

Task Force 06

STRENGTHENING MULTILATERALISM AND GLOBAL GOVERNANCE

What Does Transitioning Away from Fossil Fuels in a Just, Orderly and Equitable Manner Mean for G20 Countries?

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Abstract

The G20 summits to date have not reached a consensus on commitments to phase out fossil fuels. The historic international agreement at the UNFCCC COP28, in which countries committed to “transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner” creates an urgent mandate for the G20 to build on. The G20 should lead a global conversation on how to implement this phase-out of fossil fuels, including defining how the transition will be equitable.

Considering the differentiated financial capabilities and historical responsibility for climate change of its members, the G20 is in the position to lead a global conversation on how to implement the COP28 outcome in an ambitious and equitable way. Based on previous research by the International Institute for Sustainable Development (IISD) and Oil Change International (OCI), this policy briefing spells out key elements of an ambitious G20 summit outcome regarding fossil fuel phase-out.

These elements include: the expansion of the New Delhi 2023 phasedown commitment on coal to include all fossil fuels; a commitment to stop the expansion of existing and new fossil fuels projects domestically and stopping support for new projects abroad; aligning the commitment to the latest science on 1.5°C compatible scenarios by including clear peaking and phase-out timelines for fossil fuel production; and committing to differentiated phase-out timelines, trajectories, and international support, on the basis of national circumstances and equity.

We also suggest critical steps for G20 countries to operationalize these collective, universal commitments through their national policy processes. These include, incorporating the increased ambition elements on fossil fuels phase-out in their new Nationally Determined Contributions (NDCs), which all countries are expected to submit in 2025, Long-Term, Low-Emission Development Strategies (LT-LEDS) update process

to reflect 1.5°C compatibility, and reviewing their domestic and international public finance to eliminate all types of support of new fossil fuel projects abroad. Leading by example, G20 countries can motivate non-G20 fossil-fuel-producing countries to take similar steps and send clear market signals around the inevitable transition away from fossil fuels.



Diagnosis of the issue

Domestic plans and targets in G20 countries

G20 countries are collectively responsible for most coal (93%), oil (62%) and gas (64%) production globally, and account for the majority of fossil fuel consumption (76%) and historical fossil fuel emissions since 1990 (71%). However, most of them are still heavily supporting the fossil fuel industry with subsidies and other measures and plan to continue this support in coming years. Producers' subsidies collectively granted by G20 countries reached an historic high of 69 billion USD in 2022 (out of USD 850 billion of total fossil fuel subsidies in the G20), up 88% from the previous year ([Fossil Fuel Subsidies Tracker](#)).

In 2023, there was an attempt by India as host of the G20 summit to broaden the focus from phasing down coal – its main energy source – to all fossil fuels (Varadhan et al. 2023). However, G20 countries failed until now to reach agreement on this issue. Instead, they merely reiterated a commitment to “efforts towards phasedown of unabated coal power, in line with national circumstances” (G20 2023).

While reducing both consumption and production of fossil fuels is fundamental, this briefing focuses on fossil fuel production, which is a significant gap in current national climate mitigation plans and targets.

TABLE 1. G20 fossil fuel production and consumption

	Share of global production (2021)			Share of historical emissions (1990-2020)	Share of global fossil fuels consumption (2021)
	Coal	Oil	Gas		
Argentina	0.0%	0.8%	1.2%	1.0%	0.6%
Australia	6.9%	0.4%	3.6%	1.6%	1.0%
Brazil	0.1%	3.7%	0.6%	4.4%	1.4%
Canada	0.6%	5.1%	4.6%	2.1%	1.8%
China	52.7%	4.7%	4.9%	18.5%	26.6%
France	0.0%	0.0%	0.0%	1.1%	1.0%
Germany	0.6%	0.1%	0.1%	2.3%	2.0%
India	7.6%	0.8%	0.8%	5.4%	6.3%
Indonesia	7.6%	0.8%	1.5%	3.5%	1.4%
Italy	0.0%	0.1%	0.1%	1.1%	1.1%
Japan	0.0%	0.0%	0.0%	3.0%	3.1%
Mexico	0.1%	2.3%	0.8%	1.5%	1.4%
Rep. of Korea	0.0%	0.0%	0.0%	1.3%	2.2%
Russia	6.4%	12.6%	18.9%	4.5%	5.6%
Saudi Arabia	0.0%	12.4%	2.4%	1.2%	2.2%
South Africa	3.3%	0.0%	0.0%	1.2%	1.0%
Turkey	0.3%	0.1%	0.0%	0.8%	1.2%
United Kingdom	0.0%	1.0%	0.8%	1.6%	1.1%
United States	7.1%	17.2%	23.2%	15.1%	15.5%
G20 (Individual Gov.)	93.3%	62.1%	63.5%	71.0%	76.3%

Source: Emissions figures are taken from [Climate Watch Data](#) and Fossil fuel productions figures are taken from the Production Gap Report 2023 and [IEA database](#)

While IEA analysis sees global demand peaking for all fossil fuels by 2030 (International Energy Agency 2023), G20 fossil fuel producers are still planning to increase production over the coming decade or even further (SEI et al. 2023), including those that have higher capacity to transition and large historical responsibility for global GHG emissions, like the United States, Canada and Australia (OCI 2023) (SEI et al. 2023). Globally, governments expect to produce 460% more coal, 29% more oil, and 82% more gas by 2030 than is consistent with a 1.5C global warming limit (SEI et al., 2023).

With production projected to continue increasing, the gap widens to 2400%, 260%, and 210% respectively by 2050, as illustrated in Figure 1 (SEI et al., 2023).

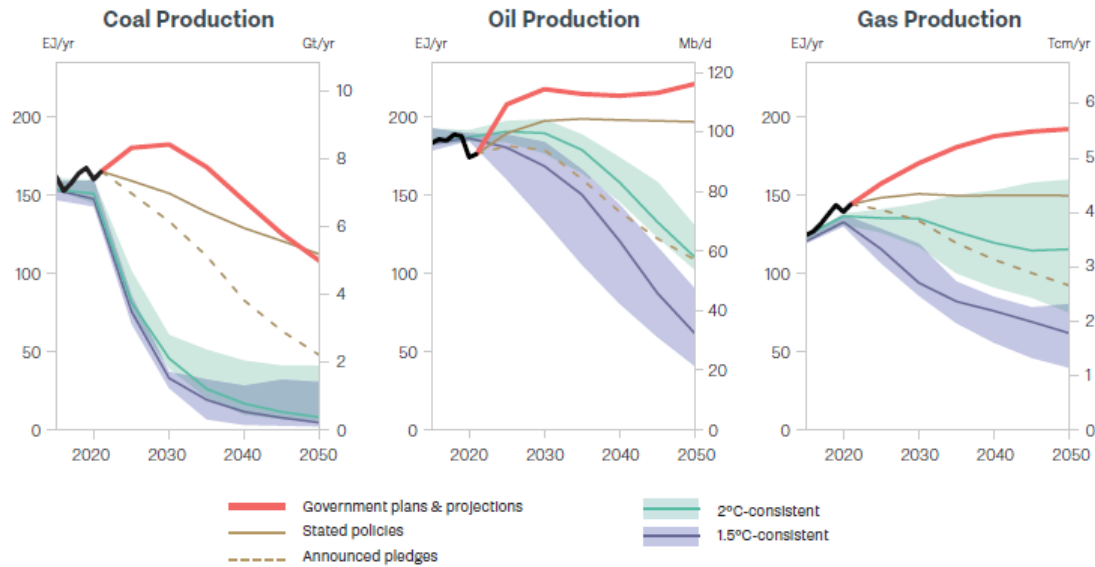


FIGURE 1. Government plans and projections for global fossil fuel production until 2050, compared to consumption pathways and 1.5°C aligned pathways.

Source: Production Gap Report 2023

As shown in figure 2, the committed CO₂ emissions of existing fossil fuel production projects would exhaust the entire carbon budget of a 2°C compatible scenario, and far exceed a 1.5°C scenario. (Muttitt and Kartha 2020a; OCI 2023). By extension, any new coal mine or oil and gas field will only increase the mitigation challenge, reduce the feasibility of reaching the Paris Agreement goals, and divert important investment resources in the energy sector from investments required for facilitating the transition to a fossil-free energy system.

This is confirmed by the International Energy Agency's Net Zero pathways, which concludes that no new upstream oil and gas projects, coal mines or coal mine extensions are needed in a 1.5°C scenario (IEA 2023), and by IISD analysis of all major 1.5°C scenarios (Bois von Kursk et al, 2022). Current and planned levels of fossil fuel production are therefore incompatible with the G20 and Paris Agreement objective of limiting warming to 1.5°C. In addition, some existing fossil fuel projects will need to be closed early, before the end of their economic life (Bois von Kursk et al. 2022), which stands in stark contrast to current production plans, which expect expansions until at least 2030.

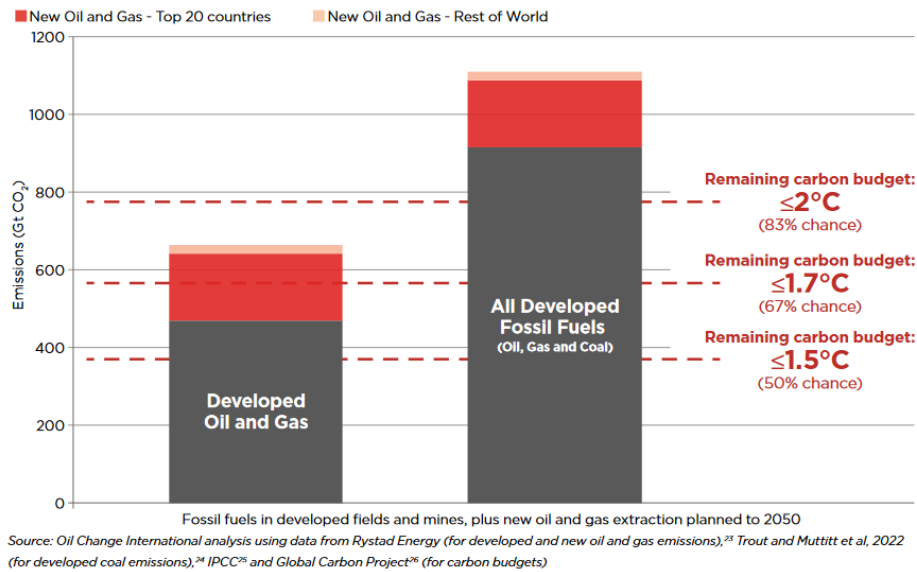


FIGURE 2. CO₂ emissions committed from developed fossil fuel extraction, plus projected emissions from planned new oil and gas extraction from 2023 to 2050, compared to remaining global carbon budgets

Source: Oil Change International, 2023

This highlights the urgent need for fossil fuel producers, many of which are G20 countries, to reconsider their fossil fuel production expansion plans, and start planning for a just and orderly transition away from fossil fuels.

International public finance

Between 2020 and 2022, the G20 and multilateral development banks (MDBs), of which G20 countries are collectively major shareholders, provided at least USD 47 billion annually in international public finance for fossil fuels, while clean energy only received \$34 billion annually (OCI 2024). Continued massive support by G20 countries to fossil fuel projects while public finance for renewable energy projects remains scarce is incompatible with the COP28 decision to transition away from fossil fuels and triple

renewable energy, as well as the G20's own commitment to pursue efforts to limit warming to 1.5°C.

Export Credit Agencies were the worst international public finance actors, accounting for 65% of all known support to fossil fuel projects between 2020 and 2022, which highlights the need for the G20 to implement whole-of-government policies to immediately end new public direct and indirect finance for oil, gas, and coal projects. These policies must not include loopholes for technologies including carbon capture and storage (CCS), fossil-based hydrogen, ammonia co-firing, fossil gas, and other technological solutions that delay fossil fuel assets phaseout.

One way in which G20 countries can make concrete progress on their promises to support the transition from fossils to renewable energy is to join international coalitions with concrete targets in this regard. Here, the Clean Energy Transition Partnership (CETP) is an ideal platform. Until May 2024, Australia, Canada, France, Germany, Italy, the UK, and the USA are the only G20 members that have joined the initiative (CETP 2024). CETP signatories commit to shift international public finance away from fossil fuels and into clean energy. As shown in Figure 3, most members (except for Canada) have shifted considerable finance away from fossil fuels, although increases in clean energy finance are still not proportional (Jones and Mun 2023). If other G20 members were to join the CETP, several billions could be shifted yearly from fossil fuels into clean energy.

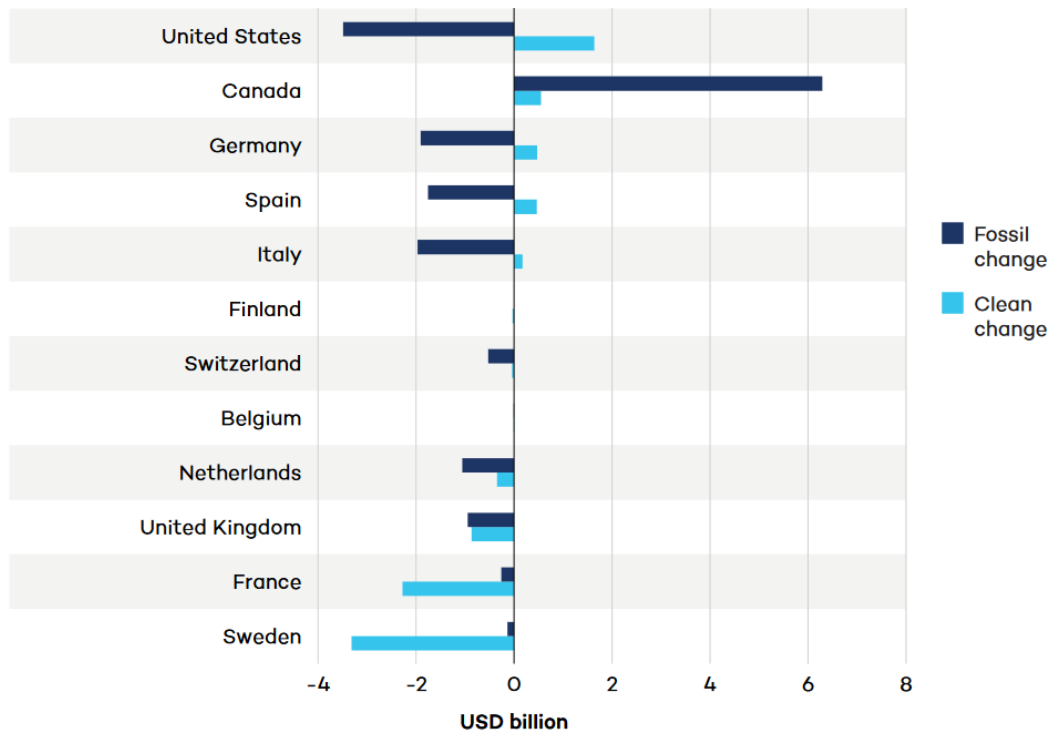


FIGURE 3. Changes in selected CETP signatories’ international public finance for clean energy and for fossil fuels, 2022 relative to 2019–2021 annual average

Source: Jones and Mun, 2023



Recommendations

Increasing ambition

If all G20 members implement zero emissions commitments by 2050 and align their NDCs with the 1.5°C trajectory, global warming could be limited to 1.7°C by the end of the century even if non-G20 countries do not make additional efforts (Climate Analytics 2021). If non-G20 countries followed suit, warming could be limited to 1.5°C. This highlights the need for G20 members to lead by example and urgently strengthen their NDCs and Long-Term, Low-Emission Development Strategies (LT-LEDS), especially countries with highest responsibility and capability, which should reach net zero earlier. Implementing the COP28 commitment to transition away from fossil fuels, triple renewable energy capacity, and double the rate of energy efficiency improvements, as well as aligning their emissions trajectories with 1.5°C will be key for the update of NDCs and LT-LEDS, and G20 countries should be leading on this, on the basis of equity.

As shown in the Table 2, some of the G20 second NDC targets are only marginally stronger than their previous NDCs, while others even have weaker targets. Importantly, most G20 countries have no specific mention of fossil fuel production in their NDCs and LT-LEDS (Jones and Yanguas Parra, 2024). Where fossil fuel production is mentioned, it is most often in the context of low ambition targets or explicit intentions to maintain important levels of fossil fuel production in the coming decades.

TABLE 2. Summary of G20 climate commitments

Country	Share of fossil fuels production 2021	New or updated NDC submission status	Change in ambition level of updated NDC	Net zero target	Supply side commitment
Argentina	0.61%	2020-21 update	increased	2050	None. Mention of continued production of gas as transition fuel
Australia	3.62%	2022-23 update	increased	2050	None. Mention that coal and gas export industries will continue through to 2050 and beyond
Brazil	1.52%	2022-23 update	not increased	2050	None
Canada	4.04%	2020-21 update	increased	2050	Reduce methane emissions from the oil and gas sector.
China	22.38%	2020-21 update	increased	2060	Curb methane emissions from coal, oil and gas mining.
France	0.00%	2022-23 update (EU)	not increased (compared to 2020 update)	2050	NDC:EU fossil fuel production. National target: Phase-out of all oil and gas production within the country and its overseas territories by 2040
Germany	0.30%	2022-23 update (EU)	not increased (compared to 2020 update)	2045	NDC:EU fossil fuel production. National target: Phase-out of coal production by 2038
India	3.56%	2022-23 update	not increased (but proposed an stronger target)	2070	None
Indonesia	3.24%	2022-23 update	not increased	2060 (in discussion)	None. Mention of enhanced oil production and coal production remaining high with slow decline
Italy	0.02%	2022-23 update (EU)	not increased (compared to 2020 update)	2050	NDC:EU fossil fuel production.
Japan	0.01%	2020-21 update	increased	2050	None
Mexico	1.14%	2022-23 update	not increased	2050 (in discussion)	Reduce emissions from the oil and gas sector.
Rep. of Korea	0.01%	2020-21 update	increased	2050	None
Russia	11.75%	2020-21 update	not increased	2060	None
Saudi Arabia	5.00%	2020-21 update	increased	2060	Reduce methane emissions from the oil and gas sector and economic diversification measures
South Africa	1.04%	2020-21 update	increased	2050 (pledge)	None
Turkey	0.14%	2022-23 update	not increased	2053	None
United Kingdom	0.58%	2022-23 update	not increased	2050	None. Mention of oil and gas remaining playing an important role
United States	14.99%	2020-21 update	increased	2050	Reduce emissions from the coal, oil and gas sector.

Source: [Climate Target Update Tracker](#) ECIU [net zero tracker](#) and UNFCCC' [NDCs database](#)



Collectively and individually, the G20 countries have huge potential for increasing ambition on phasing out fossil fuel production. This section describes key elements that would be required from G20 countries to reflect increased ambition.

Immediately ending the expansion of fossil fuel production

G20 governments are still supporting new fossil fuel projects domestically and abroad, which endangers the 1.5°C limit. A first and urgent step would be a commitment to stop the expansion of existing and new fossil fuels projects domestically and stop support for new projects abroad, which should be the aim of the G20 summit in terms of increased collective ambition. This commitment should then be reflected in countries' national policies and NDCs.

Additionally, the G20 could show leadership by extending the New Delhi 2023 “phasedown” commitment on coal to all fossil fuels and along the entire value chain. Brazil, as an oil and gas producer from the Global South, could lead on an effort to secure support for language covering all fossil fuels. Such a commitment would hinge on rich, economically diversified G20 members recognizing their responsibility to act fastest.

Aligning with 1.5°C science

Ending fossil fuel expansion alone is not sufficient for G20 countries to align their domestic policies with the 1.5°C limit. Doing so would require aligning their 2030 and 2035 emissions targets and fossil fuel production plans as well as setting phase out dates that reflect rapidly shrinking carbon budgets. Targets and commitments should cover both the phase-out of production and demand to send clear policy signals, minimize stranded assets, and avoid the lock-in of new long-lived fossil fuel infrastructure.



Reflecting common but differentiated responsibilities

While under a 1.5°C world, all countries will need to phase-out use and production of fossil fuels, considering different economic capabilities and historical responsibility it is clear that some countries will have to move faster than others with their transition. The same logic applies for the G20 countries, which has a very heterogeneous set of members, ranging from the richest countries of the World (e.g. USA), to some of the poorest countries of the world, represented though the African Union.

G20 countries which are wealthy and economically diversified, and have a relatively low level of dependence on fossil fuel revenues have a higher capacity to manage a fast transition away from fossil fuels. Indeed, they have built up their economies by emitting large shares of emissions to the atmosphere. The ultimate decision on how to interpret differentiated circumstances among countries to define fossil phaseout ambition is a political one, but countries currently lack a dedicated forum or mechanism to discuss and negotiate what an equitable phaseout could look like. Research shows that at least five principles for an equitable fossil fuels phaseout are required (Muttitt and Kartha 2020b):

- Phase-out global production at a pace consistent with 1.5°C warming;
- Enable a just transition for workers and communities;
- Stop production where it violates human rights;
- Phase-out fastest in the countries where dependence on production is lowest
- Share transition costs fairly, according to ability to bear those costs.

While the application of these principles quantitatively is subject of debate, different independent studies converge in their finding that to limit warming to 1.5°C, the wealthiest, least-dependent countries – including United States, Canada, and the UK -

must end production by the early 2030s, and the most dependent by 2050 (Calverley and Anderson 2022; Civil Society Equity Review 2023). In addition, significant financial and non-financial support will be required to enable the transition in the poorest countries.

The Brazilian G20 Presidency has an opportunity to make use of the process and its forthcoming presidency of COP30 to initiate a global dialogue on the implementation of an equitable and orderly transition away from fossil fuels. Such a dialogue could be a key deliverable of the “Mission 1.5” roadmap and could explore issues around phaseout dates for fossil fuel production and consumption, corresponding support requirements, potential economic consequences for fossil fuel dependent countries as well as international reforms needed to enable the transition to clean energy and away from fossil fuel production. As a Global South oil and gas producer, Brazil is well positioned to anchor this conversation around meeting development needs in a shrinking carbon budget.



Scenario of outcomes

Historically, the G20 set influential goals that were later taken up in the UNFCCC process like fossil fuel subsidy phase-out (2009) and tripling renewable energy capacity (2023). The G20 climate discussions in Brazil can further spur actions aligned with COP28's Global Stocktake, crucial for COP29 priorities and ambition results.

Considering their differentiated financial capabilities and historical responsibility for climate change, G20 countries can lead a global conversation on how to implement the COP28 outcome in an ambitious and equitable way. Brazil, as a Global South oil and gas producer, is in a unique position to lead on an effort to increase G20 countries' commitments in terms of fossil fuel phaseout and the differentiated timelines and support required to make it equitable.

Moreover, as we have shown in this briefing, G20 countries collectively and individually have huge potential for increasing ambition of their commitments in the next NDC update round in 2025. Leading by example, G20 countries can motivate non-G20 fossil-fuel-producing countries to take similar steps and increase momentum around transitioning away from fossil fuels production.

Key elements for the updated G20 targets that reflect the GST commitment to transition away from all fossil fuels, and critical steps to operationalize the collective commitments in national processes include:

- Including a new collective commitment to stop the expansion of existing and new fossil fuels projects domestically and mirror this commitment in national targets.
- Expanding the current collective G20 “phasedown” commitment on coal to all fossil fuels and along the entire value chain.



- Committing to align current targets and plans for fossil fuel production and use with 1.5°C global pathways, recognizing that an equitable global transition requires wealthy, diversified economies and large historical emitters to move fastest. For fossil fuel producers, this means to explicitly set reduction targets for coal, oil and gas production, which could be included in their new generation NDCs and LT-LEDS.
- Commitment to start a dialogue on the implementation of an equitable and orderly transition away from fossil fuels, which reflects equity principles and differentiate national circumstances.
- Reviewing their international public finance to eliminate all types of support of new fossil fuel projects abroad. Joining the Clean Energy Transition Partnership (CETP), for those G20 that have not joined it yet, would align with this goal and add political momentum for climate finance in the run up to the COP29.

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