

# Policy Brief

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## Taking stock of supply: Where next for fossil fuels after COP28?



### 1. Where are we now?

As the more than 100,000 attendees of COP28 in Dubai, United Arab Emirates (UAE), head back to their respective nations, the real work of implementing transformative climate action begins.

The concluding Global Stocktake text achieved a first in the 28 years of meetings of the conference of the parties on climate change: it names fossil fuels and “calls upon” countries to transition away from their use in a “just, orderly and equitable manner, accelerating action in this critical decade”.<sup>1</sup> While emphatic language around “phasing-out” fossil fuels failed to make the final text, this outcome – in the words of UN Secretary-General Antonio Guterres – “recognizes the need to transition away from fossil

fuels – after many years in which the discussion of this issue was blocked”.<sup>2</sup> Despite the disappointment of multiple observers, COP28 has seen fossil fuels placed firmly on the negotiating table within international climate negotiations. This is a move that cannot be reversed. Even opponents of such a move recognise the ground is shifting. A leaked letter from OPEC, the oil exporting cartel, noted alarm that “pressure against fossil fuels may reach a tipping point with irreversible consequences”.<sup>3</sup>

This outcome comes amid growing recognition from bodies as diverse as the International Energy Agency (IEA), the Intergovernmental Panel on Climate Change (IPCC) and the United Nations (UN) that it will be impossible to meet global temperature goals unless the continued production of fossil fuels is proactively limited.

<sup>1</sup> UNFCCC, 2023, ‘Outcome of the first global stocktake’, [https://unfccc.int/sites/default/files/resource/cma2023\\_L17\\_adv.pdf](https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf)

<sup>2</sup> UN Secretary-General, 2023, ‘Secretary-General’s statement at the closing of the UN Climate Change Conference COP28’, <https://www.un.org/sg/en/content/sg/statement/2023-12-13/secretary-generals-statement-the-closing-of-the-un-climate-change-conference-cop28>

<sup>3</sup> *The Guardian*, 2023, ‘Opec rails against fossil fuel phase-out at Cop28 in leaked letters’, <https://www.theguardian.com/environment/2023/dec/08/opec-rails-against-fossil-fuel-phase-out-at-cop28-in-leaked-letters>

As almost 90% of global CO<sub>2</sub> emissions come from the production and use of fossil fuels,<sup>4</sup> a laser focus on phasing-out the use of coal, oil and gas is essential for keeping the goals of the Paris Agreement alive. This fact was brought front and centre during the COP summit.

In what is a crucial decade for meaningful climate action, deep cuts to fossil fuel production are required. In IPCC mitigation scenarios consistent with limiting warming to 1.5°C with no or limited overshoot, coal, oil and gas production from 2020 through to 2050 must decline on average by 95%, 62% and 42%, respectively.<sup>5</sup> In scenarios where the scaling up of carbon dioxide removal (CDR) technologies is constrained, deeper reductions are required.<sup>6</sup> Despite this, governments around the world are set to expand production significantly. By 2030, they are forecast to produce 110% more fossil fuels that are permissible under a 1.5°C trajectory and 69% more than in a 2°C scenario.

The governments set to expand production the most are some of the wealthiest industrialised nations on earth, which have benefited the most from fossil-fuelled development and have the greatest capacity to fund a rapid energy transition.<sup>7</sup> Moreover, continuing production and use of fossil fuels will lock-in other harmful impacts alongside climate change, including deadly air pollution that kills an estimated 5.13 million people a year,<sup>8</sup> and the environmental pollution and degradation caused throughout the fossil fuel value chain, which could be compromising the collective ability to meet the UN's Sustainable Development Goals (SDGs).<sup>9</sup> Many of these impacts fall disproportionately on Black, Indigenous, People of Colour (BIPOC) communities, through forced displacements, violence, human rights abuses, diseases and other diseases related to pollution and environmental degradation.<sup>10</sup> These communities have made a negligible contribution to both historical and current emissions.<sup>11</sup> While discussions over phasing out fossil fuels have risen to the top of the agenda, the necessity of embracing fairness and equity as part of the phase-out has not been widely recognised by some of the largest producers.

With the summit now over, it is worth taking stock of collective efforts to address fossil fuel production and charting pathways forward. This briefing from the SUS-POL project at the University of Sussex<sup>12</sup> seeks to contextualise the outcome of COP28 in light of the growing momentum to implement supply-side climate policies. Such policies, which come in diverse forms and serve differing functions, are those that seek to regulate, restrict and prevent fossil fuel production. After three decades of limited progress towards cutting global emissions,<sup>13</sup> policies that restrict the supply of fossil fuels are fast becoming the litmus test of true climate ambition and leadership.

## 2. What needs to be done? Bridging the many gaps

There are two major gaps that are hampering collective efforts to achieve the goals of the Paris Agreement: the Emissions Gap and the Production Gap. When taken together, these two gaps lay bare another gap: the policy gap, more accurately described as a chasm.

### 2.1 STILL LAGGING, STILL LACKING: THE EMISSIONS GAP

Since the Paris Agreement was signed in 2015, countries have introduced policies or pledged to do so in order to cut emissions through their Nationally Determined Contributions (NDCs). Although some progress has been made in the scope and ambition of climate policies, based on current commitments emissions are projected to be 3% higher than they are today, according to the latest UN Emissions Gap report.<sup>14</sup> To reach the goals of the Paris Agreement, emissions must fall by 42% by 2030 to align with the 1.5°C pathway and by 28% for a 2°C pathway - not increase by 3%.<sup>15</sup>

<sup>4</sup> Friedlingsten et al., 2022, 'Global Carbon Budget 2022', *Earth System Science Data*, <https://doi.org/10.5194/essd-14-4811-2022>

<sup>5</sup> Achakulwisut et al., 2023, 'Global fossil fuel reduction pathways under different climate mitigation strategies and ambitions', *Nature Communications*, <https://doi.org/10.1038/s41467-023-41105-z>

<sup>6</sup> Ibid.

<sup>7</sup> Muttitt & Kartha, 2020, 'Equity, climate justice and fossil fuel extraction: principles for a managed phase out', *Climate Policy*, <https://doi.org/10.1080/14693062.2020.1763900>

<sup>8</sup> Lelieveld et al., 2023, 'Air pollution deaths attributable to fossil fuels: observational and modelling study', *BMJ*, <https://doi.org/10.1136/bmj-2023-077784>

<sup>9</sup> Daley & Lawrie, 2022, 'Fuelling Failure: How coal, oil and gas sabotage all seventeen Sustainable Development Goals', *Fossil Fuel Treaty*, <https://fossilfuel treaty.org/fuelling-failure>

<sup>10</sup> Jordhus-Lier et al., 2021, 'Alienating assemblages: Working the carbonscape in times of transformation', *Progress in Human Geography*, <https://doi.org/10.1177/03091325211018730>

<sup>11</sup> Oxfam, 2023, 'Climate Equality: A planet for the 99%', *Oxfam*, <https://policy-practice.oxfam.org/resources/climate-equality-a-planet-for-the-99-621551/>

<sup>12</sup> University of Sussex, n.d., 'SUS-POL', <https://www.sussex.ac.uk/research/projects/sus-pol/>

<sup>13</sup> Stoddard et al., 2021, 'Three decades of climate mitigation: why haven't we bent the global emissions curve?', *Annual Review of Environment and Resources*, <https://doi.org/10.1146/annurev-environ-012220-011104>

<sup>14</sup> UN Emissions Gap Report, 2023, 'Broken Record: Temperatures hit new highs, yet world fails to cut emissions (again)', *UNEP*, <https://www.unep.org/resources/emissions-gap-report-2023>

<sup>15</sup> Ibid.

As things stand, if all the current conditional policies in nations' NDCs are fully implemented then temperatures could reach 2.5°C this century.<sup>16</sup> Yet this forecast – which would still have devastating impacts on humans and non-humans alike – may be optimistic. Recent analysis concluded that for a 50% chance of preventing average global temperatures breaching 1.5°C, the remaining carbon budget (RBC) sits at 250 gigatonnes of CO<sub>2</sub> as of January 2023.<sup>17</sup> This is equivalent to roughly six years of current carbon emissions.<sup>18</sup> Worse still, big uncertainties remain over the contribution of non-CO<sub>2</sub> emissions to global heating.<sup>19</sup>

The outcome of COP28 provided additional guidance for states to start preparing the next round of NDCs and foster deeper international collaboration, but there is a clear need for wealthier nations to push harder and faster to close the emissions gap. This can be achieved both through ramping up ambition within their NDCs, but also helping to address other vital factors, such as reforming the global financial system.

## 2.2 MORE FUEL ON THE FIRE: THE PRODUCTION GAP

A rapid, managed and equitable fossil fuel phase-out in the near term is required to achieve the goals of the Paris Agreement.<sup>20</sup> Already the expected emissions from existing and operational fossil fuel infrastructures – often referred to as 'committed emissions' – exceed the remaining carbon budget permissible under the Paris Agreement.<sup>21</sup>

Given this stark reality and dwindling window for action, governments around the world should be working towards a comprehensive and coordinated plan for equitably phasing-out fossil fuels, while scaling up clean energy technologies and protecting affected workers and communities through a just transition. However, this is not happening. Instead governments and investors around the world are set to expand fossil fuel production far beyond what is permissible under the Paris Agreement.<sup>22</sup> And, as the COP28 outcome makes plain, there is still a reluctance to acknowledge the necessity of a fast, fair and funded fossil fuel phase-out.

Some nations are expanding fossil fuel production more than others. In fact, research from Oil Change International shows that just 20 nations are responsible for almost 90% of carbon emissions from new oil and gas infrastructures planned up to 2050.<sup>23</sup> If this group of nations – which includes the USA, Australia, the UK, Norway and Canada – were to pursue planned new extraction, alone they would exceed the 1.5°C carbon budget by 190%.<sup>24</sup>

The USA is the nation that is set to expand oil and gas the most, followed by Russia and Canada, although the COP28 host, the UAE, is also planning extensive expansion. Between 2023 and 2025 the UAE is set to be the third-largest expander of oil and gas production, with the Abu Dhabi National Oil Company (ADNOC) poised to be the second-largest company expanding production.<sup>25</sup> ADNOC, whose CEO is Sultan Al-Jaber, the official Head of COP28, is set to produce enough fossil fuels over the next three years to emit 2.7 gigatonnes of CO<sub>2</sub> if burnt – the same amount emitted by the entire European Union in a year.<sup>26</sup>



<sup>16</sup> Ibid.

<sup>17</sup> Lamboll et al., 2023, 'Assessing the size and uncertainty of remaining carbon budgets', *Nature Climate Change*, <https://doi.org/10.1038/s41558-023-01848-5>

<sup>18</sup> Ibid.

<sup>20</sup> 'A rapid and managed fossil fuel phase-out is required to stay within the Paris Agreement target range', 10 Insights Climate Science, 2023, [https://10insightsclimate.science/wp-content/uploads/2023/12/10NICS-2023-Report\\_digital.pdf](https://10insightsclimate.science/wp-content/uploads/2023/12/10NICS-2023-Report_digital.pdf)

<sup>21</sup> Trout et al., 2021

<sup>22</sup> SEI, Climate Analytics, E3G, IISD, UNEP, 2023, "'Phasing down or phasing up?'" Top fossil fuel producers plan even more extraction despite climate promises', *UN Production Gap*, [https://productiongap.org/wp-content/uploads/2023/11/PGR2023\\_web\\_rev.pdf](https://productiongap.org/wp-content/uploads/2023/11/PGR2023_web_rev.pdf)

<sup>23</sup> Oil Change International [OCI], 2023, 'Planet Wreckers', <https://priceofoil.org/content/uploads/2023/09/OCI-Planet-Wreckers-Report-Final.pdf>

<sup>24</sup> Ibid.

<sup>25</sup> Oil Change International, 2022, 'Investing in Disaster', [https://priceofoil.org/content/uploads/2022/11/Investing\\_In\\_Disaster.pdf](https://priceofoil.org/content/uploads/2022/11/Investing_In_Disaster.pdf)

<sup>26</sup> Oil Change International, 2023, 'COP28: Don't believe ADNOC's spin over its new climate commitments', <https://priceofoil.org/2023/08/03/cop28-dont-believe-adnocs-spin-over-its-new-climate-commitments/>

The geographical dimensions of the Production Gap throw up a host of challenges pertaining to both equity and geopolitics. Research and analysis on ‘carbon bombs’ – fossil fuel reserves that contain potential emissions over one gigatonne of CO<sub>2</sub> – shows that the potential emissions from the 425 carbon bombs around the world are roughly double the remaining carbon budget for 1.5°C.<sup>27</sup> There are 10 countries with more than 10 carbon bombs: China has 141, Russia oversees 41, the USA has 28, Iran with 24, Saudi Arabia oversees 23.5, Australia has 23, India with 18, Qatar has 13, Canada with 12, and Iraq with 11.<sup>28</sup> As many of these projects are yet to enter production, supply-side climate policies and advocacy efforts can be targeted towards the governments and businesses that have jurisdiction over them.



### 2.3 WALKING THE TALK: THE POLICY GAP

With governments planning to expand fossil fuel production and current policy pledges falling short, humanity faces a vast and widening policy gap that must be bridged. This policy gap is visible through:

- **The current failure of large producing governments** to acknowledge the disconnect between their stated climate ambitions and future production plans. Analysis found that, while many large producers mention production in their NDCs under the Paris Agreement, most of these mentions are made in relation to continuing or even expanding production, especially among the largest producers such as Canada, Kuwait, China, Saudi Arabia, the USA, Australia and the UAE.<sup>29</sup> Even in the face of mounting evidence, there is persistent resistance to acknowledging the necessity of a fossil fuel phase-out.
- **The ongoing failure of the financial system** to adequately incorporate the economic and investment risks posed by continued expansion of production. Some analysts put the estimated value of fossil fuel infrastructure at risk of stranding at above \$30 trillion by 2050 under a net-zero scenario.<sup>30</sup>
- **Ongoing use of fossil fuel subsidies** by governments around the world. The International Monetary Fund (IMF) estimated that explicit subsidies for fossil fuel production doubled in 2023 to \$1.3 trillion.<sup>31</sup> Although many nations have pledged to reform or redirect fossil fuel subsidies, most commitments do not contain clear deadlines, are ambiguous in the types of subsidies they cover, and lack a defined clear route to reform.<sup>32</sup>
- **The continuing dearth of climate finance** made available to developing countries to pursue alternative development pathways that do not lock-in fossil fuel energy systems. The unwillingness of wealthy developed nations to deliver substantial climate finance has long since stymied progress at COP summits. According to the Independent High-Level Expert Group on Climate Finance, approximately \$2.4 trillion of annual investment is needed by 2030 in developing countries (excluding China) across the areas of just transitions, loss and damage, adaptation and resilience, and conservation and restoration of nature.<sup>33</sup> Even with the flurry of announcements and commitments at COP28, there is still an urgent need to ramp-up commitments in each of these respective areas.

<sup>27</sup> Kuhne et al., 2022, 'Carbon bombs – Mapping key fossil fuel projects', *Energy Policy*, <https://doi.org/10.1016/j.enpol.2022.112950>

<sup>28</sup> Ibid.

<sup>29</sup> Jones et al., 2023, 'Connecting the dots: Mapping references to fossil fuel production in national plans under the UNFCCC for the 2023 Global Stocktake', *Stockholm Environment Institute*, <https://www.sei.org/publications/fossil-fuel-production-2023-global-stocktake/>

<sup>30</sup> Yen-Heny Henry Chen et al., 2022, 'An economy-wide framework for assessing the stranded assets of energy production sector under climate policies', *Climate Change Economics*, <https://doi.org/10.1142/S2010007823500033>

<sup>31</sup> IMF, 2023, 'IMF Fossil Fuel Subsidies Data: 2023 Update', *IMF*, <https://www.imf.org/en/Publications/WP/Issues/2023/08/22/IMF-Fossil-Fuel-Subsidies-Data-2023-Update-537281>

<sup>32</sup> Van Asselt & Skovgaard, 2021, 'Reforming fossil fuel subsidies requires a new approach to setting international commitments', *One Earth*, <https://doi.org/10.1016/j.oneear.2021.10.019>

<sup>33</sup> High-Level Expert Group on Climate Finance, 2023, 'A climate finance framework: decisive action to deliver on the Paris Agreement', *LSE GRI*, <https://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2023/11/A-Climate-Finance-Framework-IHLEG-Report-2-SUMMARY.pdf>

- **The growing consensus that carbon capture and storage (CCS) technologies** will have to be deployed at scale to compensate for, and justify, continued fossil fuel production and use. This route could cost at least \$30 trillion by 2050 compared to a 1.5°C trajectory based on renewable energy, energy efficiency, and electrification.<sup>34</sup> The COP28 outcome text called upon countries to accelerate the roll-out of “abatement and removal technologies such as carbon capture and utilization and storage”,<sup>35</sup> despite their limited ability to be scaled and reduce emissions reductions within the necessary timeframes. The Institute for Energy Economics and Financial Analysis finds in addition that (i) captured carbon has mostly been used for enhanced oil recovery (EOR); (ii) successful CCUS exceptions mainly exist in the natural gas processing sector serving the fossil fuel industry, leading to further emissions and; (iii) using carbon capture as a greenlight to extend the life of fossil fuels power plants is a significant financial and technical risk.<sup>36</sup>

Potential routes for bridging this policy gap to address fossil fuel production is explored further in Section 5.

### 3. What’s stopping us? The sticky, tricky politics of fossil fuel production

The fossil fuel phase-out challenge is vast given the scale and complexity of the global fossil fuel energy system, the fact that it is embedded into the daily existence of billions of people and the fierce resistance of incumbent interests that stand to lose out financially and politically from a wholesale shift to renewable energy.<sup>37</sup> Despite the overwhelming evidence that a rapid, equitable and managed fossil fuel phase-out is necessary for achieving the goals of the Paris Agreement, it appears that the global climate regime is no closer to creating a coherent plan for this eventuality.

While analysing the many challenges and their unique dynamics is beyond the scope of this briefing, there are a variety of barriers that were made apparent at COP28 and beyond it. These included:

- **Climate obstruction from powerful fossil fuel interests** continues to stymie progress towards phasing out fossil fuels. At COP28 at least 2,456 fossil fuel lobbyists had access to the summit, making the fossil fuel industry the biggest delegation after hosts UAE and Brazil.<sup>38</sup> According to analysis from Kick Big Polluters Out, fossil fuel lobbyists have received more passes for COP28 than all the delegates from the ten most climate vulnerable nations combined.<sup>39</sup> The majority of the access was provided through trade associations, with the Geneva-based International Emissions Trading Association (IETA) bringing the largest delegation that included employees from Shell, TotalEnergies and Equinor.<sup>40</sup> Of these 2,456 fossil fuel lobbyists, at least 475 were individuals specifically lobbying for CCS technologies.<sup>41</sup>
- **Fierce resistance from large producer states and attempts to derail climate negotiations** have always been a feature of COP summits – and COP28 was no different. During negotiations Saudi Arabia was exposed for attempting to block any language on fossil fuel phase-out being included into the text,<sup>42</sup> marking a continuation of Saudi Arabia’s strategy of obstructing progress since the inception of UN climate talks.<sup>43</sup> Alongside this, the chief of the Organization of the Petroleum Exporting Countries (OPEC) wrote a letter to its members warning that “pressure against fossil fuels [at COP28] may reach a tipping point with irreversible consequences”, appealing to its members to “proactively reject any text or formula that targets energy, ie fossil fuels, rather than emissions”.<sup>44</sup>
- **Geopolitical uncertainty and ongoing conflicts** have reconfigured governments’ approaches to energy security, with many nations prioritising domestic production<sup>45</sup> or attempting to sure up long-term deals with established<sup>46</sup> and emergent producers.<sup>47</sup>

<sup>34</sup> Bacilieri et al., 2023, ‘Assessing the relative costs of high-CCS and low-CCS pathways to 1.5 degrees’, *Oxford Smith School of Enterprise and the Environment*,

<sup>35</sup> UNFCCC, 2023, ‘Outcome of the first global stocktake’, [https://unfccc.int/sites/default/files/resource/cma2023\\_L17\\_adv.pdf](https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf)

<sup>36</sup> Institute for Energy Economics and Financial Analysis, 2022, ‘The Carbon Capture Crux: Lessons Learned’, <https://ieefa.org/resources/carbon-capture-crux-lessons-learned>

<sup>37</sup> Newell & Paterson, 1998, ‘A climate for business: global warming, the state and capital’, *Review of International Political Economy*, 5(4), 679-703.

<sup>38</sup> Kick Big Polluters Out, 2023, ‘Release: Record number of fossil fuel lobbyists attend COP28’, <https://kickbigpollutersout.org/articles/release-record-number-fossil-fuel-lobbyists-attend-cop28>

<sup>39</sup> Ibid.

<sup>40</sup> Ibid.

<sup>41</sup> *The Guardian*, 2023, ‘At least 475 carbon-capture lobbyists attending Cop28’, <https://www.theguardian.com/environment/2023/dec/08/at-least-475-carbon-capture-lobbyists-attending-cop28>

<sup>42</sup> *New York Times*, 2023, ‘Saudi Arabia Is Trying to Block a Global Deal to End Fossil Fuels, Negotiators Say’, <https://www.nytimes.com/2023/12/10/climate/saudi-arabia-cop28-fossil-fuels.html>

<sup>43</sup> Depledge et al., 2023, ‘Decades of Systematic Obstructionism: Saudi Arabia’s Role in Slowing Progress in UN Climate Negotiations’, *CSSN Issue Paper*, <https://cssn.org/wp-content/uploads/2023/11/Decades-of-Systematic-Obstructionism-CSSN-Issue-Paper3.pdf>

<sup>44</sup> *The Guardian*, 2023, ‘Opec rails against fossil fuel phase-out at Cop28 in leaked letters’, <https://www.theguardian.com/environment/2023/dec/08/opec-rails-against-fossil-fuel-phase-out-at-cop28-in-leaked-letters>

<sup>45</sup> UK Gov, 2023, ‘Hundreds of new North Sea oil and gas licences to boost British energy independence and grow the economy’, <https://www.gov.uk/government/news/hundreds-of-new-north-sea-oil-and-gas-licences-to-boost-british-energy-independence-and-grow-the-economy-31-july-2023>

<sup>46</sup> *The Guardian*, 2022, ‘Germany agrees 15-year liquid gas supply deal with Qatar’, <https://www.theguardian.com/world/2022/nov/29/germany-agrees-15-year-liquid-gas-supply-deal-with-qatar>

<sup>47</sup> Reuters, 2022, ‘Mozambique’s first LNG exports to Europe seen by early November’, <https://www.reuters.com/business/energy/mozambiques-first-lng-exports-europe-seen-by-early-november-2022-10-21/>

## TAKING STOCK OF SUPPLY: WHERE NEXT FOR FOSSIL FUELS AFTER COP28?

- **An unwillingness of governments** to accept that addressing climate change, and achieving the goals of the Paris Agreement, requires phasing out fossil fuels. Instead, nations are emphasising the role of gas as a ‘transition fuel’ or the use of ‘clean coal’, for instance, alongside novel CCS technologies. The final COP28 outcome text “recognizes that transitional fuels can play a role in facilitating the energy transition while ensuring energy security.”<sup>48</sup>
- **Enduring ideological beliefs that fossil fuels are essential** for, and inherent to, economic and social development. In comments that were quickly clarified, COP28 President Sultan Al Jaber, claimed that sustainable development and phasing out fossil fuels were not compatible, “unless you want to take the world back into caves.”<sup>49</sup>
- **Heavy reliance on fossil fuel revenues** to deliver public goods and services. Nations like Nigeria and Indonesia are highly dependent on the revenues derived from fossil fuel production and exports to fund other areas of policy, such as education, healthcare and housing. For example, in Nigeria revenue from oil and gas sources accounted for about 60% of total federally collected revenue between 2010 and 2021.<sup>50</sup>
- **Deliberate policy choices to lock nations into continued fossil fuel production and use.** Before COP28 started, an investigation by the Centre for Climate Reporting found that Saudi Arabia’s Oil Demand Sustainability Programme (ODSP), an organisation overseen by the Saudi government that includes Saudi Aramco and petrochemicals giant Sabic, were planning to stimulate the use of internal combustion engine vehicles, energy-intensive supersonic jets and floating power plants in Africa and elsewhere to lock-in demand for fossil fuels for decades to come.<sup>51</sup>
- **Persistent lack of adequate climate finance** to enable developing countries to pursue development pathways that are not based on fossil fuel extraction and consumption, as well as the continued role of bilateral, regional and multilateral development banks in still financing fossil fuel projects. G20 countries and Multilateral Development Banks (MDBs) provided at least \$55 billion per year in international public finance for fossil fuels between 2019 and 2021.<sup>52</sup> This is particularly acute when analysing the fiscal strain of growing debt burdens on developing countries and the increasing pressures of servicing debt.<sup>53</sup>
- **A lack of coherent global collaboration** on supply-side policy, although this may be shifting (see below). While the final COP28 text recognises and reaffirms the importance of international cooperation, it also reassures states that transition away from fossil fuels can be pursued according to countries’ “different national circumstances, pathways and approaches.”<sup>54</sup>



<sup>48</sup> UNFCCC, 2023, ‘Outcome of the first global stocktake’, [https://unfccc.int/sites/default/files/resource/cma2023\\_L17\\_adv.pdf](https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf)

<sup>49</sup> *The Guardian*, 2023, ‘Cop28 president says there is ‘no science’ behind demands for phase-out of fossil fuels’, <https://www.theguardian.com/environment/2023/dec/03/back-into-caves-cop28-president-dismisses-phase-out-of-fossil-fuels>

<sup>50</sup> ODI, 2023, ‘Five Opportunities for Nigeria to lead a clean and just energy transition at COP27 and beyond’, <https://odi.org/en/insights/five-opportunities-for-nigeria-to-lead-a-clean-and-just-energy-transition-at-cop27-and-beyond/>

<sup>51</sup> *The Guardian*, 2023, ‘Revealed: Saudi Arabia’s grand plan to ‘hook’ poor countries on oil’, <https://www.theguardian.com/environment/2023/nov/27/revealed-saudi-arabia-plan-poor-countries-oil>

<sup>52</sup> OCI, 2022, ‘At a Crossroads: Assessing G20 and MDB international energy finance ahead of stop funding fossils pledge deadline’, <https://priceofoil.org/2022/11/01/g20-at-a-crossroads/>

<sup>53</sup> Debt Justice et al., 2023, ‘The Debt-Fossil Fuel Trap’, [https://debtjustice.org.uk/wp-content/uploads/2023/08/Debt-Fossil-Fuel-Trap-Report\\_2023.pdf](https://debtjustice.org.uk/wp-content/uploads/2023/08/Debt-Fossil-Fuel-Trap-Report_2023.pdf)

<sup>54</sup> UNFCCC, 2023, ‘Outcome of the first global stocktake’, [https://unfccc.int/sites/default/files/resource/cma2023\\_L17\\_adv.pdf](https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf)

## 4. What can be done?

### Openings and opportunities for furthering supply-side policies

Despite the many barriers that stand in the way of introducing supply-side climate policies, there are also openings that could provide routes to tangible change. Many of these gained added momentum at COP28 and can be built upon throughout 2024.

#### 1. GROWING AND WIDENING CLIMATE CLUBS OF FIRST-MOVERS

COP28 saw a proliferation of announcements from a variety of climate clubs and first-mover groups that are aiming to scale up, socialise and embed supply-side climate policies into governments' climate policy arsenals.

##### 1.1 Beyond Oil and Gas Alliance (BOGA)

Launched in 2021 by the first-mover nations of Costa Rica and Denmark, BOGA is an international alliance of national and state governments and other organisations collaborating to facilitate the managed phase-out of oil and gas production.<sup>55</sup> The organisation's aims are fourfold: to strengthen global ambition to align oil and gas production with the goals of the Paris Agreement; amplify the supply-side issue on the global stage; capture and leverage momentum from phase-out first-movers; and create an international community of best practice.<sup>56</sup>

Its membership is comprised of core members, which includes the likes of France, Denmark, Ireland and Costa Rica amongst others; associate members, such as New Zealand and the State of California; and 'friend of BOGA, which includes Chile, Colombia and Italy, amongst others.<sup>57</sup> At COP28, three more nations joined as full members of BOGA's ranks: Spain, Kenya (which was previously a friend of BOGA) and Samoa. Alongside this,

BOGA also announced the operationalisation of the BOGA Fund, launched at COP27, which will award grants to both Kenya and Colombia to support the development of plans to phase-out fossil fuels.<sup>58</sup>

##### 1.2 Fossil Fuel Non-Proliferation Treaty (FFNPT)

The campaign for an international Fossil Fuel Non-Proliferation Treaty, styled on the Nuclear Non-Proliferation Treaty,<sup>59</sup> continues to gain momentum globally.<sup>60</sup> In just two years, global support for such a treaty has ballooned, with 8 states, the European Parliament, around 100 cities, 2,500+ CSOs and social movements, 3000 leading academics and scientists all demanding for its creation and implementation.

COP28 saw momentum accelerate. At the climate summit, around 100 cities came together to call for a Fossil Fuel Treaty, including Paris, Sydney, London, California and Rome, amongst many others.<sup>61</sup> Following this, the nation of Palau in Oceania, the Pacific Island nation of Samoa<sup>62</sup> and the Micronesian island of Nauru formally endorsed the treaty and joined the chorus of nations calling for such an agreement to be negotiated.<sup>63</sup> Colombia, a major producer and exporter of oil and coal in South America, also formally endorsed the idea of a treaty. In the speech announcing Colombia's decision to join the treaty, President Gustavo Petro said: "Today we face an immense confrontation between fossil capital and human life. And we must choose a side. Any human being knows that we must choose life. I have no doubt which position to take: between fossil capital and life, we choose the side of life."<sup>64</sup>

This prospective multilateral agreement could create an international framework for a fair, fast and funded phase-out of fossil fuels, keeping fossil fuel reserves in the ground, and sequencing the phase-out of existing infrastructures and reserves in line with the latest climate science. Such a treaty could also incorporate the notions of historical responsibility, where those wealthy nations that have benefited the most from fossil fuelled development are required to move first and fastest. It could introduce robust monitoring of commitments and enforcement mechanisms to ensure compliance.

<sup>55</sup> Beyond Oil and Gas Alliance, n.d., <https://beyondoilandgasalliance.org/>

<sup>56</sup> Ibid.

<sup>57</sup> Ibid.

<sup>58</sup> OCI, 2023, 'Oil Change International responds to new countries joining Beyond Oil and Gas Alliance & global south transition grant at COP28', <https://priceofoil.org/2023/12/05/oil-change-international-responds-to-new-countries-joining-beyond-oil-and-gas-alliance-global-south-transition-grant-at-cop28/>

<sup>59</sup> Simms & Newell, 2018, 'We need a fossil fuel non-proliferation treaty – and we need it now', *The Guardian*, <https://www.theguardian.com/commentisfree/2018/oct/23/fossil-fuel-non-proliferation-treaty-climate-breakdown>

<sup>60</sup> Newell & Simms, 'Towards a fossil fuel non-proliferation treaty', *Climate Policy*, <https://doi.org/10.1080/14693062.2019.1636759>

<sup>61</sup> Fossil Fuel Treaty, 2023, 'In historic milestone, 100 cities call for a Fossil Fuel Non-Proliferation Treaty at COP28', <https://fossilfueltreaty.org/100-cities-cop28>

<sup>62</sup> Fossil Fuel Treaty, 2023, 'At COP28, Samoa becomes the 11th nation state to formally join the call for a Fossil Fuel Non-Proliferation Treaty', <https://fossilfueltreaty.org/samoa>

<sup>63</sup> Fossil Fuel Treaty, 2023, 'Amid battles to phase out fossil fuels at COP28, Nauru shows leadership by becoming 12th nation-state to formally call for a Fossil Fuel Non-Proliferation Treaty', <https://fossilfueltreaty.org/nauru>

<sup>64</sup> Fossil Fuel Treaty, 2023, 'At COP 28, Colombia joins call for Fossil Fuel Treaty, strengthening international climate leadership', <https://fossilfueltreaty.org/colombia-press-release>

### 1.3 Powering Past Coal Alliance (PPCA)

The PPCA is a coalition of governments, both national and subnational, as well as businesses and civil society organisations, working to advance the transition away from unabated coal generation.<sup>65</sup> Before COP28 started, PPCA comprised 59 governments, 51 subnational governments and 71 global organisations. At COP28, a number of other nations joined the alliance, including the USA, Czechia, Cyprus, Dominican Republic, Iceland, Kosovo and Norway.<sup>66</sup>

Some of the new members are significant coal consumers, which highlights a degree of ambition. The USA, for instance, sits behind only India and China in terms of the size of its existing coal fleet.<sup>67</sup> Czechia uses coal to generate around 43% of its electricity<sup>68</sup> and is one of the largest coal consumers in the European Union. Kosovo currently generates around 93% of its electricity from coal.<sup>69</sup> Other new members of PPCA, such as Cyprus, Norway and Iceland are coal-free.

Although rapidly phasing-out coal will deliver deep emissions reductions, a narrow focus on coal omits several important elements of equity. Research shows that the coal phase-out trajectories under the IPCC 1.5°C scenarios fail to factor in the varied degrees of coal dependence across countries and the socio-political feasibility of rapid transition within nations with high coal dependence.<sup>70</sup> For instance, in China, India and South Africa – nations with high degrees of dependence on coal consumption – the rate of coal phase-out required under 1.5°C scenarios is twice as fast as any past coal transition, relative to energy system size.<sup>71</sup> An adequate inclusion of equity requires wealthy nations to move first and fastest in phasing out all fossil fuels, not just coal.<sup>72</sup>

### 1.4 Other clubs to watch

There were a number of other announcements made at COP28 that could impact collective efforts to address fossil fuel supply by curtailing key areas of fossil fuel demand. For instance, Germany and Chile formally launched a ‘Climate Club’ at the summit that will increase collaboration between nations to decarbonise heavy industry.<sup>73</sup> The focus of this new club will be the emissions intensive sectors of cement, steel and

chemicals, that together comprise a sizeable chunk of global emissions. The club has already seen its membership swell to 36 countries, including Kenya, Switzerland and the European Union.

Another prospective group could be the *Clean Power Alliance* that was outlined by the UK’s Labour Party leader, Keir Starmer, who could very well form the next government in Britain in 2024. Although first announced at the World Economic Forum in Davos earlier this year, Starmer outlined his plans further at COP28. Starmer intends to create a global “buyers’ club” of nations looking to bolster investment into clean technologies, secure supply of key minerals such as lithium, and share information and best practice around decarbonisation.<sup>74</sup>

## 2. FINANCE

Finance has long since been a focus of efforts to curtail fossil fuel production; either through divestment, which seeks to reduce the flow of finance into fossil fuel production, and also through mechanisms that endeavour to redirect the flow of finance into renewable energy and clean industries. The latter has been a particular focus at COP28.

### 2.1 Momentum behind ending public finance for fossil fuels

Back at COP26 in Glasgow, Scotland, in 2021 a group of 39 countries and institutions, such as multilateral development banks, signed the Clean Energy Transition Partnership (CETP) that committed them to end direct international public finance for fossil fuel projects by the end of 2022. Many countries, such as the UK, which spearheaded the initiative, have delivered on this commitment. Others, such as the USA, Italy and Germany, are yet to implement their commitments.

This form of finance is widespread and predominantly distributed through nations’ export credit agencies (ECA) through a variety of mechanisms under the premise of supporting the export of large-scale equipment and technologies, such as fossil fuel infrastructure. Between 2016 and 2021, \$422 billion in international public finance has flowed into fossil fuel projects, compared to \$173 billion into clean energy.<sup>75</sup> In multiple instances,

<sup>65</sup> PPCA, n.d., ‘Who We Are’, <https://poweringpastcoal.org/>

<sup>66</sup> PPCA, 2023, ‘The United States Heads a Group Of Countries Making New Commitments To Phasing Out Coal’, <https://poweringpastcoal.org/press-releases/the-united-states-heads-a-group-of-countries-making-new-commitments-to-phasing-out-coal/>

<sup>67</sup> Ibid.

<sup>68</sup> Our World In Data, n.d., ‘Czechia: Energy Country Profile’, <https://ourworldindata.org/energy/country/czechia>

<sup>69</sup> Our World In Data, n.d., ‘Kosovo: Energy Country Profile’, <https://ourworldindata.org/energy/country/kosovo>

<sup>70</sup> Muttitt et al., 2023, ‘Socio-political feasibility of coal power phase-out and its role in mitigation pathways’, *Nature Climate Change*, <https://doi.org/10.1038/s41558-022-01576-2>

<sup>71</sup> Ibid.

<sup>72</sup> Civil Society Equity Review, 2023, ‘The 2023 Fair Shares Deficit’, [https://static1.squarespace.com/static/620ef5326bbf2d7627553dbf/t/656da136971a71379a91987b/1701683516396/COP28\\_Civil\\_Society\\_Equity\\_Review\\_Fair\\_Shares\\_Report.pdf](https://static1.squarespace.com/static/620ef5326bbf2d7627553dbf/t/656da136971a71379a91987b/1701683516396/COP28_Civil_Society_Equity_Review_Fair_Shares_Report.pdf)

<sup>73</sup> Down to Earth, 2023, ‘COP28: Germany unveils climate club to tackle industrial emissions’, <https://www.downtoearth.org.in/news/world/cop28-germany-unveils-climate-club-to-tackle-industrial-emissions-93129>

<sup>74</sup> Evening Standard, 2023, ‘Keir Starmer details ‘clean power alliance’ at Cop28’, <https://www.standard.co.uk/news/politics/keir-starmer-king-ed-miliband-tories-rishi-sunak-b1124331.html>

<sup>75</sup> OCI, 2023, ‘Promise Breakers: Assessing the impact of compliance with the Glasgow Statement commitment to end international public finance for fossil fuels’, <https://priceofoil.org/content/uploads/2023/03/PROMISE-BREAKERS.pdf>





## 2.2 Reforming the financial architecture of the global economy

The restrictive and sometimes crippling impacts of sovereign debt on developing nations was an ever-present theme throughout COP28. Often, servicing debt can put such a strain on governments' fiscal burdens that they cannot pursue alternative development pathways and, instead, are dependent on extractive industries to meet the social needs of citizens. A group of developed nations, including France, and the UK, as well as multilateral development banks like the Inter-American Development Bank (IDB) and the European Investment Bank (EIB), announced the expansion of Climate-Resilient Debt Clauses (CRDCs).<sup>78</sup> This initiative will see debt-servicing paused in the event of severe climate impacts and has been incorporated into existing loans facilitated by the World Bank, although it is unclear as to how it will impact credit rating criteria. By no means adequate to relieve debt-distressed nations and provide governments the fiscal room to pursue alternative development pathways, it is an acknowledgement, nevertheless, that the current financial architecture and debt provisions are in need of reform in light of the realities of climate change.

private finance often 'crowds in' after the financial assurances and scale created by public finance via ECAs. Now, however, due to the CETP there is growing momentum behind shifting public finance away from fossil fuels and into clean alternatives. At COP28, Norway, Australia and hosts Dubai all joined the CEPT, taking the total membership to over 40 countries and institutions. If fulfilled, the commitments of these members will shift billions of investment away from fossil fuel production.

Australia's decision to join CETP is particularly noteworthy given its staunch resistance to the initiative after its inception. Between 2019 and 2021, just 19% of the annual financial support from Australia's ECA – Export Finance Australia – went into clean energy, with a strong preference towards fossil fuel projects.<sup>76</sup> The progress made at COP28 on public finance, alongside the progress made at the OECD earlier in the year, where the EU, UK and Canada tabled a motion to extend coal finance restrictions to oil and gas,<sup>77</sup> shows that public finance could be a fertile ground for scaling supply-side policies.

## 2.3 Private finance sending mixed signals

Finance Day at COP28 delivered a raft of announcements that will impact the deployment of private finance. A range of blended finance initiatives were announced, such as a new investment vehicle created by the UAE and BlackRock,<sup>79</sup> and calls for greater collaboration echoed round the COP pavilion. These announcements appear lacklustre given the pivotal role that banks continue to play in investing in fossil fuel infrastructures around the world. Financing from the world's 60 biggest banks has topped \$5.5 trillion in the seven years since the adoption of the Paris Agreement, with \$669 billion in fossil fuel financing in 2022 alone.<sup>80</sup> The same analysis found that 49 of these 60 banks have committed to net zero, but provided 81% of the finance to the top 100 expanding fossil fuel companies.<sup>81</sup> The volume and value of announcements made at COP28 from private financial actors pales in comparison to the reality of financial flows into fossil fuel production.

<sup>76</sup> OCI, 2022, 'At a Crossroads: Assessing G20 and MDB international energy finance ahead of stop funding fossils pledge deadline', <https://priceofoil.org/2022/11/01/g20-at-a-crossroads/>

<sup>77</sup> OCI, 2023, 'EU, UK, and Canada move to phase out fossil fuel finance at OECD', <https://priceofoil.org/2023/11/08/eu-uk-and-canada-move-to-phase-out-fossil-fuel-finance-at-oecd/>

<sup>78</sup> EBRD, 2023, 'EBRD to offer climate resilient debt clauses in sovereign, municipal loans', <https://www.ebrd.com/news/2023/ebrd-to-offer-climate-resilient-debt-clauses-in-sovereign-municipal-loans.html>

<sup>79</sup> ESG Clarity, 2023, 'COP28: BlackRock partners with UAE private investment climate vehicle', <https://esgclarity.com/cop28-blackrock-partners-with-uae-private-investment-climate-vehicle/>

<sup>80</sup> BankTrack, 2023, 'Banking on Climate Chaos: fossil fuel finance report 2023', [https://www.bankingonclimatechaos.org/wp-content/uploads/2023/08/BOCC\\_2023\\_vF.pdf](https://www.bankingonclimatechaos.org/wp-content/uploads/2023/08/BOCC_2023_vF.pdf)

<sup>81</sup> Ibid.

### 3. SCALING UP ALTERNATIVES AND CURTAILING DEMAND

It is widely accepted that to phase-out fossil fuel production at the speed required, policy efforts must ‘cut with both hands of the scissors’.<sup>82</sup> This is to say that policies should target cutting the supply of fossil fuels while simultaneously curtailing the demand for fossil fuels.<sup>83</sup> When combined, supply-side and demand-side policies could create complementarities and synergies that could accelerate emissions reductions<sup>84</sup> and “strengthen and signal commitments to greenhouse gas emissions mitigation, act as an insurance (in case one set of policies fails, the other might still produce effects), and work on different political economy dynamics (with respect to countries involved, the possibility to galvanize civil society initiatives, and prospects to disarticulate oil interests)”.<sup>85</sup>

Curtailing demand requires scaling up alternative sources of energy, unlocking enough climate finance to enable developing nations to leapfrog fossil fuel energy systems, and driving up energy efficiency – all of which were discussed at length during COP28.

#### 3.1 Scaling up renewable energy technologies and energy efficiency

The commitment to triple renewable energy capacity and double energy efficiency by 2030 was trailed in the lead up to COP28 as a major objective, backed by the COP28 leadership, the IEA, and the International Renewable Energy Agency (IRENA). During the summit, delegations were quick to join up to these commitments, with almost 120 nations pledging to meet these commitments in the first week. However, big fossil fuel consumers – including China, South Africa, Indonesia and Turkey – were reticent to join due, in part, to the wording around ending investment into unabated coal-fired power plants.

The final COP28 outcome text included explicit objectives of tripling global renewable capacity and doubling global efficiency, calling upon nations to pursue these goals within “their different national circumstances, pathways and approaches”.<sup>86</sup> Achieving these goals by 2030 could, according to some analysts, unlock a fossil fuel phase-out and accelerate efforts on the supply-side.<sup>87</sup> According to the IEA, tripling renewables and double efficiency would achieve 85% of the cuts in ‘unabated’ fossil fuels required by 2030 under the IEA Net Zero scenario.<sup>88</sup> In this forecast, emissions would fall by 35%, with tripled renewable capacity alone halving coal capacity by 2030.<sup>89</sup> If ambition and action were to increase beyond 2030, with a fivefold increase in renewable capacity and continued energy efficiency gains through to 2035, fossil fuel demand could fall by 56% and carbon emissions by 65%.<sup>90</sup>

When thinking through the creation and implementation of supply-side policies, it is important to analyse how these policies will interact with demand-side measures. In light of the significant cut in fossil fuel demand and emissions such measures could deliver, novel policies regulating supply must not undermine demand-side measures, but reinforce them.



<sup>82</sup> Green & Denniss, 2018, ‘Cutting with both arms of the scissors: the economic and political case for restrictive supply-side climate policies’, *Climatic Change*, <https://doi.org/10.1007/s10584-018-2162-x>

<sup>83</sup> Ibid.

<sup>84</sup> Lazarus & van Asselt, 2018, ‘Fossil fuel supply and climate policy: exploring the road less taken’, *Climatic Change*, <https://doi.org/10.1007/s10584-018-2266-3>; Pellegrini et al., 2021, ‘Institutional mechanisms to keep unburnable fossil fuel reserves in the soil’, *Energy Policy*, <https://doi.org/10.1016/j.enpol.2020.112029>

<sup>85</sup> Pellegrini and Arsel, 2022, ‘The Supply Side of Climate Policies: Keeping Unburnable Fossil Fuels in the Ground’, *Global Environmental Politics*, [https://doi.org/10.1162/glep\\_a\\_00691](https://doi.org/10.1162/glep_a_00691)

<sup>86</sup> UNFCCC, 2023, ‘Outcome of the first global stocktake’, [https://unfccc.int/sites/default/files/resource/cma2023\\_L17\\_adv.pdf](https://unfccc.int/sites/default/files/resource/cma2023_L17_adv.pdf)

<sup>87</sup> Rangelova and Jones, 2023, ‘Tripling renewables and doubling efficiency will accelerate a fossil phaseout’, *EMBER*, <https://ember-climate.org/insights/in-brief/tripling-renewables-and-doubling-efficiency-will-accelerate-a-fossil-phaseout/>

<sup>88</sup> IEA, 2023, ‘Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach’, <https://www.iea.org/reports/net-zero-roadmap-a-global-pathway-to-keep-the-15-0c-goal-in-reach>

<sup>89</sup> Ibid.

<sup>90</sup> Rangelova and Jones, 2023, ‘Tripling renewables and doubling efficiency will accelerate a fossil phaseout’, *EMBER*, <https://ember-climate.org/insights/in-brief/tripling-renewables-and-doubling-efficiency-will-accelerate-a-fossil-phaseout/>

## 4.2 Unlocking climate finance

Negotiations over the form, function and volume of climate finance are fierce and fraught, with many countering demands. Discussions over strengthening the UN's financial mechanisms, simplifying access to finance, operationalising the loss and damage fund, stimulating private investment and reforming the global financial architecture were ongoing through the summit. The final COP28 outcome failed to deliver explicit requirements on finance, especially relating to increased support from developed countries to developing ones. As Joab Okanda, of Christian Aid, notes “there is a gaping hole on climate finance to actually fund the transition from dirty to clean energy in developing countries. Without that, we risk the global shift being much slower.”<sup>91</sup>

The areas of finance particularly relevant for efforts to implement and scale up supply-side climate policies include reforming the global financial architecture, particularly in relation to debt-distressed developing nations. Many developing nations now find themselves in ‘debt traps’ due to a combination of spiralling borrowing during the global pandemic and hikes in interest rates. As a result of these macroeconomic conditions, some countries are spending larger chunks of their GDP on servicing debt than they are in pursuing other sustainable development goals, such as education or health care.

These dynamics reduce the available investment and energy pathways that developing countries can take. In many cases, fiscal restrictions such as debt servicing requirements make it more difficult for large producers that heavily rely upon fossil fuel revenues to phase-out production. For instance, Africa's largest oil producer, Nigeria, is due to spend roughly six times more on servicing its debt in 2024 than it will investing in schools and hospitals.<sup>92</sup> The Nigerian government is highly dependent on oil and gas revenues for income, with it comprising 10% of total GDP.<sup>93</sup> With persistent debt pressures and limited fiscal space for strategic investment, Nigeria's dependence on fossil fuel production is unlikely to change.



Successfully implementing supply-side policies, domestically and internationally, will require grappling with the debt stress that often exacerbates dependencies on fossil fuel production. This could take many forms, from incorporating debt-for-climate swaps to protect nature and prevent new sites of extraction opening up,<sup>94</sup> to reforming the types and terms of finance provided by multilateral financial institutions like the International Monetary Fund (IMF).

## 4. OTHER DEVELOPMENTS THAT COULD PROVIDE OPPORTUNITIES

Another development that may create opportunities to further supply-side climate policies is the prospect of peak demand for fossil fuels. According to the IEA, demand for all fossil fuels – coal, oil and gas – could all peak by 2030.<sup>95</sup> How quickly demand falls after 2030 is still an open question and likely to be the focus of fierce resistance from those who stand to lose out financially and politically from reducing global dependence on fossil fuels. Falling demand in the near term could cause widespread disruption within the fossil fuel industry, with decreasing commodity prices denting revenues and the value of existing and new production.<sup>96</sup> In this scenario, where the risk of assets becoming stranded increases dramatically, fossil fuel companies could face challenges from investors, shareholders and government.<sup>97</sup> To manage and navigate this potential economic disruption, supply-side climate policies may become an attractive option.

<sup>91</sup> *Telegraph*, 2023, ‘Cop28 agrees historic deal to shift away from fossil fuels’, <https://www.telegraph.co.uk/news/2023/12/13/cop28-summit-landmark-deal-transition-away-fossil-fuels/>

<sup>92</sup> *Bloomberg*, 2023, ‘Nigeria Debt Costs Pressure Social Spending in 2024 Budget’, <https://www.bloomberg.com/news/articles/2023-11-29/nigeria-debt-costs-pressures-social-spending-in-2024-budget>

<sup>93</sup> SEI, Climate Analytics, E3G, IISD, UNEP 2023, “‘Phasing down or phasing up?’ Top fossil fuel producers plan even more extraction despite climate promises”, *UN Production Gap*, [https://productiongap.org/wp-content/uploads/2023/11/PGR2023\\_web\\_rev.pdf](https://productiongap.org/wp-content/uploads/2023/11/PGR2023_web_rev.pdf)

<sup>94</sup> Rumpel and Gupta, 2021, ‘Equitable, effective, and feasible approaches for a prospective fossil fuel transition’, *WIREs Climate Change Vol. 13 No. 2*, <https://doi.org/10.1002/wcc.756>

<sup>95</sup> IEA, 2023, ‘World Energy Outlook’, <https://www.iea.org/reports/world-energy-outlook-2023>

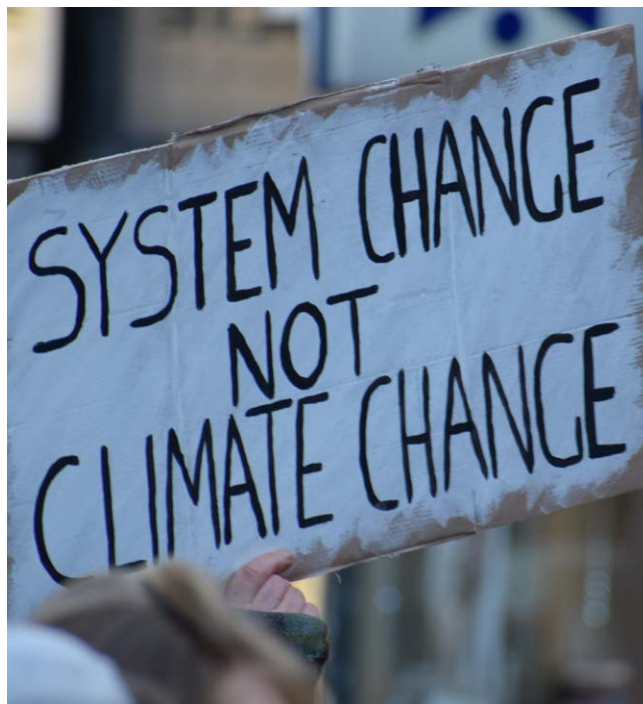
<sup>96</sup> Carbon Tracker Initiative, 2023, ‘Navigating Peak Demand’, <https://carbontracker.org/reports/navigating-peak-demand/>

<sup>97</sup> Colgan et al., 2021, ‘Asset Revaluation and the Existential Politics of Climate Change’, *International Organization*, <https://doi.org/10.1017/S0020818320000296>

## 5. Where next?

Coming into the summit, there was a great deal of hope that COP28 would represent a turning point for supply-side policies. There is no question that the need to phase down and out fossil fuels cannot be ignored any longer, even if the timing and means of doing so remain contested. At COP28, there were a number of developments gaining momentum that could, in theory, provide ample opportunities to multilateralise supply-side policies.<sup>98</sup> From bringing together first-movers and scaling up renewable capacity, to expanding the number of governments and multilateral institutions cutting public finance to fossil fuels and reforming debt obligations, the seeds of a fossil fuel phase-out are already loosely dispersed at both the national and international levels of climate governance.

2024 must be a year of capacity building and constructive partnership to tie together the various policy levers that can impact the supply-side into a coherent and ambitious strategy. The necessity of this cannot be overstated: it is the only remaining course to keep the goals of the Paris Agreement alive.



<sup>98</sup> van Asselt & Newell, 2022, 'Pathways to an international agreement to leave fossil fuels in the ground', *Global Environmental Politics*, [https://doi.org/10.1162/glep\\_a\\_00674](https://doi.org/10.1162/glep_a_00674)

## About SUS-POL

Drawing on the fields of global political economy, international relations, sociology, geography, and transition studies, the SUS-POL project based at the University of Sussex seeks to identify the political, economic, cultural, and social conditions and processes that give rise to, and help to spread, supply-side policies that seek to limit fossil fuel production and ensure that reserves remain in the ground.

By investigating the barriers and drivers to supply-side climate policies, and what motivates the actors that have implemented them, the project will generate conceptual and practical insights into how such policies can be adopted more widely across various contexts and levels of governance, and the conditions that give rise to them.

You can follow updates from the SUS-POL project on [Twitter](#) and [LinkedIn](#).

To explore the SUS-POL Tracker, please visit <https://fossilfueltracker.org/app/ffnpt>

To find out more, please visit <https://www.sussex.ac.uk/research/projects/sus-pol/>

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