



Climate Action Tracker COP28 initiatives will only reduce emissions if followed through

11 December 2023





🕐 Key findings

Few of the sectoral initiatives announced during COP28 will meaningfully contribute to closing the emissions gap. Many of them lack either the ambition, clarity, coverage or accountability needed to really make a difference.

We estimate that of the total emissions savings that could be achieved by the pledges, around a quarter is already included in government NDCs, around a quarter is additional and achievable, and around half is unlikely to be achieved without further action to improve the initiatives.

A key highlight within the pledges is the Renewable Energy and Energy Efficiency Pledge, which could close about a third of the gap between current policies and 1.5°C in 2030 if fully implemented.

The "Oil and Gas Decarbonisation Accelerator" is a prime example of a greenwashing initiative by oil and gas companies. It only focuses on upstream emissions from oil and gas production – but the real change has to come from phasing out fossil fuels, where emissions are at least five times greater.

The pledge to scale carbon capture to a gigatonne is never going to happen by 2030. This pledge would need the announced pipeline of projects to more than double, and all be successfully implemented. For a technology with a long lead-time and a historical success record in CCS projects of around 20%, this is beyond the realms of plausibility.

The agriculture and food initiative is so vague as to risk becoming another talking shop.

Negotiations cannot rely on the initiatives' effect alone, but must set a clear direction in the conference texts on the direction that different sectors need to take. This must include committing to a fossil fuel phase-out alongside tripling renewables and doubling energy efficiency, and supporting this with the finance needed to make this possible.



Table of Contents

1	Introduction The theory of change – increasing climate action ambition of mitigation targets?		
2			
3	Estimated global effect on the emissions gap in 2030		
	3.1	The Renewable Energy and Energy Efficiency pledge – a praiseworthy global target which needs to turn into action	
	3.2	Oil and gas decarbonisation accelerator misses the point. production needs to phase out, not decarbonise.	
	3.3	Gigatonne CCS by 2030: never going to happen	
	3.4	Deforestation, agriculture and food systems: Aspirational ideas but with relatively limited impact by 2030	
	3.5	Global cooling pledge: Mostly summarising what's already being done	

1 Introduction

Since the start of COP28, the UAE presidency and other players have announced many international cooperative initiatives. Filtering the <u>UNFCCC database</u>, we find 74 "Pledges and Declarations" and "New Initiatives" at the time of writing.

The sheer amount of initiatives, their overlaps and the way they are packaged in different fora makes it difficult to understand what we can expect from them in terms of emission reductions. Here, the Climate Action Tracker assesses the likely impact of the initiatives on global emissions in 2030, and puts this potential impact in context with the reductions required by 2030 to limit temperature increase to 1.5°C.

While initiatives can be a valuable tool to increase climate ambition, the track record of such voluntary pledges to date has been very mixed. It is unlikely that the announced initiatives will therefore reach their full theoretical global potential, given the limited coverage of signatories, and the lack of accountability and follow up.

Much of the action contained in the initiatives would close the "implementation gap" - ie the gap between governments' current targets and their policies, but it doesn't increase actual ambition, ie to close the "ambition gap". Some of the initiatives appear to strongly overlap with pledges made under the Glasgow sectoral initiatives, so could be seen as a re-hashing of pledges that were already made.

There are places where initiatives could unlock further emissions cuts which are both realistic and achievable and which go beyond the action already contained in current NDCs/the Glasgow initiatives. However, their real and additional impact is smaller than what would be calculated, if overlap with the NDCs is ignored.

The initiative that represents most new action is the pledge to triple renewable capacity and double energy efficiency, for which global momentum is building. This is a very welcome development – but the pledge will need to be transformed into concrete implementation if it is to make a real difference.

Many of the other pledges are either unrealistic (e.g. scaling carbon capture to 1 $GtCO_2$ /year by 2030), or vaguely defined potential distractions from the real issue at hand (such as the pledge to cut production emissions from oil and gas production, which is poorly defined and could distract from the need to cut oil and gas production itself).

While initiatives can be a valuable component of climate action, the world and the negotiation process cannot rely on them to do the job alone.

Negotiators at COP need to work towards actionable, transparent and quantifiable pathways towards Paris Agreement-alignment and include a commitment to phasing-out fossil fuels and ramping up renewable energy in the formal COP outcome.

2 The theory of change – increasing climate action ambition of mitigation targets?

International Cooperative Initiatives have existed for many years, with the idea of bringing frontrunners together even if the governments cannot reach consensus in the negotiations on specific approaches and sectors. Before COP28 we counted <u>more than 500 such initiatives</u>, only 20% of which produce outputs that fit their originally-intended function. <u>COP26 in Glasgow, 2021, saw a host</u> of new announcements, very few of which have been tracked and verified in terms of implementation. The COP28 presidency again has invested lots of time and energy in establishing new initiatives.

There are different ideas as to how such initiatives can increase ambition:

- 1 **Put pressure on non-signatories to increase climate action.** At the start of an initiative, it's usually the case that the organisations or governments that sign up are those who have no trouble achieving the targets. Yet it is in the nature of exclusive club, that others will want to be part of them, for reputational reasons or because they hope to profit from the network. Those potential new members will actually need to increase their ambition to join.
- 2 **Provide confidence for countries to update their NDCs**. Many governments are careful in coming forward with emissions reduction targets they're not sure they can meet. If they, jointly with others, commit to actions in certain areas, they can feel more comfortable in increasing the ambition of their NDCs. As actions under initiatives get implemented, they could close the implementation gap between current policies and NDCs.

The Glasgow initiatives and similar initiatives in the past don't have a very positive track record regarding follow-ups and materialising into concrete climate action, let alone a positive upward spiral of ambition. The membership to the initiatives announced in Glasgow has barely increased since 2021¹ and as far as we know only the UK, has mentioned them in their NDCs submitted since then. None of the large emitters have increased the ambition of their 2030 NDCs since the Glasgow COP 2021. One positive development is that we do see a number of countries developing methane strategies, which the conversations around the Global Methane Pledge may have contributed to.

Given the experience over the last decade with voluntary initiatives and given the very apparent gap between action and the 1.5 °C pathway for 2030, legitimate questions can be asked about the role and significance of these kinds of initiatives. When the focus needs to be on increasing substantive action to close emissions gap and there's been very little movement in the space in the last two years, it is possible that these initiatives are doing little more than greenwashing a lack of action, no matter how good they appear to the casual observer.

The lack of accountability of the initiatives is seen by some as a positive: it makes it easy to sign up and potentially get drawn into conversations that increase ambition. But without proper accountability mechanisms to track how countries are complying with the pledges, their impact will be significantly limited.

If initiatives are carefully designed to include clear and quantifiable targets, with a focus on the key levers for emissions reductions, and are accompanied by accountability and tracking of country implementation, they can work for climate action. Without this, they risk just being another talking shop.

But ultimately, we can't rely on voluntary approaches alone. Governments need to follow up on the initiatives they sign through implementation at home. This has to mean government policies. The governments also need to keep an eye on areas covered by initiatives of non-government stakeholders. Given the negative track record of many initiatives, we urge governments to regulate the playing field, even if voluntary initiatives exist.

¹ The main exception being the Powering Past Coal Alliance (PPCA), which seven new members joined at COP28, including the USA.

3 Estimated global effect on the emissions gap in 2030

The initiatives started during COP28 have the potential, if fully implemented with global coverage, to reduce emissions beyond what would happen otherwise. However, multiple reasons lead us to the conclusion that the full achievement of the potential is highly unlikely and the <u>full potential</u> needs to be treated with care. We estimate that only a quarter of the full impact goes beyond current national targets and is in reach because:

1 Many governments will need the possible reductions from the announced initiatives to achieve their NDCs, but not to go beyond them (indicated through the upper part of the arrows in Figure 1). A signature increases the likelihood that the NDC is met, but, crucially, it does not narrow the gap between NDCs and 1.5°C. We estimate that approximately a quarter of the total impact of the pledges is repeating actions that would be need to meet current NDCs. As current policies are not sufficient to meet NDCs, such action which increases achievement of existing NDCs is still important. But it does not close the ambition gap between NDCs and 1.5°C.



Figure 1: Visual illustration of the effects of the initiatives in the context of the target gap for 2030. See Annex for methods and data sources.

- 2 There are also strong overlaps between the various COP28 initiatives themselves and the existing initiatives (indicated by not adding all arrows in Figure 1). For example, an increase in energy efficiency and renewable energy will imply less oil and gas demand, thus less emissions from oil and gas production and therefore less potential of the "oil and gas decarbonisation accelerator". There is also a large overlap with initiatives already put forward in Glasgow.
- 3 The lists of signatories so far miss major players (indicated through the lower part of the arrows in Figure 1). The most prominent example is China, which is not meaningfully covered by any mitigation-focused initiative. We expect China to triple its renewable energy capacity anyway, but it might not achieve the efficiency doubling. The initiative therefore has likely a lower impact than if all countries were on board.
- 4 Loopholes and lack of clarity within the initiatives themselves (some indicated in the text next to the arrows in Figure 1). If it is not clear what government are signing up to, they may interpret it very differently and may miss incentivising action.
- 5 Lastly, the question of implementation looms above all. There is no mechanism to hold signatories accountable to meet their targets, and under many initiatives, there are, in fact, no targets for individual signatories, rather for global targets.

3.1 The Renewable Energy and Energy Efficiency pledge – a praiseworthy global target which needs to turn into action

As of 7 December 2023, 130 governments have committed to working together to triple the world's renewable capacity to 11 TW and double the global average annual rate of energy efficiency improvements from around 2% to over 4% every year until 2030.

These countries cover 51% of global renewables capacity, 43% of global fossil fuel capacity, and 46% of primary energy supply in 2022. Almost all of the OECD has signed up to the pledge, while major Asian economies such as China, India and Indonesia have yet to do so.

The IEA's Net Zero scenario triples renewable capacity and doubles the global rate of energy efficiency improvements by 2030. These actions together cut emissions by ~9 $GtCO_2$ in 2030, compared to the STEPS scenario (which roughly represents current policies as estimated by the Climate Action Tracker). In other words, if fully implemented this pledge would close the presently estimated 2030 emission gap between current policies and 1.5°Cby 30-35%, or about a third.

It is not clear how the global target would be broken down to a national level and hence change current policy pathways in countries: the signatories only commit to contributing to the global target, not to tripling renewables and doubling energy efficiency themselves. Some governments, such as Brazil, have already signed up and made it explicit that they will not triple renewable capacity, while others will likely be able to go further than a tripling, as they are starting from a low base of installed capacity.

However, momentum towards tripling renewables is growing, even in countries which have not yet signed the pledge. China is already on track to more than triple its capacity by 2030 under current policies, and has agreed to this under the Sunnylands Statement. Today, the country holds about 34% of global RE capacity. Similarly, India's renewable capacity is set to grow around 2.7-fold under current policies.

If the governments who have signed up triple their renewable capacity collectively do so, while others follow a current policy trends scenario (aka the STEPS), the pledge would still lead to global installed renewable capacity reaching 9.8–10.7 TW. This closes 50-90% of the gap in renewable capacity from the STEPS (8.6 TW in 2030) and the IEA NZE (11 TW in 2030). This is to be welcomed and represents most of the "additional but achievable" new emissions reductions that the current set of initiatives could bring.

However, we need to also remember that not all of the impact of tripling/doubling represents additional action compared to the NDCs. In some countries, such as the EU and USA, much of this action will be needed to meet existing NDCs (which CAT rates as "Insufficient").

Energy efficiency must also not be forgotten. Without strong action to improve energy efficiency, electricity demand would grow faster and more than a tripling of renewables capacity would be needed. If the world triples renewables capacity but fails to address energy efficiency improvements and curb demand, emissions in 2030 would around 3 GtCO₂ higher.

It seems there is a greater appetite to triple renewables than double energy efficiency, but both are essential to achieving the reductions we need. Greater focus is needed on doubling energy efficiency improvements, which will be harder than tripling renewables.

3.2 Oil and gas decarbonisation accelerator misses the point. production needs to phase out, not decarbonise.

The Oil and Gas decarbonisation accelerator brings together national and international oil companies to reduce emissions that occur during the production of oil and gas, so-called scope 1 and scope 2 emissions.

It aims at net zero operations by or before 2050, near-zero methane emissions by 2030² and zero routine flaring by 2030.

If all governments were to sign up to this initiative, the reductions compared to the current policies scenario would be about 2 GtCO₂ in 2030,³ of which about 0.3 GtCO₂e are CO₂ reductions, the remainder methane.

The initiative risks being a distraction that misses the woods for the trees:

The 2030 focus is on flaring and fugitive emissions – but these are dwarfed by current emissions from oil and gas combustion. Emissions from oil and gas combustion today are $18.5 \, \text{GtCO}_2$, a factor of nine higher than fugitive emissions and flaring emissions. By 2050, the pledge covers all scope 1 and 2 emissions (fugitive, flaring, and upstream combustion emissions from oil and gas production). But even here, scope 3 emissions, i.e. the emissions from downstream combustion of the fuels are not covered by the initiative. Today scope 3 emissions are around four times greater than scope 1 and 2 emissions from oil and gas production.



Figure 2: Emissions from oil and gas extraction compared to oil and gas combustion.

Data source: For emissions from oil and gas extraction: <u>EDGAR</u>, category 1.B.2, for methane we used Global Warming Potential of 25, in line with the Climate Action Tracker global pathways. For emissions from oil and gas combustion: <u>WEO2023</u>. Note that emissions from oil and gas refining are included in the emissions related to combustion in this graphic.

The initiative itself states it covers 40% of global oil production; it does not mention its coverage of fossil gas production. A rough cross-check of the coverage of production by company shows that major producing countries are not meaningfully covered: none of China's national oil companies that

² The wording in the press release accompanying the <u>charter</u> varies, causing some uncertainty about the end target for methane (zero or near-zero), and the target year (no target year or 2030). The charter itself for methane sets the target of "Aiming for Near-Zero Upstream Methane Emissions by 2030."

³ Own calculations based on EDGAR emissions data. Because of a limited break down of data available, we were not able to separate out fugitive CO₂ emissions which are not part of the initiatives 2030 target. We optimistically assume however that fugitive CO₂ reduces at the same speed as CO₂ emissions from routine flaring.

produce domestically have signed up, and Russia is also largely uncovered by the pledge.

We also expect that for most countries, the effect of the initiative will not go beyond their NDC. For example, the US, Canada and Norway, all big oil and gas producers are way behind in meeting their 2030 emissions reduction targets, and they will need the reductions from this initiative to meet their current NDCs.

One country where the initiative could be yet another reason to finally update its NDC is Saudi Arabia, which already overachieves its "Critically Insufficient" NDC by far and its upstream emissions from oil and gas production are huge. For this country, reducing methane to zero by 2030 would make a difference of around 0.1 GtCO₂e, and Saudi Aramco, which dominates oil production there, has signed up to the "Accelerator." CO₂ emissions from flaring amount to a much smaller number.

The situation is similar for other big producers like Iran, Iraq, Angola, Nigeria, Venezuela and Qatar. However, the coverage of production by signatories is less clear. If these countries were fully covered by the Accelerator's signatories, 0.7 GtCO₂ in 2030 would fall under the initiative's targets, including the target of zero methane and zero routine flaring (both for 2030).

The likely effect on emissions of this initiative is negligible, and it fosters investment into the oil and gas industry, at a time when the sector should be looking at transitioning away from the extraction and processing of fossil fuels. The initiative is built around oil and gas production by national and international corporations. To meaningfully transition the oil and gas sector towards a Paris-aligned future, suppliers and buyers of fossils need to work together.

3.3 Gigatonne CCS by 2030: never going to happen

The <u>Carbon Management Challenge</u> was announced in April 2023 and focuses on 'abating' emissions from fossil fuels. At COP28 members of the Challenge announced an aspirational target of reaching <u>1 GtCO2/year of CCS</u> deployed by 2030 (across fossil CCS and also CCS-based carbon removal approaches, I.e. BECCS and DACCS).

This is going to be incredibly hard to achieve. To put those numbers into context, current CCS "announced" capacity is sitting at around 45 MtCO₂/year. However, real world capture rates for CCS projects often fall well short of their announced capacity, and the majority of operational CCS projects use the captured CO₂ to extract more oil.

While the pipeline of future projects is growing, past experience would caution strongly against assuming all projects will proceed successfully to full deployment – only 20% of past demonstration projects have made it through to FID. Even if the success rate grows three-fold, 2030 capacity would only reach around 300 MtCO₂/year.

So to reach 1 GtCO₂/year would require the pipeline to more than double, and the success rate to reach 100%. Given the lead-times in developing CCS projects can often be more than seven years, this doubling in announced capacity would have to happen now. This just doesn't seem likely, again showing the truth: CCS will play a marginal role in cutting emissions out to 2030. The focus has to remain on renewables, energy efficiency and phasing out fossil fuels.

3.4 Deforestation, agriculture and food systems: Aspirational ideas but with relatively limited impact by 2030

At COP28, over 130 world leaders agreed to accelerate action to cut emissions from agriculture and food systems via the <u>Food and Agriculture Declaration</u>. With agriculture responsible directly for over 10% of global emissions, and indirectly responsible for much more via its impact on deforestation, increased focus on this is welcome.

However, the declaration is heavy on words and light on numbers – with no quantifiable targets. This makes estimating the impact difficult. <u>Analysis</u> by the Energy Transitions Commission suggests a plausible impact of around 0.5 GtCO₂e by 2030, with potential additional impact of up to 2 GtCO₂e. Given our experience of how well vaguely worded and aspirational pledges translate into real-world emissions reductions, we are not hopeful that this upper range will be delivered.

COP28 also saw some minor new finance pledges to end deforestation, including finance for key countries such as Indonesia and the Democratic Republic of Congo. This funding comes in at the 100s of millions of dollars. In comparison, we will need to mobilise billions of dollars to end deforestation by 2030. And these declarations of funding are not truly new – they represent a repeat of the commitments already made at COP26 in Glasgow. The CAT therefore sees little additionality in these announcements – with the need for new and substantive action to curb deforestation still urgently lacking.

3.5 Global cooling pledge: Mostly summarising what's already being done

The Global Cooling Pledge brings stakeholders together to collaborate on different aspects related to cooling, including the phase-down of fluorinated gases as agreed in the Kigali Amendment and increasing the efficiency of cooling equipment and buildings. Its target is to "reduce cooling-related emissions by at least 68% globally relative to 2022 levels by 2050, [...] with significant progress and expansion of access to sustainable cooling by 2030".

In comparison to the Kigali Amendment, the Cooling Pledge includes not only direct emissions (F-gases) but also indirect emissions (energy emissions). However, most NDCs already include energy efficiency or decarbonisation targets. China is the one country to look at when speaking about fluorinated gases, which are not covered in its NDC and are huge, but it has not signed up to this pledge. So overall, we do not expect a meaningful additional contribution to emissions reductions.

It also remains unclear whether the Pledge's objective is tied to a specific year or the total cumulative emissions by 2050, which may complicate the tracking and monitoring progress. The pledge states no quantitative targets before 2050.

Annex: Initiatives covered in this briefing and methods and data sources

This Annex describes the initiatives that we found most critical for mitigation efforts, and the origin of the sizes of the arrows in Figure 1. Because of the uncertainty of various dimensions of the initiatives, the arrows in this visual are intentionally not attached to a number but illustrate the order of magnitude of potential effects.

Table 1: Visual illustration of the effects of the initiatives in the context of the target gap for 2030.See Annex for methods and data sources.

Name of initiative	Quantitative targets directly related to GHG emissions reductions	Methods and data sources for Figure 2
<u>Global Renewables and Energy</u> <u>Efficiency Pledge</u>	Triple global installed renewable energy generation capacity to at least 11,000 GW by 2030.	Order of magnitude based on analysis of IEA STEPS and Net Zero Pathway.
	Double the global average annual rate of energy efficiency improve- ments from around 2% to over 4% every year until 2030.	To estimate coverage we use data from Ember, IRENA and the IEA. To estimate overlap with NDCs, we looked at qualitative information for the largest economies.
<u>Charter for Oil & Gas</u> <u>Decarbonisation Accelerator</u>	Net-zero operations by or before 2050.	Size of arrows reflects our own estimates based on EDGAR, IEA oil and gas production forecasts and CAT country assessments. To estimate coverage and overlap with NDCs, we looked at qualitative information for the key producers.
	Near-zero upstream methane emissions by 2030.	
	Zero Routine Flaring by 2030.	
		For the near-zero methane target, we stick to the target year as described in the <u>charter itself</u> , rather than the press release which includes a more ambiguous formulation. As a simplification we assume "near-zero" to be zero in our calculations.
Carbon Management Challenge	Expand carbon management projects to reach gigaton scale annually by 2030.	Analysis of pipeline of announced CCS projects.
Declaration on Sustainable Agriculture, Resilient Food	No targets directly targeting emissions reductions.	No quantifiable targets in the initiative text.
Systems, and Climate Action		Energy Transitions Commission analysis estimates a potential of 1-4 GtCO2e in 2030.
<u>Global Cooling Pledge</u>	Reduce cooling-related emissions by at least 68% globally relative to 2022 levels by 2050, [] with significant progress and expansion of access to sustainable cooling by 2030.	No quantifiable target for 2030.

The size of the arrows of the Glasgow initiatives is based on the <u>Climate Action Tracker briefing</u> <u>from 2021</u>. Recently, <u>Kazakstan, Turkmenistan and Angola joined the Global Methane Pledge</u>. Their methane emissions today are at around 0.15 Gt jointly, i.e. the possible reductions by them joining is not visible on the scale of our visual. The USA, along with some smaller emitters, <u>has joined the Powering Past Coal Alliance</u>, but we do not find an improvement beyond their NDC and also wonder why they are referring to "unabated" coal only.

The "<u>Industrial Transition Accelerato</u>r" is an initiative that brings together different players working towards limiting temperature increase to 1.5°C across heavy-emitting sectors. Insufficient information was available at the time of writing to meaningfully quantify the initiative.

The presidency also launched a declaration of intent on the "<u>mutual recognition of certification</u> <u>schemes for renewable and low-carbon hydrogen and derivates</u>". This can be an enabler for hydrogen production as an important source of energy and feedstock for selected processes in a 1.5°C-compatible scenario. Yet the direct effect on emissions will be difficult to prove.

The <u>Declaration of Climate, Relief, Recovery and Peace</u>, as well as the <u>Declaration on Climate and</u> <u>Health</u> have links to emissions reductions, yet the actions described would not lead to direct effects on emissions.

Authors



Climate Analytics Bill Hare

Neil Grant

Acknowledgments We would like to thank the wider <u>CAT team</u> for their work on country assessments, which contributed to this briefing.

Authors names are listed alphabetically



NewClimate Institute

Hanna Fekete Niklas Höhne

Editing Cindy Baxter

Design Carly Merrett Matt Beer

<u>Corrigendum</u>: An earlier version of this briefing excluded methane from the target of the oil and gas decarbonisation accelerator due to conflicting information at that time.

CAT Consortium



The Climate Action Tracker (CAT) is an independent scientific project that has been tracking climate action since 2009. We track progress towards the globally agreed aim of holding warming well below 2°C, and pursuing efforts to limit warming to 1.5°C.

climateactiontracker.org



NewClimate Institute is a non-profit institute established in 2014. NewClimate Institute supports research and implementation of action against climate change around the globe, covering the topics international climate negotiations, tracking climate action, climate and development, climate finance and carbon market mechanisms. NewClimate Institute aims at connecting up-to-date research with the real world decision making processes.

Contact: Prof. Dr. Niklas Höhne, +49 173 715 2279

newclimate.org



Climate Analytics is a non-profit institute leading research on climate science and policy in relation to the 1.5°C limit in the Paris Agreement. It has offices in Germany, the United States, Togo, Australia, Nepal and Trinidad and Tobago.

Contact: Dr. h.c. Bill Hare, +61 468 372 179

climateanalytics.org