amounts of money committed to date. The possible achievement of the \$100 billion financing pledge by developed countries in 2022 is balanced with the need for this figure to increase by at least five times from 2025. The agreement to double financing for adaptation is undermined by a failure to have done so after COP26 and by the need for the annual figure to be ten times as much by 2030. Significant pledges of new money were made at COP28, and these should not be ignored, but the overall picture is one in which public finance and the multilateral development banks still need to provide a much clearer pathway to unlock the significant private capital that is needed to finance the energy transition in the developing world. COP29 must now be the Finance COP.

On a more positive note, though, global geopolitical tensions did not interfere with the environmental agenda as much as some had feared. Protests around the Israel/Gaza conflict did occur but were not disruptive, Russia intervened in support of fossil fuels but the war in Ukraine did not become a major topic, and relations between the US and China were if anything supportive rather than antagonistic. The friendship between John Kerry, the head of the US delegation, and Xie Zhenhua, his Chinese counterpart, once again helped to create a collaborative atmosphere between the world's two largest economies when it came to discussing climate imperatives. The concern going forward is that Xie is set to retire and Kerry, at 80 years of age, may also be stepping back from the world stage soon. It is to be hoped that their replacements are equally amenable to dialogue, as the state of relations between the world's two largest emitters of GHGs tends to set the mood for the COP conferences as a whole.

The COP process now moves onto Baku in Azerbaijan for COP29 and Belem in Brazil for COP30. Encouragingly the organisers of all three conferences are now coordinating to ensure continuity of the debate at this critical time. Questions about the efficacy of the COP process and its need for consensus agreement have re-emerged at COP28 but are of little real consequence given the urgency of the actions required. The process is fixed, and the Parties must now focus both on the new finance pledge for the 2025-2030 period, which needs to be agreed in 2024, and the production of more ambitious "ratcheted" NDCs for presentation at COP30. As the Global Stocktake revealed, the world is well off target to meet climate targets for 2050. Arguably 1.5° is no longer within reach, but this does not mean that countries should reduce their efforts to accelerate the energy transition and minimise any overshoot by 2030. To quote one last statement from the final GST decision at COP28, the conference:

...commits to accelerate action in this critical decade on the basis of the best available science, reflecting equity and the principle of common but differentiated responsibilities and respective capabilities...[and] underscores that the impacts of climate change will be much lower at the temperature increase of 1.5 °C compared with 2 °C and resolves to pursue efforts to limit the temperature increase to 1.5 °C.⁸⁷

⁸⁷ First global stocktake, Draft decision -/CMA.5, Agenda Item 4, Conference of the Parties serving as the meeting of the Parties to the Paris Agreement 13 December 2023, p.2, paragraphs 4 and 6, sourced from https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf