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PLANET WRECKERS:

HOW COUNTRIES' OIL AND GAS EXTRACTION PLANS RISK LOCKING IN CLIMATE CHAOS

This report was written by Romain Ioualalen and Kelly Trout, based on research conducted by Kelly Trout. All are with Oil Change International.

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For more information, contact: Romain Ioualalen at Oil Change International, romain@priceofoil.org.

Design: paul@hellopaul.com
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Copyedit: Chelsea Mackin - chelsea.mackin@gmail.com

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Oil Change International is a research, communications, and advocacy organization focused on exposing the true costs of fossil fuels and facilitating the ongoing transition towards clean energy.

Oil Change International
714 G Street SE
Washington, DC 20003 USA
www.priceofoil.org

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"All of this action must be global. It must be immediate.
And it must start with the polluted heart of the climate crisis: the fossil fuel industry. *[...]*

"Fossil fuel industry transition plans must be transformation plans [...] away from a product incompatible with human survival. Otherwise, they are just proposals to become more efficient ***planet-wreckers."***

– United Nations Secretary-General António Guterres, June 15, 2023[1]

EXECUTIVE SUMMARY

Global heating, driven by the production and burning of fossil fuels, is already causing extreme and widespread damage to humans and ecosystems.[2] People in the Global South, and Indigenous Peoples, People of Color, and vulnerable communities that have caused the least pollution are being hit hardest and fastest by its impacts. The world has the solutions and resources to rapidly phase out fossil fuels, invest in a just transition to sustainable energy systems, and stave off runaway climate devastation.

Yet, for the most part, governments have yet to heed the science and the voices of people on the frontlines of the climate crisis and take the first basic step: put an end to new fossil fuel extraction and infrastructure. The science is clear that new oil and gas fields are incompatible with limiting global warming to 1.5-degrees Celsius (°C),[3] yet countries are continuing to approve new oil and gas extraction that endangers the global climate objectives they signed.

In this context, United Nations (UN) Secretary-General António Guterres will host a Climate Ambition Summit on September 20th in New York City. As part of his proposed Acceleration Agenda, he asked governments, particularly the world's wealthiest and biggest polluters, to show up with commitments to end approval and funding of all new oil and gas extraction projects, and phase out existing production in line with zeroing out global carbon pollution by 2050.

This report examines the climate implications of Secretary General Guterres' call. Its main findings are:

- **Only 20 countries could be responsible for nearly 90 percent of the carbon-dioxide (CO2) pollution** from new oil and gas fields and fracking wells planned between 2023 and 2050.[a]

- **Among these 20 countries, five global north governments stand out as the biggest climate hypocrites and most egregious Planet Wreckers: the United States, Canada, Australia, Norway, and the United Kingdom.** Despite having the greatest economic means to rapidly phase out production, and immense historical responsibility for causing the climate crisis, these five countries account for a majority (51 percent) of planned expansion from new oil and gas fields through 2050. New drilling in countries with high incomes, diversified economies and outsized historical responsibility for causing the climate crisis, while claiming to be climate leaders, is inexcusable. These countries must not only stop expansion immediately but also move first and fastest to phase out their production and pay their fair share to fund a just global energy transition.

- **The United States is Planet Wrecker In Chief, accounting for more than one-third of planned global oil and gas expansion through 2050, followed by Canada and Russia.** The United Arab Emirates (UAE) is also set to be one of the largest expanders of oil and gas production despite pledging to use its COP presidency to "keep 1.5°C alive."

- **If all 20 governments said "no" to their planned new oil and gas production, as the UN Secretary General is urging them to, 173 billion tonnes (Gt) of carbon pollution would be kept in the ground.** That is equivalent to the lifetime pollution of nearly **1,100 new coal plants**, or more than **30 years** of annual U.S. carbon emissions.

- **The scale of oil and gas expansion planned in these 20 countries would make it impossible to hold temperature rise to 1.5°C.** Even extracting just the fossil fuels from existing sites globally would result in 140 percent more carbon pollution than the allowed budget for 1.5°C. If these countries proceed with their new extraction, committed carbon pollution will be 190 percent over the 1.5°C budget, risking locking in more than a dangerous 2°C of warming.

- **Stopping new oil and gas would put the world closer to a 1.5°C aligned emissions trajectory but would not be enough.** Without any new oil and gas fields or licenses anywhere, global oil and gas production would decline by two percent per year to 2030 and by five percent per year from 2030 to 2050. However, limiting heating

Culzean gas platform in the North Sea.

© Marten van Dijl / Greenpeace

a New oil and gas extraction refers to production from fields and fracking wells that are not yet producing or under construction as of 2023. This extraction depends on new exploration licenses and/or permits from governments, or final investment decisions by companies.

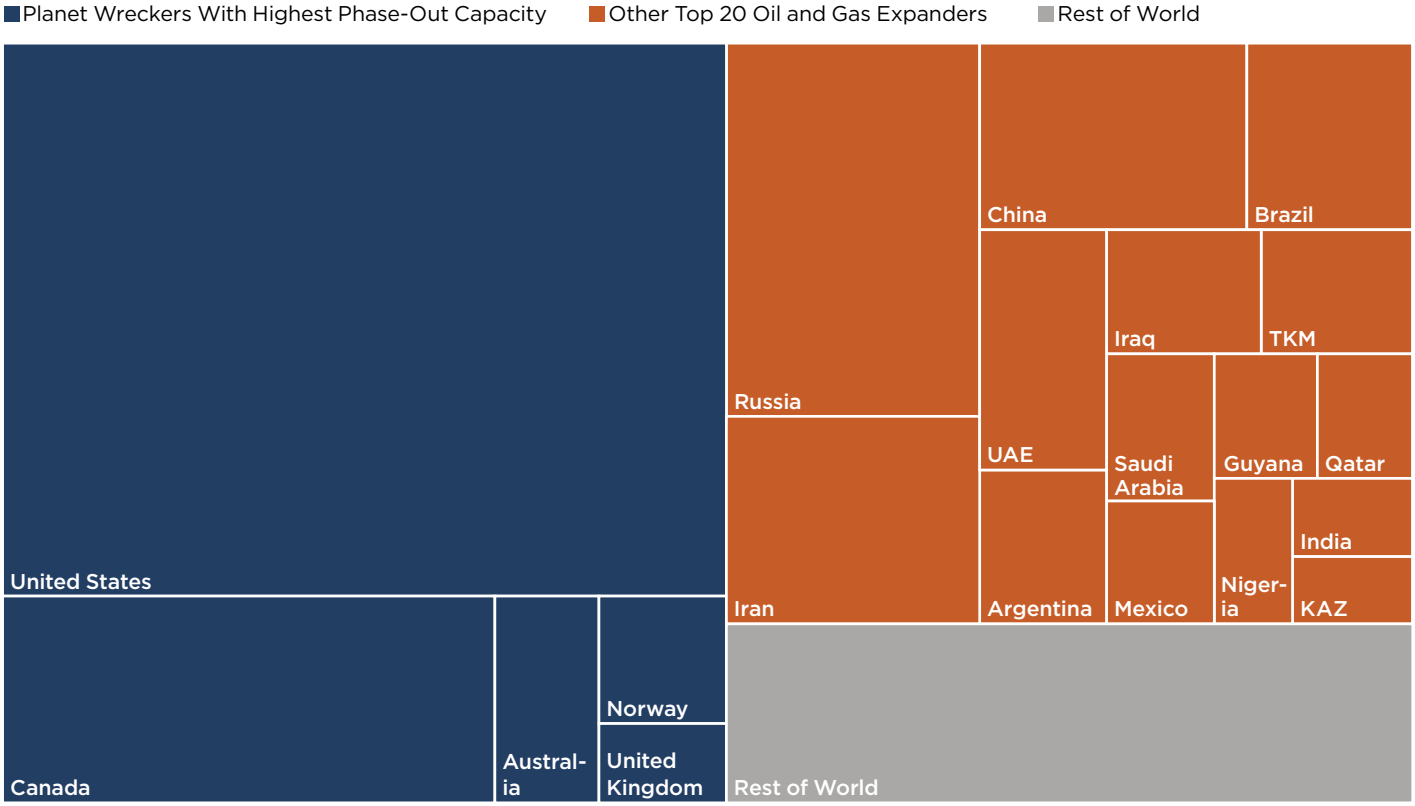
to 1.5°C requires governments to go further by closing down already producing fields.

- Policies to end new oil and gas licensing and stop construction of new fields are essential to a fast and fair phase-out of oil and gas production:
  - Ending new oil and gas licensing, as core members of the Beyond Oil and Gas Alliance (BOGA) members have committed to do, is a common-sense first step. **However, only eight percent of the new extraction planned in the top 20 countries from 2023 to 2050 depends on new licenses; the rest is already licensed or leased to companies.**
  - Thus, beyond ending new licensing, governments must stop issuing permits for new oil and gas extraction and related infrastructure, revoke and/or renegotiate existing licenses, and take other steps to end expansion, including shifting public money out of fossil fuels and into just, regenerative energy solutions.
- False techno-fixes like carbon capture and storage (CCS) are not an alternative to a rapid fossil fuel phase-out if the world is to preserve a livable climate. Governments should be proactively managing a just transition away from oil and gas production at the pace needed to hold warming below 1.5°C without gambling on CCS and other technologies that prolong fossil fuels use.

When you are in a hole, the first step is to stop digging. No government can claim to be working towards the Paris goals of holding global temperature rise to 1.5°C or well below 2°C while approving new oil and gas extraction. Too many fossil fuel projects are already developed, and the consequences are devastating communities. Governments must commit to stop making the problem worse – ending the drilling of new oil and gas that is incompatible with a livable climate.

But this alone is not enough. The science is clear – a fast and fair phase-out of oil and gas production is the only way to actually get out of the hole.

Figure 1: Proportional responsibility for planned oil and gas expansion by country



Source: Oil Change International analysis of data from Rystad Energy (July 2023)

1. INTRODUCTION

In January 2023, United Nations (UN) Secretary General António Guterres gave a speech in front of the World Economic Forum in Davos in which he called out "fossil fuel producers" for "racing to expand production, knowing full well that this business model is inconsistent with human survival."[4] In a subsequent press conference, Secretary-General Guterres stressed that in the absence of profound "transformation plans," the trajectory of the oil and gas industry and its enablers makes them "planet-wreckers."[5]

These words are grounded in science. Fossil fuels are the largest cause of global heating.[6] At 1.1°C of temperature rise to date, the impacts of scorching high temperatures, drought, flooding, and other weather extremes are destroying communities and causing hunger, disease, death, mass migration, and ecosystem collapse.[7] Yet, fossil fuel pollution hit a record high in 2022.[8] People in the Global South, and Indigenous Peoples, People of Color, and low-income people across the world that have done the least to cause this crisis are being hit hardest by the impacts. The latest comprehensive report by the Intergovernmental Panel on Climate Change (IPCC) warns that every fraction of a degree of additional global warming will make climate extremes like heat waves, floods, and fires more severe and raise the risk of compound, cascading, and irreversible ecosystem, economic and human losses. These risks escalate significantly beyond 1.5°C of warming, the limit set by the Paris Agreement.[9]

Faced with a growing gap between escalating climate impacts and the inadequate pace of policy change to constrain the production and use of fossil fuels, Secretary-General Guterres articulated an "Acceleration Agenda" listing measures countries should urgently adopt to get global decarbonization on track. In regard to oil and gas, these measures include:[10]

- Ceasing all licensing or funding of new oil and gas,
- Stopping any expansion of existing oil and gas reserves,
- Shifting subsidies from fossil fuels to a just energy transition, and
- Establishing a global phase down of existing oil and gas production compatible with the 2050 global net zero target.

These measures form the basis for the energy transition plans that countries are asked to submit at the UN Climate Ambition Summit, which will take place on September 20, 2023 in New York City. Secretary-General Guterres is putting demands to end fossil fuels front and center on the global stage after decades of mobilizing led by Indigenous Peoples and other communities on the frontlines of fossil fuel pollution. Environmental justice, Indigenous and other peoples' movements have long demanded the shift to regenerative energy systems that protect peoples' livelihoods, human rights, clean air and water, and healthy ecosystems.

This report examines the climate imperative of governments heeding the call of UN Secretary-General Guterres and people across the world to end oil and gas expansion.

The reality is that the fossil fuel industry and its enablers in government have already licensed, permitted, and constructed more oil and gas fields, coal mines and other fossil fuel infrastructure than is compatible with a livable climate. The IPCC's recent synthesis report warned that, "projected CO_2 emissions from existing fossil fuel infrastructure without additional abatement would exceed the remaining carbon budget for 1.5°C."[11] Building on peer-reviewed research,[12] Oil Change International (OCI) has shown that the majority of the fossil fuel reserves within active fields and mines must stay in the ground to have a 1-in-2 chance of limiting warming to 1.5°C.[13] Even if coal mining stops immediately, developed oil and gas reserves alone could push the world beyond 1.5°C. All together, developed fields and mines contain enough fossil fuels to push the world beyond 2°C, a significantly more dangerous threshold.[14]

Thus, ending oil and gas expansion is a crucial and urgent step but not sufficient. Protecting a livable climate will require a fast and fair phase out of existing fossil fuel production alongside a fast and fair ramp up of energy efficiency and renewable energy solutions globally. The phase out must begin immediately because the remaining carbon budget to limit global warming to 1.5°C has dwindled rapidly. At current rates of carbon pollution, the world will exhaust the 1.5°C budget in just nine years, by 2032.[15] Recent analysis from Climate Analytics finds that fossil fuel production and use (oil, gas, and coal combined) must fall by 40 percent by 2030.[16] The same analysis shows it is possible to replace fossil fuels with better, safer alternatives, ramping up wind and solar energy deployment five-fold, to 1.5 terawatt (TW) per year by 2030, while using energy more efficiently and fairly, including curbing overconsumption by the world's wealthiest people.[17]

A fair phase-out must be guided by principles of justice and equity and leave no one behind. Not all fossil fuel producing countries have the same degree of dependence on fossil fuel revenues and ability to plan and implement economic diversification and just transition strategies, nor the same level of historical responsibility for driving climate pollution and exploitative models of resource extraction.[18] As over 150 economists detailed ahead of the 2023 "Summit for a New Financing Pact,"

wealthy countries have no shortage of resources to pay their fair share to support a global fossil fuel phase-out. Wealth taxes, Global South debt cancellation, and defunding fossil fuels are three key levers that could raise over USD 3 trillion per year in public funds for these efforts.[19] Beyond economic capacity and historical responsibility, the fossil fuel phase-out must be guided by environmental justice and respect for the sovereignty of Indigenous communities, prioritizing an end to extraction where it is destroying the health and livelihoods of communities and/or violates the rights of Indigenous Peoples to free, prior and informed consent. The energy transition must also ensure universal access to healthy, safe energy and protect workers and communities, ensuring labor rights, decent work, and the clean-up of local environments.

Saying no to new oil and gas is a basic and essential building block to a fast and fair phase out of all fossil fuel production, grounded in climate science. It is a requirement for any government claiming 1.5°C-aligned climate ambition.

In the following sections of this report we expose the top 20 countries with the biggest plans to enable new oil and gas extraction that would lock in climate chaos. We then focus on the biggest hypocrites among them: The global north countries with the greatest wealth and historic responsibility for causing the climate crisis. These are the governments that should be moving first and fastest to phase-out fossil fuels — yet threaten to add more planet-wrecking fuel to the fire.

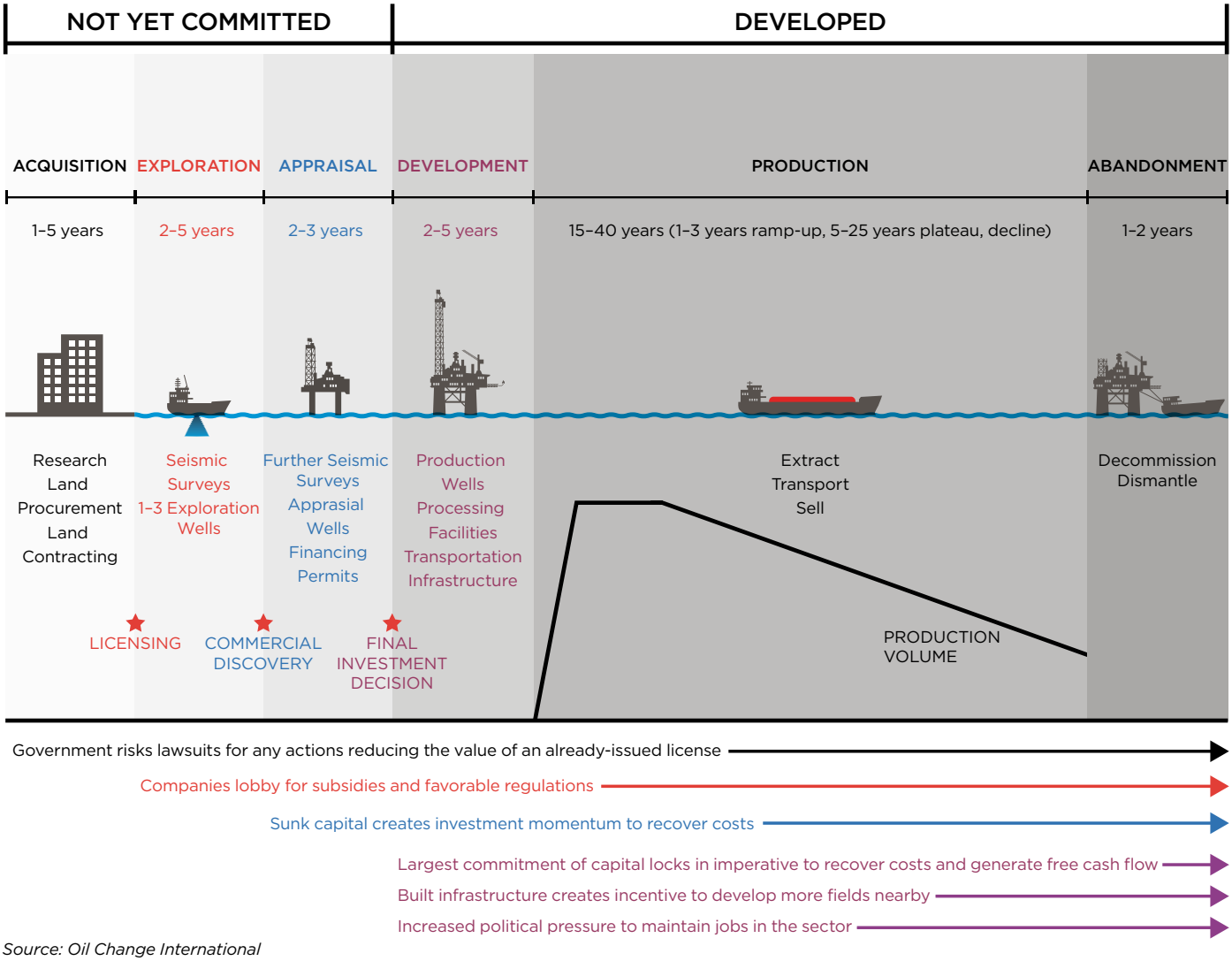
Protest at the UNFCCC climate negotiations.

2. HOW 20 COUNTRIES ARE DRIVING NEW OIL AND GAS EXTRACTION

First, it is important to underscore the central role of governments in enabling or stopping oil and gas expansion. In the life stages of an oil and gas field depicted in Figure 2, governments must typically issue a license (or lease or contract) to a fossil fuel company before the company can explore for oil and gas resources. If oil and gas is discovered, companies typically need various permits or consent from governments before proceeding with construction and extraction. Governments decide whether to issue or deny permits for pipelines, export terminals, and other types of infrastructure that companies rely on to transport extracted oil and gas to markets. Throughout the life of a project, governments set the fiscal terms and choose whether to provide public money and other subsidies to prop up extraction. At every step, fossil fuel companies lobby policymakers for favorable terms to maximize their profits.

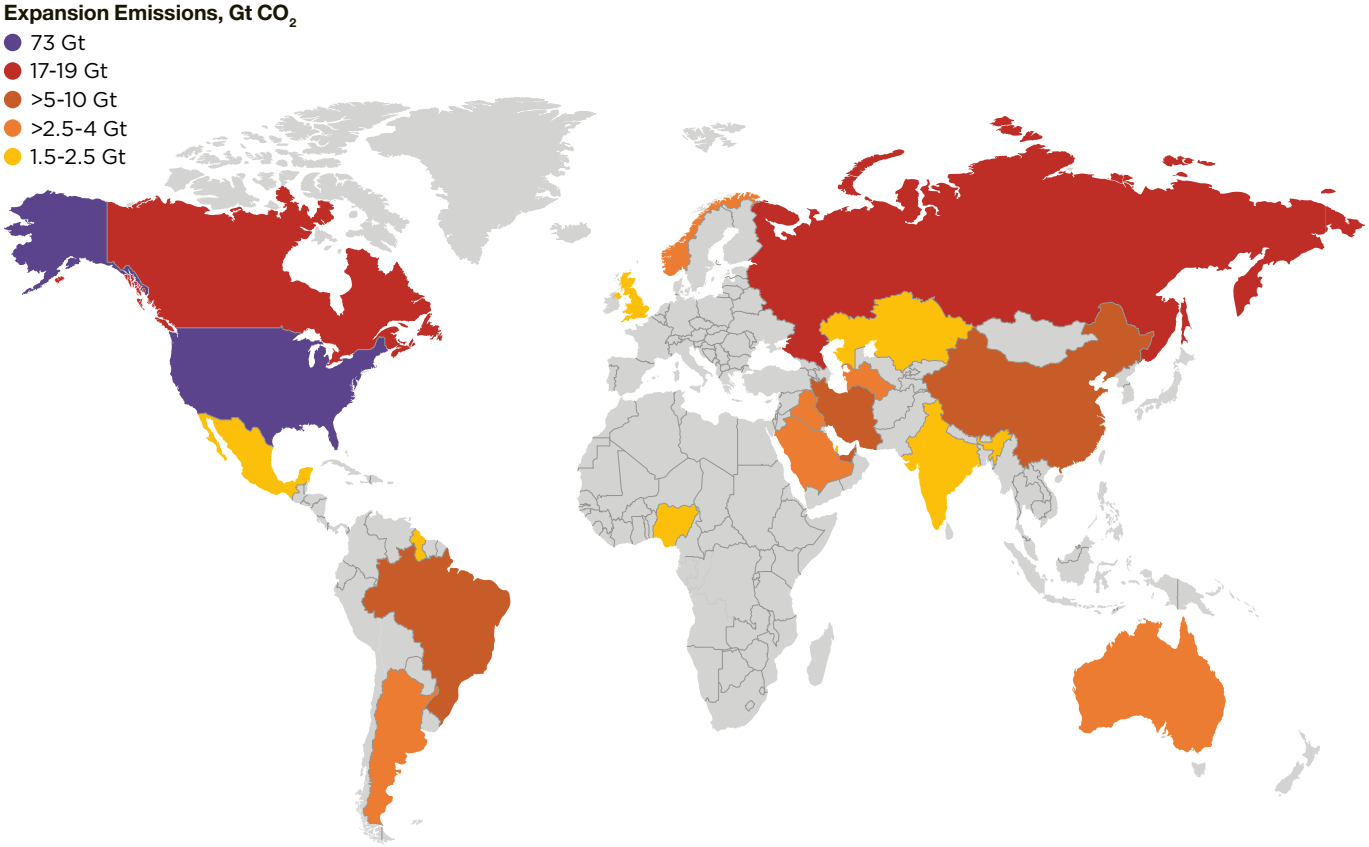
The science is clear that expansion of both existing and new fossil fuel production needs to end everywhere. However, the responsibility for expansion does not lie with all countries equally. Here, we use the Rystad Energy database to rank countries according to their projected oil and gas production from new oil and gas fields and fracking wells between 2023 and 2050 and the carbon pollution this new extraction would cause when burned (See Methodology). We define "oil and gas expansion," or "new extraction," as projected production from sites that have not yet reached the "developed" stage in Figure 2. These sites still require permits and/or exploration licenses from governments, or final investment decisions by companies, before drilling can begin. **Thus, these potential sources of new pollution can still be stopped in their tracks, their reserves kept in the ground.**

Figure 2: Life stages of a typical oil and gas extraction project and the types of carbon lock-in associated with each stage



Source: Oil Change International

Map 1: Top 20 countries, by CO_2 emissions threatened by oil and gas expansion, 2023 to 2050



Source: Oil Change International analysis of data from Rystad Energy (July 2023)

Our analysis shows only a small number of countries account for the vast majority of the threat: **20 countries – led overwhelmingly by the United States – are responsible for nearly 90 percent of the carbon pollution threatened by new oil and gas extraction between 2023 and 2050. (Map 1; Table 1).**

The carbon pollution estimates in Table 1 reflect the emissions that would result *globally* from burning oil and gas extracted from new fields and fracking wells in the given country, regardless of where it is ultimately burned (e.g., including oil and gas that may be exported and burned elsewhere). Thus, these estimates differ from estimates of territorial or domestic emissions. Many of these plans are being actively fought and can still be stopped.

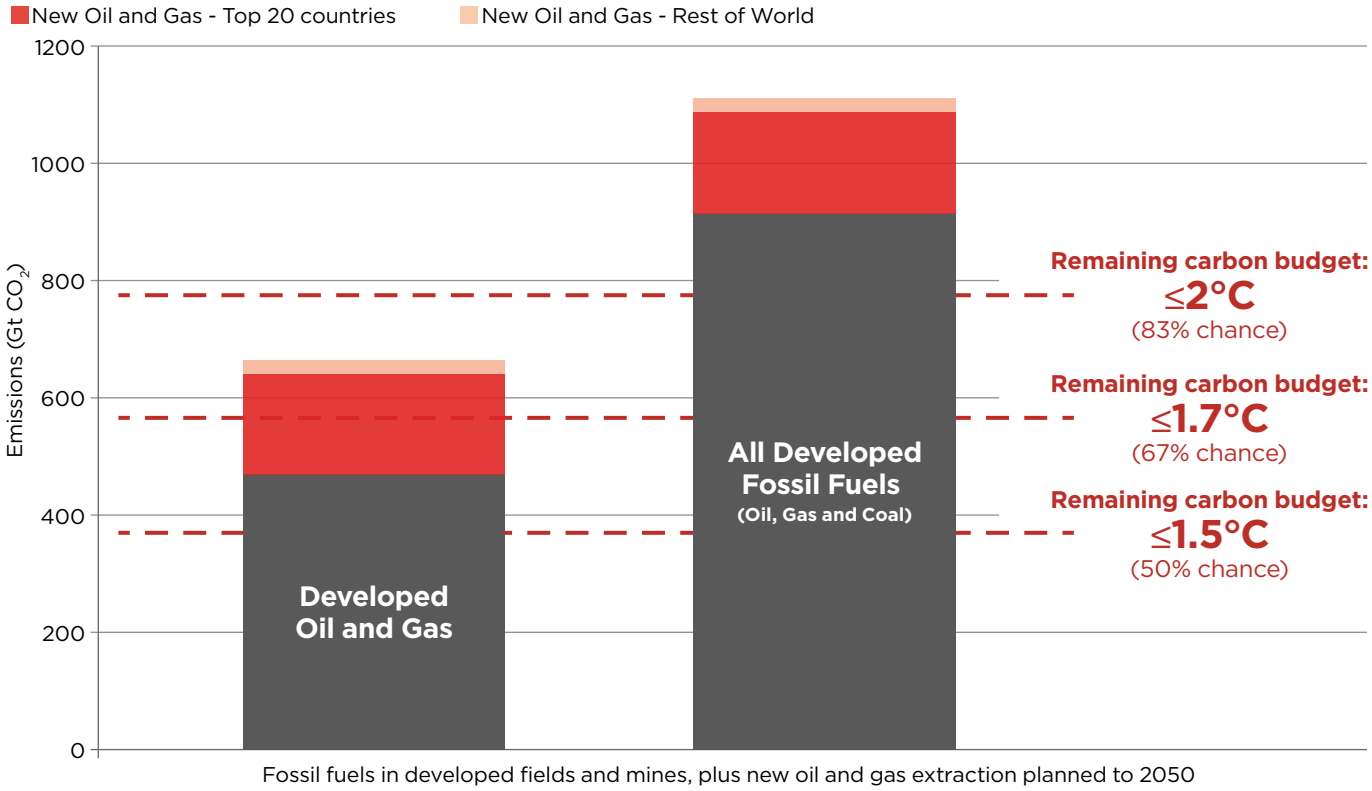
Because we focus on new oil and gas development, and count emissions based on the country of extraction (not consumption), the rankings in Table 1 do not reflect countries' total projected oil and gas production or emissions over this time period. Nor do they account for countries' historical and ongoing cumulative contribution to the climate crisis, which varies greatly (for example, Guyana is an important carbon sink and its oil is largely being exported to be burned in other countries).

Table 1: Top 20 countries, ranked by carbon pollution threatened by oil and gas expansion, 2023 to 2050

Country	Cumulative pollution from new oil and gas extraction, 2023-2050, Gt CO_2			New coal plants equivalent (by lifetime emissions)
	Oil	Gas	Total	
United States	34.2	38.3	72.5	454
Canada	8.9	9.8	18.6	117
Russia	5.0	12.3	17.3	108
Iran	3.2	6.6	9.7	61
China	3.2	5.7	8.9	56
Brazil	4.9	0.8	5.7	36
UAE	3.8	1.6	5.4	34
Australia	0.6	3.4	4.0	25
Argentina	2.2	1.4	3.5	22
Iraq	2.4	1.0	3.4	22
Turkmenistan	0.2	3.2	3.4	22
Norway	1.8	1.1	3.0	19
Saudi Arabia	1.5	1.4	2.9	18
Mexico	1.8	0.6	2.4	15
Guyana	2.2	0.1	2.4	15
Qatar	0.7	1.5	2.3	14
Nigeria	1.3	0.8	2.1	13
United Kingdom	1.2	0.6	1.8	12
India	0.7	1.0	1.7	11
Kazakhstan	1.3	0.2	1.5	9
Top 20 total	**81.1**	**91.5**	**172.6**	**1082**
Global total	**90.8**	**104.4**	**195.2**	**1223**

Source: Oil Change International analysis of data from Rystad Energy (July 2023)[20]

Figure 3: CO_2 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 analysis using data from Rystad Energy (for developed and new oil and gas emissions),[23] Trout and Muttitt et al, 2022 (for developed coal emissions),[24] IPCC[25] and Global Carbon Project[26] (for carbon budgets)

In some cases, such as the United States, Canada, and the United Arab Emirates, planned expansion projects would cause countries' oil and gas extraction to *increase* to 2030 or beyond, even as the science shows global oil and gas production must begin rapidly declining in the 2020s (see Section 3). In other cases, such as the United Kingdom and Norway, new fields and licenses are not expected to increase overall production but would slow or stall a more rapid phase-out of production that is required for a rapid and equitable global transition. The inclusion of Guyana in this list is emblematic of a push by U.S. and European oil and gas companies driving expansion into new frontier countries that previously have had little or no oil and gas production.

Collectively, the scale of the planned oil and gas expansion projects in these 20 countries is staggering. The oil and gas contained in these new projects would cause 173 Gt CO_2 of cumulative pollution between 2023 and 2050 if fully extracted and burned (Table 1). **In other words, if these 20 countries heed the call from UN Secretary-General Guterres to end new licensing and new extraction, they could help prevent 173 Gt of new CO_2 pollution (Table 1). That is equivalent to the lifetime emissions of almost 1,100 new coal plants or more than 30 years of annual U.S. carbon emissions.**[21]

If governments allow this scale of new oil and gas extraction, it could become impossible to hold global temperature rise to the 1.5°C limit. As shown in Figure 3, the oil and gas fields and coal mines already in operation globally would push the world well beyond safe climate limits by locking in 140 percent more carbon pollution than the allowed budget for 1.5°C. If these countries proceed with their new extraction plans, carbon pollution would be 190 percent over the 1.5°C budget, risking locking in more than a dangerous 2°C of warming. Already, nearly 60 percent of the fossil fuels in existing fields and mines must stay in the ground to keep global temperature rise to 1.5°C[22]. Oil and gas expansion threatened by the top 20 expander countries would make this situation even more dire. To compensate for extraction from new fields and licenses, more than three quarters of the oil, gas, and coal within already active extraction sites need to stay in the ground.

It is clear that the policy decisions taken in these 20 countries will have a very significant impact on our collective ability to ward off the worst impacts of the escalating climate crisis.

A first and common sense step called for by the UN Secretary-General and hundreds of civil society groups around the world[27] is for all governments to put an immediate end to new licensing for oil and gas exploration. This policy is also the core commitment that members of the Beyond Oil and Gas Alliance,[b] led by Denmark and Costa Rica, have made and are aiming to convince more and more jurisdictions to emulate.

b The Beyond Oil and Gas Alliance (BOGA is a diplomatic alliance of jurisdictions that have taken measures to end oil and gas licensing and align their production with the objectives of the Paris Agreement; "Beyond Oil and Gas," 2023, www.beyondoilandgasalliance.org.

Table 2: Top 20 countries' potential cumulative emissions from new oil and gas production, by current project life stage and levers to stop expansion

Current life stage	Cumulative carbon pollution threatened by new oil and gas production, 2023 to 2050, Gt CO_2	Proportion of Total Expansion Emissions	Examples of policy levers to stop expansion
Discovered	118.1	68%	Reject/revoke permits for new fields and related infrastructure (e.g., pipelines and export terminals)
Licensed / under exploration[c]	40.3	23%	Renegotiate/revoke active licenses; remove public subsidies that encourage new exploration and extraction
Not yet licensed	14.1	8%	Cease licensing or leasing
Total	173		

Source: Oil Change International analysis of data from Rystad Energy (July 2023)

While critical and urgent, ending new licensing alone will be insufficient to prevent most of the new oil and gas extraction planned through 2050, as shown in Table 2. Only eight percent of the carbon emissions from planned expansion in these 20 countries depends on governments issuing new licenses (Table 2). Keeping the rest of the oil and gas, and subsequent carbon pollution, in the ground would require further policy action and legal steps, including canceling permitting of new extraction sites and related infrastructure and revoking active exploration licenses, as well as ending subsidies and finance propping up the expansion of oil and gas production with public money.

None of the 20 countries set to drive expansion are among the 'first movers' committing to this first basic step of ending new oil and gas licensing. Some have committed to end *international* public finance for fossil fuel extraction. At the global climate conference in Glasgow in 2021, 39 countries and institutions committed to end their trade and development finance for fossil fuels by the end of 2022 and instead prioritize their public finance for clean energy. Signatories of this initiative (called the Clean Energy Transition Partnership) includes some of the Planet Wreckers and large historic fossil fuel producers and financiers, including the United Kingdom, Canada, and the United States. This is significant—if all signatories fulfill their commitment with integrity they would cut off a major source of funding for hard-to-build fossil fuel infrastructure projects,[28] and collectively double their clean energy finance to USD 37 billion a year, a sum large enough to close the energy access finance gap.[29]

However, this commitment must be expanded to address these countries' *domestic* subsidies and other policies that prop up oil and gas expansion, as detailed in the country snapshots in Section 4. It is hypocritical and incompatible with climate leadership for wealthy fossil fuel producers to shift their international finance out of fossil fuels and into a just energy transition while still allowing planet-wrecking levels of oil and gas expansion at home.

Protest at the UNFCCC climate negotiations.

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c In addition to conventional oil and gas still in process of exploration, this category includes shale oil and gas that is fully identified and leased but not in "core" areas to be drilled in the near term.

3. NO NEW OIL AND GAS: A NECESSARY STEP TOWARDS A RAPID PHASE-OUT OF OIL AND GAS PRODUCTION

On top of ending the expansion of oil and gas production, UN Secretary-General Guterres has repeatedly called for a global "phase down" of existing production in line with the objective of reaching net zero global emissions by 2050. Globally recognized scenarios, such as those assessed by the International Energy Agency (IEA) and IPCC, can provide guidance on the pace of the reduction in oil and gas production that is needed by 2050.

According to the IEA's "Net Zero by 2050" scenario, which gives a one-in-two chance of holding temperature rise to 1.5°C, oil and gas production must decline by three percent per year on average between now and 2030,[30] a pace consistent with feasible 1.5°C scenarios assessed by the IPCC.[31] That pace accelerates to nearly six percent per year between 2030 and 2050 (see the green line in Figure 4).[32]

But oil and gas extraction must be phased out more rapidly to avoid reliance on risky and expensive technologies like carbon capture and storage (CCS) and engineered carbon removal that are unproven to work at scale. The IEA's and many other energy scenarios rely on large-scale future deployment of CCS to enable more fossil fuel production and use than would otherwise be compatible with 1.5°C.[33] This is despite the IEA's own data showing the world is far off track from realizing the scale of CCS on which its scenario depends.[34]

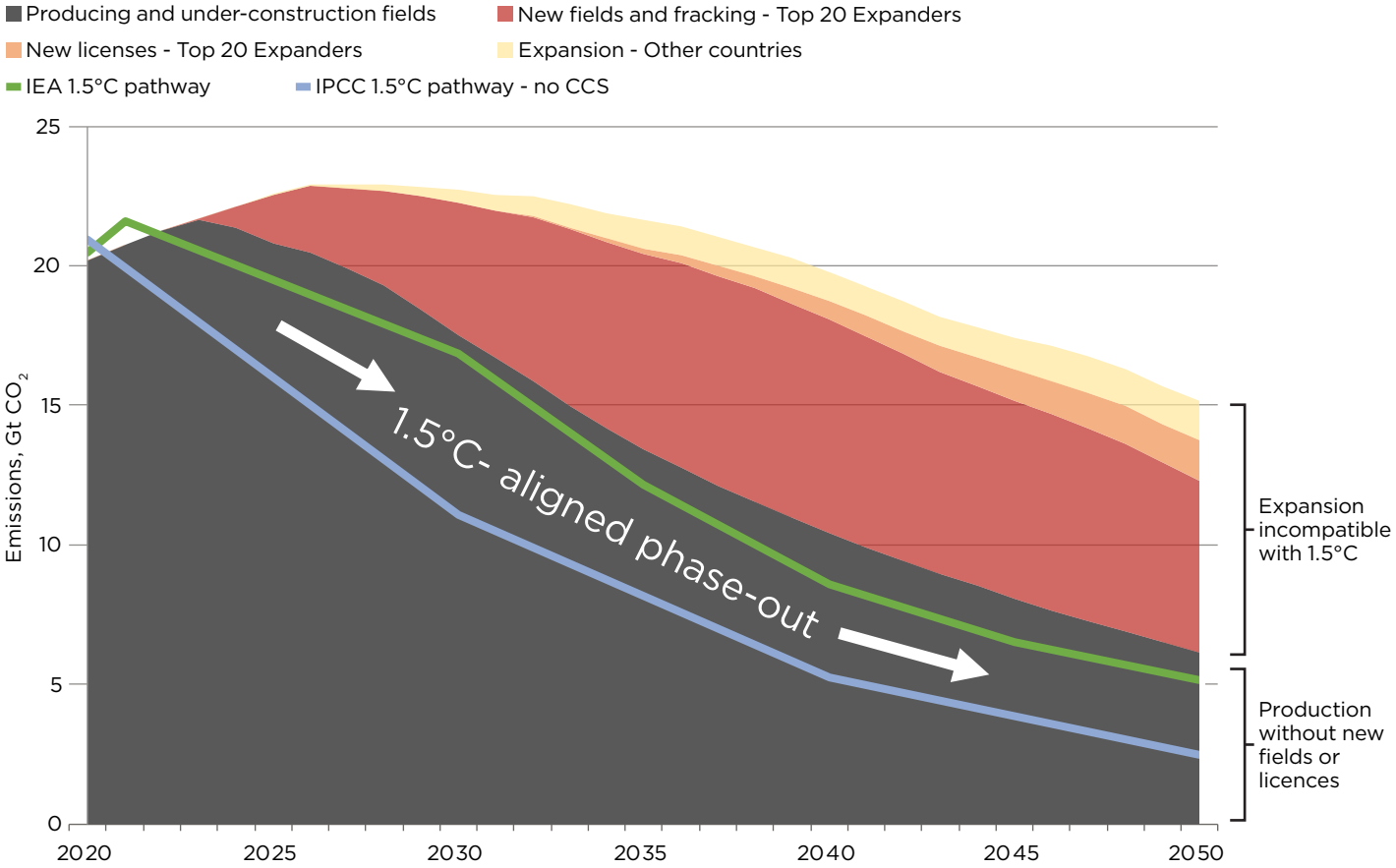
The IPCC's latest assessment report features an illustrative pathway that indicates how quickly oil and gas must be phased out while avoiding reliance on either CCS or engineered carbon removal.[35] **In this scenario, oil and gas production declines by six percent per year on average to 2030,** roughly double the rate of the IEA scenario**. Between 2030 and 2050, the decline accelerates to seven percent per year** (see the blue line in Figure 4).

By following the UN Secretary-General's demands for no new oil and gas, countries would begin to align global oil and gas production with a fast and fair phase-out trajectory. **Without any new fields or licenses, global oil and gas extraction would decline by around two percent per year to 2030 and by five percent per year from 2030 to 2050** (see the gray area in Figure 4). While the resulting phase-out pace would still fall short of what is required, ending new production is an essential and common-sense first step towards a managed phase-out of global production that protects a livable climate. Even under the IEA's scenario that includes significant CCS, there is no room for new oil and gas fields.

Pumpjacks extract crude oil in Kern River Oil Field in Bakersfield, California.

© David McNew / Greenpeace

Figure 4: Global oil and gas extraction with and without new expansion to 2050, compared to 1.5°C-aligned pathways



Source: Oil Change International analysis of data from Rystad Energy (January 2023), IPCC AR6 Scenarios Database hosted by IIASA,[36] IEA[37]

Figure 4 also illustrates that more ambition is required. Beyond stopping new production, a portion of fields currently under construction and operating must be phased out. In fact, the difference between the 1.5°C-aligned pathways with and without CCS shown in Figure 4 is the scale at which existing fields must be shut down early. As discussed in the next section, the wealthiest Planet Wreckers are precisely the countries that must be moving first and fastest to phase out this existing extraction.

A more rapid oil and gas phase-out would lessen the risks of passing irreversible climate tipping points and of relying on CCS and other industry techno-fixes with a track record of false promises and failure.[38] While the fossil fuel industry is heavily promoting CCS[39] as an excuse to prolong its business model,[40] the IPCC ranks CCS as the lowest potential, highest cost mitigation option in the short-term,[41] and CCS has delivered miniscule real-world mitigation to date.[d] Capture rates are much lower than advertised and CCS is currently used primarily to *increase* oil extraction.[42] Additionally, CCS projects would bring new health and safety risks[43] to communities already overburdened by fossil fuel industry pollution.[44] **Governments should be proactively managing a rapid and just transition off of oil and gas production at the pace needed to hold warming below 1.5°C without gambling on techno-fixes that prop up polluting industries and cannot deliver the scale of emissions reductions required.** Betting on technologies with a long track record of overpromising and under delivering is an extremely risky bet for our collective future.

d Globally, operational CCS projects have the capacity to capture a maximum of 46 Mt CO_2 per year, amounting to just 0.1 percent of global CO_2 emissions from energy in 2022. The actual rate of capture is even less than that total capacity; IEA, "CCUS Projects Explorer;" IEA, "CO_2 Emissions in 2022."

4. CLIMATE HYPOCRITES: THE RICHEST PLANET WRECKERS RESPONSIBLE FOR OIL AND GAS EXPANSION

The group of countries responsible for the most planned expansion of oil and gas production is not a homogeneous group. It encompasses countries facing very different degrees of wealth and dependence on fossil fuel revenues and jobs and, therefore, ability to manage a rapid transition away from fossil fuel extraction. While oil and gas expansion needs to end everywhere in order to maintain a chance of limiting warming to 1.5°C, **expansion in countries with high incomes, a high degree of ability to transition away from fossil fuels, and outsized historical responsibility for causing the climate crisis is particularly inexcusable.** An equitable phase-out of fossil fuels requires that these countries immediately end expansion, phase-out existing production at an accelerated pace, support affected workers and communities through the transition, and provide their fair share of financial as well as technical support to countries with fewer resources to invest in a rapid transition.[45]

This is not to suggest that extraction does not need to be phased out rapidly elsewhere. Across Africa,[46] Asia,[47] and Latin America[48] frontline communities and peoples' movements are fighting to stop the buildout of fossil fuel projects and push for just alternatives, resisting an industry often tied to human rights abuses, health and environmental degradation, increased inequality and public debt, displacement, and violent conflict. In many cases, these fossil fuel projects bring few benefits to local communities, while profits and products are exported and/or benefit a wealthy few.[49] At the same time, global north governments, such as top fossil fuel financier Japan (Box 2), and companies headquartered in the global north, play a key role in pushing and funding many of these damaging projects, often to supply their own market. This is true even as rich governments neglect to deliver the finance they owe to Global South countries to address climate loss and damage, adaptation, and transition needs.[50]

Tackling both the climate crisis and global inequality requires that the richest nations and biggest historical polluters phase out their already outsized contribution to the problem first and fastest and repay their climate debt.[51]

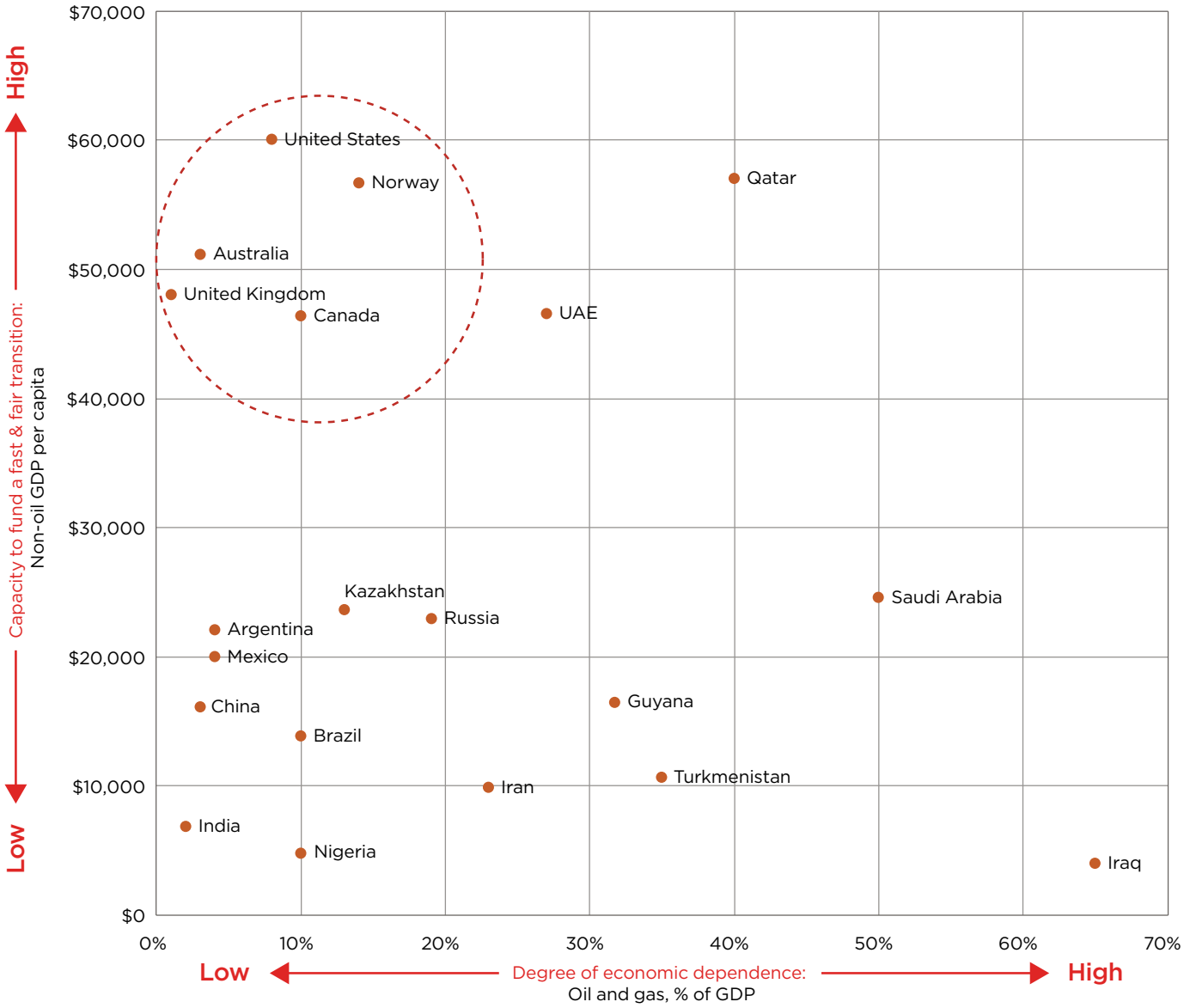
Defining a country's economic ability to transition away from its dependence on oil and gas extraction can be a difficult exercise. A simple, albeit imperfect, indicator that has been proposed in a recent report by the Tyndall Center for Climate Change Research[52] is to look at a country's "non-oil (and gas) Gross Domestic Product (GDP) per capita." While this indicator does not capture the full picture of a country's degree of economic, political, and social dependence on the fossil fuel sector, it provides an approximation of a country's available wealth outside of its oil and gas extraction sector and, therefore, its potential resilience to a rapid wind down of its oil and gas industry.

By that measure, five countries driving global oil and gas expansion stand out as the biggest climate hypocrites and most egregious Planet Wreckers: the United States, Canada, Australia, Norway, and the United Kingdom (Figure 5). These countries are wealthy and economically diversified, with a low level of dependence on oil and gas revenues and, therefore, a high capacity to manage a fast transition away from oil and gas. Four of these countries (excluding Norway) are amongst the top ten historical contributors to the climate crisis based on their domestic emissions.[53] Our analysis shows that by cumulative carbon pollution threatened by oil and gas expansion, the United States and Canada rank first and second, Australia is eighth, Norway is 12th, and the UK is 18th (see Table 1).

Protest at the UNFCCC climate negotiations.

© David Tong / Oil Change International

Figure 5: Top 20 expansion countries by capacity to fund a fast and fair transition relative to degree of economic dependence on oil and gas



Source: Calverly and Anderson (2022),[54] International Monetary Fund and World Bank.[55,56] GDP per capita based on purchasing power parity (PPP) in international dollars as of 2019 (or 2021 in the case of Guyana).

These five countries collectively account for 51 percent of the carbon pollution from projected global oil and gas expansion. The United States emerges as the worst culprit by far, accounting on its own for more than one-third (37 percent) of planned expansion (Figure 1).

Thus, over half of global projected oil and gas extraction is poised to come from a handful of rich Planet Wreckers that have the technical, financial, and economic ability to phase out fossil fuels the fastest while minimizing negative impacts on affected workers and communities. **An equitable phase-out trajectory for global oil and gas production based on economic capacity would see these countries completely phase-out their own oil and gas production by the mid-2030s while committing their fair share to finance a fair transition globally.[57]** As a recent letter signed by over 150 economists to global north leaders makes clear, it is not a matter of resources, but of redistributing them to prioritize the welfare of people and the planet.[58]

By metrics of wealth and capacity, two additional Planet Wrecker countries stand out: the UAE and Qatar. The UAE and Qatar respectively rank seventh and 16th in terms of planned oil and gas expansion through 2050. These two countries have historically been heavily reliant on fossil fuel revenues, with strides towards economic diversification emerging quite recently in the UAE.[59] However, they are also some of the richest countries in the world and have high non-oil and gas GDP per capita (Figure 5). In its role as COP28 President in 2023 (see Box 1), the UAE has strengthened its emissions reduction targets on paper. However, analysis shows that the country's policies and actions remain insufficient and contradictory, with "planned fossil fuel developments" that would render its new targets "unachievable."[60] Meanwhile, Qatar, in partnership with global north-based international oil and gas majors, is facilitating the largest Liquefied Natural gas (LNG) expansion project in the world, described as a massive "carbon bomb."[61]

The climate hypocrisy of many of these countries is all the more staggering given many of them have tried to depict themselves as climate leaders on the international stage while actively

promoting increased fossil fuel production that they know is accelerating the climate crisis.[62] The five global north Planet Wrecker countries, with the notable exception of Norway,[63] have all committed to reaching net zero emissions by 2050. While Qatar has not set a similar target, the UAE has repeatedly committed to reaching net zero emissions by 2050. All of these countries are signatories to the Paris Agreement goal of pursuing "efforts to limit warming to 1.5°C," which requires active policies to prevent new oil and gas fields from coming online. The United States, Canada, Australia, Norway, and the UK reportedly[64] supported including a call to phase out fossil fuels in the conclusions of last year's UN climate conference – only to turn around and continue promoting more fossil fuel extraction at home.

In the following country snapshots, we further document how each of these five countries are facilitating and pushing new oil and gas extraction that is incompatible with the 1.5°C limit. We show none of these countries come anywhere close to fulfilling the UN Secretary-General's demands for an end to expansion and a 1.5°C-aligned oil and gas phase-out.

Brent oil field in the North Sea.

© Martin Langer / Greenpeace

PLANET WRECKER COUNTRY SNAPSHOTS:

United States: Planet wrecker in chief

U.S. oil and gas expansion by the numbers				
Cumulative CO_2 pollution threatened by new extraction until 2050:	Equivalent to:		Planet Wrecker rank, carbon pollution from planned expansion:	Planet Wrecker rank, phase-out capacity (non-oil and gas GDP per capita):
72.5 Gt CO_2	Lifetime emissions of 454 new coal plants	13 years of U.S. domestic emissions[65]	1	1

Compliance with UN Secretary-General oil and gas demands			
End new oil and gas licensing?	Cease new extraction projects?	End funding for new oil and gas?	Commit to 1.5°C-aligned oil and gas phase-out?
No	No	No - Promise Breaker	No

The United States is by far the largest oil and gas producer in the world: it was responsible for one in every five barrels of oil and gas extracted globally in 2022.[66] In 2022, the United States also led the world in new oil and gas extraction committed to development.[67] **The US is also the largest historical emitter of CO_2.**

The United States is poised to be the world's largest expander of oil and gas extraction from 2023 to 2050, single handedly representing more than one-third of planned global expansion. Much of the United States planned expansion is tied to oil and gas fracking and LNG, centered in the Permian Basin of Texas and New Mexico and along the U.S. Gulf Coast. Communities that have long borne the toxic burden of oil and gas industry pollution, especially Black, Indigenous, People of Color, and low-income communities, are fighting a wave of new infrastructure primarily designed to serve export markets.[68]

Approving new fossil fuel licensing, extraction, and enabling infrastructure:

Despite pledging climate leadership, the Biden Administration's policies have facilitated the continued expansion of fossil fuel production in the United States.[69] In 2023 alone, the administration greenlit the Alaska Willow Project; approved multiple LNG export facilities in Alaska and along the Gulf Coast, held a massive oil and gas lease sale in the Gulf of Mexico, fast-tracked the Mountain Valley Pipeline, and oversaw the weakening of bedrock environmental laws making it easier for fossil fuel infrastructure to move forward. More U.S. onshore and offshore oil and gas lease sales are planned in 2023.

While the Inflation Reduction Act (IRA), which President Biden touts as his flagship climate achievement, incentivizes new renewable energy and clean technology deployment, it does not guarantee any reduction in U.S. oil and gas production. In fact, the IRA encourages its expansion by mandating new fossil fuel leasing.[70] Even if the IRA succeeds in reducing oil and gas consumption within the United States, it allows for increasing amounts of U.S. oil and gas production to be exported and burned elsewhere, continuing to contribute to global emissions[71].

Much of the planned U.S. expansion is dependent on federal approval of new pipelines and export infrastructure. More than 500 groups from six continents and 63 countries sent a letter to President Biden demanding he take the following actions to end U.S. fossil fuel expansion and earn entry to the Secretary-General's summit:[72]

- Reject federal permits for new fossil fuel projects and revoke illegally granted permits for fossil fuel projects;
- Phase out fossil fuel production on federal public lands and waters;
- Limit gas and all fossil fuel exports to the full extent allowed by law; and
- Declare a climate emergency and reinstate the crude oil export ban.

Propping up fossil fuels with public money:

Domestically, U.S. federal and state governments are estimated to spend as much as USD 20 billion annually propping up fossil fuel production.[73] The IRA represents one of the largest single giveaways to the fossil fuel industry in U.S. history: it authorized tens of billions of dollars for carbon capture projects, as well as an expansion of the 45Q tax credit, which Bloomberg New Energy Finance has estimated to be worth up to USD 100 billion by 2030.[74]

On the international stage, the United States signed onto the Clean Energy Transition Partnership (CETP - sometimes called the 'Glasgow Statement'),[75] pledging to end public finance for overseas fossil fuel projects by the end of 2022. Unfortunately, the United States broke this pledge. It recently approved public finance for U.S. LNG exports[76] and for an oil refinery in Indonesia.[77] More fossil fuel projects are pending approval, including a controversial LNG project in Papua New Guinea and a fossil gas project in Guyana.[78] Unlike other signatories including Canada, France, and the United Kingdom, the United States has not yet

published an official policy to implement its commitment.[79]

Local leadership in the right direction:

Despite the United States' abysmal record in reining in oil and gas production, examples of local leadership on this issue have emerged around the country. One exemplary state is California. In response to advocacy by communities on the frontlines of neighborhood drilling, Governor Gavin Newsom adopted measures to limit oil and gas production, including a recent health buffers law prohibiting new oil and gas drilling within 3,200 feet (1km) of sensitive areas (which is currently being challenged in a ballot measure brought by the fossil fuel industry),[80] a ban on fracking by 2024, and a commitment to phase out oil extraction by 2045.[81] These measures made California the first U.S. state to join the Beyond Oil and Gas Alliance, although at associate member level because California has not yet committed to end new oil and gas drilling.

Much work remains to protect communities. Specifically, the Newsom administration must stop issuing new drilling permits and phase out existing extraction adjacent to homes, schools, and parks.[82] However, California has set a precedent for how major oil and gas-producing states in the United States can start leading a phase out of production absent stronger federal action.

Canada: Uncapped pollution, endless greenwashing

Canadian oil and gas expansion by the numbers				
Cumulative CO_2 pollution threatened by new extraction:	Equivalent to:		Planet Wrecker rank, carbon pollution from planned expansion:	Planet Wrecker rank, phase-out capacity (non-oil and gas GDP per capita):
18.6 Gt CO_2	Lifetime emissions of 117 new coal plants	28 years of Canadian domestic emissions[83]	2	7

Compliance with UN Secretary-General oil and gas demands			
End new oil and gas licensing?	Cease new extraction projects?	End funding for new oil and gas?	Commit to 1.5°C-aligned oil and gas phase-out?
No	No	Partial policy with major loopholes; biggest funder in the G20	No

Canada was the fourth largest oil and gas producer in the world in 2022, behind Russia and Saudi Arabia.[84] Canada also ranked among the top five worst countries in terms of new oil and gas extraction approved for development in 2022.[85] Oil and gas production is Canada's largest emitting sector.[86] That is true even before accounting for the large portion of Canada's oil and gas production that is exported and burned beyond its borders.[87]

Canada is on track to be the world's second largest developer of new oil and gas extraction from 2023 to 2050. Canada alone could be responsible for 10 percent of planned expansion globally. As in the United States, much of this expansion is tied to fracking.

Approving new fossil fuel licensing, extraction, and enabling infrastructure:

Under Prime Minister Justin Trudeau, Canada's federal government has continued to approve and/or subsidize[88] major new pipelines and LNG export projects to enable the expansion of extraction, including Coastal GasLink, TransMountain, and LNG Canada, while also permitting new oil and gas fields such as Bay du Nord.[89] Many of these decisions face legal challenges and protests over both their climate impact and violation of the sovereignty of First Nations.[90]

Additionally, the provincial governments of Alberta and British Columbia are actively pursuing the expansion of extraction and export infrastructure through subsidies,[91] project approvals,[92] and lenient regulatory frameworks.[93]

Canada's federal government currently has an opportunity to stop expansion and implement a 1.5°C-aligned oil and gas phase-out through regulations under development to cap and cut emissions from the oil and gas sector.[94] The international community is watching closely: Canada must lead with a strong, ambitious cap that covers the entire oil and gas sector. This must also be accompanied by zero compliance flexibility, offsets, delays, or loopholes. Without these elements of a strong cap, Canada will likely fail to meet its 2030 target and international climate commitments.[95] Even then, further action will be required to manage a rapid oil and gas production phase out and ensure that a domestic cap is not undercut by exported oil and gas emissions.

Propping up fossil fuels with public money:

Canada ranks as the worst G-20 country for production subsidies and public finance for oil and gas.[96] This year, Canada followed through on its CETP promise made at COP26 to end international fossil fuel finance by the end of 2022, and a separate commitment to phase

out its self-defined "inefficient" fossil fuel subsidies by the end of 2023.[97] However, the majority of Canada's oil and gas support remains unrestricted, including domestic public finance at Export Development Canada (EDC), provincial-level subsidies, and growing support to fossil-based hydrogen and carbon capture and storage.[98] Domestic public finance at EDC is a particular concern as the source of CAD 50 billion in support for oil and gas since 2019.[99]

Local leadership in the right direction:

Canadian provinces and territories hold important oil and gas policy levers and the province of Quebec has shown how these can be used proactively to stop expansion. Quebec joined the Beyond Oil and Gas Alliance in 2021 and followed through in 2022 to become the first jurisdiction in the world to explicitly ban oil and gas development despite its non-negligible reserves.[100] This victory came after years of grassroots organizing uniting Indigenous nations, environmental activists, farmers, and more.[101]

Australia: Aggressive exporter of CO_2 pollution

Australian oil and gas expansion by the numbers				
Cumulative CO_2 pollution threatened by new extraction:	Equivalent to:		Planet Wrecker rank, carbon pollution from planned expansion:	Planet Wrecker rank, phase-out capacity (non-oil and gas GDP per capita):
4.0 Gt CO_2	Lifetime emissions of 25 new coal plants	8 years of Australian domestic emissions[102]	8	4

Compliance with UN Secretary-General oil and gas demands			
End new oil and gas licensing?	Cease new extraction projects?	End funding for new oil and gas?	Commit to 1.5°C-aligned oil and gas phase-out?
No	No	No	No

Australia is one of the world's top producers and exporters of fossil gas, in addition to being a major global coal producer and exporter. Accordingly, Australia ranks as the world's third largest exporter of fossil fuel pollution.[103]

Australia is poised to be the world's eighth largest expander of oil and gas extraction from 2023 to 2050. If allowed to proceed, new oil and gas fields in Australia could cause 4 Gt of additional carbon pollution over that time period, equivalent to the lifetime emissions of 25 new coal plants.

Approving new fossil fuel licensing, extraction, and enabling infrastructure:

Earlier this year, the Australian government adopted a reform of its Safeguard Mechanism, the country's main policy to rein in greenhouse gas emissions from large industrial emitters, in order to align it with the government's objective of reducing emissions by 43 percent of 1990 levels by 2030. Despite this new momentum for climate action in Australia, analysis by the Australian Institute shows that new coal and gas projects in the country would create 24 times more emissions than what the updated Safeguard Mechanism would prevent.[104]

The West Australian Environmental Protection Agency recently approved an extension of nearly 50 years for Woodside Energy's North West Shelf gas processing facility – this would allow it to operate until 2070, as well as enabling new gas fields in the surrounding areas like Scarborough and Browse. By the company's own estimate, the project will cause around 4 billion tonnes of carbon dioxide-equivalent emissions, or almost a decade of Australia's annual climate pollution.[105]

The Barossa Gas project off the northern coast of Australia is another "carbon bomb" and test of Australia's climate policies. After receiving Australian government approval, the project was blocked in court due to a legal challenge by Indigenous Tiwi Islanders seeking to protect their cultural heritage.[106] Yet Santos, the company behind the project, continues to push forward.[107] The project would be so pollution intensive, it could produce more tonnes of carbon dioxide than LNG.[108] If it moves forward, Barossa would be one of the largest gas projects in Australia in a decade.

The Australian Government recently introduced legislation to allow the cross-border trade of CO_2 pollution, which enables emissions captured by the Barossa Project to be shipped to neighboring Timor Leste for storage in underground depleted gas wells.[109] In this case, any failure of the CCS storage would be the responsibility of Timor Leste rather than Australia.

Propping up fossil fuels with public money:

The Australian Government continues to use taxpayers' money to fund new fossil fuel projects. Despite committing to end fossil fuel subsidies over 10 years ago as part of the G20, Australia continues to provide significant domestic fossil fuel subsidies, estimated at AUSD 11.1 billion in 2021-22.[110] Internationally, Export Finance Australia and the Northern Australia

Investment Fund awarded over a billion dollars in the past decade to some of the most polluting fossil fuel projects in the world.[111] The Australian Government refused to sign the COP26 Clean Energy Transition Partnership, which commits signatories to ending public support for international fossil fuel projects. Australia's commitment to this initiative could catalyze OECD's adaptation of oil and gas export finance restrictions, where Australia is a key negotiating country. More than 50 percent of OECD members joined the commitment to end international finance for fossil fuels.[112]

Australia expressed willingness to host COP31, alongside Pacific Island states. However, Australia's continued support for fossil fuel expansion stands in stark contrast with the leadership that Pacific Nations display on climate change and, on promoting a global call to phase out fossil fuel production and use.[113] Pacific leaders insist that their support to Australia's bid will be conditional on increased action to end fossil fuel expansion.[114]

Norway: The face of climate hypocrisy

Norwegian oil and gas expansion by the numbers				
Cumulative CO_2 pollution threatened by new extraction:	Equivalent to:		Planet Wrecker rank, carbon pollution from planned expansion:	Planet Wrecker rank, phase-out capacity (non-oil and gas GDP per capita):
3.0 Gt CO_2	Lifetime emissions of 19 new coal plants	60 years of Norwegian domestic emissions[115]	12	3

Compliance with UN Secretary-General oil and gas demands			
End new oil and gas licensing?	Cease new extraction projects?	End funding for new oil and gas?	Commit to 1.5°C-aligned oil and gas phase-out?
No	No	No	No

Norway is Europe's largest producer of oil and gas and one of the world's top 10 exporters of fossil fuel emissions.[116]

Norway is set to be the world's 12th largest developer of new oil and gas fields from 2023 to 2050. If Norway followed the demands from UN Secretary-General Guterres to stop new oil and gas projects, **this would prevent 3 Gt of CO_2 from being emitted by 2050, an amount 60 times larger than Norway's annual domestic emissions.**

Approving new fossil fuel licensing, extraction, and enabling infrastructure:

Instead, Norway is pursuing an aggressive policy to increase oil and gas exploration, having awarded as many exploration licenses from 2012 to 2021 as in the 47 years prior.[117] In 2023, the Norwegian government awarded 47 new licenses to 25 different oil and gas companies on the Norwegian shelf,[118] and announced a new Awards in Predefined Areas licensing round that was expanded with 92 blocks, among them several in the vulnerable arctic Barents Sea.[119]

Norway earned USD 89 billion in oil and gas revenues in 2022 due to the high prices that followed Russia's invasion of Ukraine, notwithstanding the dividends earned through state-owned oil and gas company Equinor.[120] Norway's sovereign wealth fund currently holds USD 1.3 trillion in assets, for a total population of 5.4 million, underscoring Norway's high capacity to invest in a fast and fair transition off of fossil fuels both domestically and internationally.

Norway's continued promotion of oil and gas exploration and development is in stark contradiction with its international commitments. Norway was recently on the record at COP27 in Sharm el Sheikh pushing for an outcome recognizing the need to phase out "unabated fossil fuels"[121] but has recently approved 19 new oil and gas projects, a move that was condemned by international civil society.[122]

Propping up fossil fuels with public money:

Norway's temporary tax break that was introduced as a response to the Covid-19 pandemic led to a staggering 35 projects greenlighted in the last two and a half years. Aggregated, the 35 projects are estimated to hold a total of 2.5 billion barrels of oil equivalent (boe) in economically and technically recoverable resources.[123]

Norway is the only Nordic country that has not yet joined the CETP 'Glasgow Statement' commitment to end new international public finance for fossil fuels and instead fully prioritize public finance for clean energy.[124]

United Kingdom: Claims of 'climate leadership' sink in the North Sea

UK oil and gas expansion by the numbers				
Cumulative CO_2 pollution threatened by new extraction:	Equivalent to:		Planet Wrecker rank, carbon pollution from planned expansion:	Planet Wrecker rank, phase-out capacity (non-oil and gas GDP per capita):
1.8 Gt CO_2	Lifetime emissions of 12 new coal plants	4 years of UK domestic emissions[125]	18	5

Compliance with UN Secretary-General oil and gas demands			
End new oil and gas licensing?	Cease new extraction projects?	End funding for new oil and gas?	Commit to 1.5°C-aligned oil and gas phase-out?
No	No	Partial - international only	No

Since North Sea oil and gas production began in the United Kingdom in the 1970s, the UK has been a major oil and gas producer, adding to an already large historical responsibility for climate change. The UK's plans to extract even more oil and gas from the North Sea make it a globally significant expander of the fossil fuel industry.

If the UK continues licensing and permitting new oil and gas fields, this could cause 1.8 billion tonnes of additional CO_2 pollution from 2023 to 2050. That is the emissions equivalent of reversing the UK's coal power phase-out and building 12 new power stations to burn coal over the next 40 years.

Approving new fossil fuel licensing, extraction, and enabling infrastructure:

The UK government has a legal framework to maximize "economic recovery"[126] from North Sea oil and gas production. Current government policy is to "max out" oil and gas extraction in the North Sea[127] and give the North Sea a "new lease of life" by approving new fields and licenses.[128] This contradicts the advice of the Independent Committee on Climate Change, which stressed in its recent progress report: "Expansion of fossil fuel production is not in line with Net Zero. [...] The UK will continue to need some oil and gas until it reaches Net Zero, but this does not in itself justify the development of new North Sea fields."[129]

In recent years, the British government pushed to approve new oil and gas projects, including the high-profile Cambo and Rosebank fields. In October 2022, the government opened a new licensing round, allowing over 100 new licenses and blatantly defying climate science.[130] The British Prime Minister re-announced plans for continued licensing of North Sea oil and gas in July 2023, meeting widespread backlash.[131] The approval of new oil and gas fields is being met with increasing resistance from civil society organizations[132] and others in the UK, including politicians[133], health leaders[134] and scientists.[135] Ending new oil and gas developments in the North Sea, a policy backed by the opposition Labour party, has broad popular appeal.[136]

In 2021, the UK adopted the "North Sea Transition Deal" and announced a "Climate Compatibility Checkpoint," mechanism to review whether future oil and gas licensing rounds would be compatible with the UK's climate objectives. Unfortunately, these policies failed to align with science and allow new oil and gas developments in the North Sea to continue.[137] Rather than committing to a fast and just phase-out and setting an end date for production, the 'Transition Deal' focuses on reducing upstream emissions from the production process and preserving the industry's social license to operate through unproven techno-fixes such as CCS and hydrogen. The 'checkpoint' also fails to consider downstream emissions from oil and gas. It enabled the UK's most recent (33rd) oil and gas licensing round to move forward, a decision currently under legal challenge.[138]

Propping up fossil fuels with public money:

The United Kingdom played a leadership role as the convener of the Glasgow Statement/Clean Energy Transition Partnership launched at COP26, through which 38 other countries and institutions pledged to end international public finance for fossil fuel projects.[139] However, this leadership is undermined by the UK's hypocrisy in its push to give North Sea oil and gas fields a "new lease of life."[140]

The UK government also gives generous domestic tax breaks to the oil and gas industry. For example, the windfall tax, introduced just last year, features a major loophole that allows companies to claim tax relief on investments, making oil and gas companies eligible for up to GBP 11 billion in tax relief.[141] Over the lifetime of the Rosebank oil field, Equinor and its partners will receive GBP 3.75 billion in tax relief.

BOX 1: THE UNITED ARAB EMIRATES - CAN A FOSSIL FUEL CHAMPION BE A CREDIBLE COP PRESIDENT?

Fossil fuels have been essential to the UAE's economy since the country was founded in 1971 and have turned it into one of the richest countries in the world. In recent years, the UAE has sought to project the image of a nation looking beyond oil revenues to become a diversified and modern economy and an influential player on the global stage. In what was perceived as a shift in the country's economic direction, then Crown Prince Sheikh Mohammed bin Zayed famously declared his country's economic diversification strategy would allow it to celebrate when the last barrel of oil was sold.[142]

Following its successful bid to host COP28, **the UAE appointed Sultan Al Jaber, the CEO of the Abu Dhabi National Oil Company (ADNOC), the 12th largest oil and gas producer in the world, as COP28 President. This creates an unprecedented risk of industry capture of the crucial climate negotiations at a time when nations urgently need to commit to phase out all fossil fuels.**

The UAE has been working to signal that it is acknowledging the escalating impacts of the climate crisis and to burnish its climate credentials on the global stage. The Masdar corporation has been a significant funder of renewable energy globally[143] and the UAE has stressed that 70% of the UAE's GDP comes from non-oil sectors[144]. The decision to host COP28 is a reflection of the country's desire to appear to be a climate leader on the global stage. Sultan Al Jaber recently acknowledged that the "phase down" of fossil fuels is "inevitable and essential."[145] The UAE was the first country from the Middle East and North Africa region to pledge to reach net zero emissions by 2050[146] and recently revised its Nationally Determined Contribution (NDC) to increase its emissions reduction objectives to 2030.

However, the contrast between the green rhetoric and the reality of the UAE's actions could not be starker. ADNOC, under Al Jaber's leadership, is poised to approve enough oil and gas expansion by 2025 alone to lock in 2.7 Gt of CO_2 emissions.[147] According to NGO Urgewald, 90% of planned expansion of oil and gas production by the UAE would have to remain in the ground in order to maintain a chance of limiting warming to 1.5°C.[148] While Sultan Al Jaber has described preservation of the 1.5°C limit as his top priority for COP28,[149] **the UAE is poised to be the seventh largest expander of oil and gas production by 2050** and is actively investing in ramping up offshore gas production. This increased oil and gas production will make it impossible for the country to meet its own emissions reductions strategy under the Paris Agreement, setting a poor example as COP28 President.[150] The UAE has also been a champion of deploying dangerous distractions such as Carbon Capture and Storage and Direct Air Capture, the oil and gas industry's favorite tools to convince global policymakers that a phase out of fossil fuel production is not needed.

The UAE has an opportunity to help deliver real climate leadership at COP28 that centers climate science and does not greenwash expanded oil and gas production. Will the UAE sideline the interests of its oil and gas industry to act as an honest broker for an ambitious outcome on fossil fuel phase out or will COP28 mark the final stage of the capture of global climate talks by the forces of delay and climate chaos?

BOX 2: JAPAN - A GAS ENABLER IN ASIA PEDDLING DANGEROUS DISTRACTIONS

While Japan is not a major oil or gas producer, it is one of the top fossil fuel financiers in the world. **Japan uses its diplomatic and financial weight to push fossil fuel expansion across Asia, often to the benefit of Japanese corporate interests in the oil and gas supply chain.[151]** Thus, Japan also deserves discussion as a Planet Wrecker.

Japan is the world's largest LNG importer as well as the largest funder of LNG export terminals. From 2012-2022, Japan spent nearly USD 40 billion to boost LNG exports.[152] As part of the G7, it has committed to end international public finance for fossil fuels and report on its progress by the end of 2023. However, soon after the commitment was adopted in 2022, Japan signaled that it intends to continue to finance oil and gas projects overseas despite its promise.

The country's current energy plan aims to decrease dependence on LNG from 37% of the energy mix (in fiscal year 2019) to 20% by the fiscal year 2030.[153] However, instead of stepping back from the gas market, the government's strategy revolves around the country remaining a dominant player in gas by cultivating demand in other Asian countries and encouraging Japanese companies to trade LNG, as well as to construct and operate LNG terminals and plants in the region.[154]

While pushing for gas expansion, Prime Minister Fumio Kishida emphasizes Japan's contribution to decarbonizing the region through the "Asia Zero Emissions Community (AZEC)."[155] AZEC is a Japan-led platform that stresses "the various and practical pathways"[156] for the energy transition, including fossil hydrogen, CCS, and burning ammonia at coal-fired power plants,[157] which all involve fossil fuels. The AZEC platform is a regional initiative the Japanese government uses to promote its "Green Transformation (GX)" policy, which purportedly aims to tackle energy security, decarbonization, and economic growth simultaneously.[158] Despite its name, the GX policy is an investment roadmap prioritizing Japanese corporate interests over alignment with the IPCC decarbonization timeline.[159] At the first AZEC Public Private Investment Forum held in March of this year, Japanese companies signed numerous memoranda of understanding with partners in Southeast Asia to develop fossil fuel-based technologies and to cooperate on LNG.[160]

In addition to creating demand for gas and technologies that rely on and prolong the use of fossil fuels in Asia, Prime Minister Kishida also works on the supply side. In May of this year, Kishida toured four African countries to deepen ties with the continent while encouraging Japanese companies to increase investment in LNG in Mozambique despite egregious impacts on local communities.[161] In July, Kishida traveled to the Middle East, offering Japan's technologies in ammonia and hydrogen to support Qatar, Saudi Arabia, and the UAE to diversify their fossil fuel-based economies.[162]

Despite Japan's push to expand the gas market and promote fossil fuel-based technologies as decarbonization measures in Asia, civil society groups across the region are standing up and rejecting Japan's fossil-fueled energy strategy. The "Don't Gas Asia" campaign launched in May of this year with actions in 13 cities across Asia, urging Japan and other financiers to stop financing fossil fuels and support renewable energy[163]

5. CONCLUSION

While the climate crisis is global in nature, this report shows that it is largely driven by the economic decisions of only a handful of nations. Despite very clear evidence that a continued increase in fossil fuel production and use is not compatible with a safe and stable climate, countries continue approving and investing in new fossil fuel infrastructure. In the words of UN Secretary General Antonio Guterres, one of the rare global leaders to establish a clear link between the climate crisis and fossil fuel expansion, this is "economic and moral madness."[164] Between now and 2050, just 20 countries are poised to lock-in the equivalent of the lifetime pollution of 1,100 new coal plants or 30 years of US emissions despite escalating climate impacts. These 20 countries could be responsible for 90% of the global CO_2 pollution coming from new oil and gas fields. Most egregiously, five global north Planet Wrecker countries with the greatest capacity and responsibility to lead in rapidly phasing out oil and gas extraction instead account for a majority of the expansion threat.

Should these new oil and gas fields open despite increasingly strident warnings from global energy and climate authorities, they would make it impossible to limit global heating to 1.5°C, a goal which all of these countries are legally committed to trying to achieve. The new oil and gas fields planned by these 20 countries would exacerbate an already dire situation. In this context, UN Secretary General Guterres' call for countries to immediately stop issuing new oil and gas exploration licenses and to stop approving new production is a reasonable, essential and urgent first step towards a fast and fair phase out of global fossil fuel production.

While every new drop of oil and gas extracted anywhere in the world jeopardizes a safe climate for all, the fact that only five wealthy countries (United States, Canada, Australia, Norway, and the United Kingdom) are planning to approve the majority of global CO_2 pollution from new oil and gas fields until 2050 is a striking reminder of the injustice at the heart of the climate crisis. These countries have the technical, financial, and the institutional resources to manage a phase out of fossil fuel production. Equity dictates that these countries accelerate their phase out pathways and pay their climate debt and their fair share of the global energy transition to Global South countries. This is an essential precondition for a fast and fair global phase out of fossil fuels. Instead, they choose the path of hypocrisy: claiming the mantle of climate leadership while undercutting global climate targets by promoting new oil and gas extraction which will exacerbate climate impacts on the most vulnerable populations of the world.

Amongst those, the United States has emerged as the Planet Wrecker in Chief, accounting for over a third of planned CO_2 pollution from new oil and gas fields. Despite renewed commitments and policies to reduce CO_2 emissions, the Biden administration continues to actively encourage or incentivize new oil and gas production and infrastructure and supports the deployment of risky techno-fixes such as CCS which align with the interests of the oil and gas industry.[165] Another notable player is the United Arab Emirates, the host of this year's COP28, which is amongst the largest expanders of oil and gas production in the world and has appointed the CEO of its national oil company to run the crucial climate talks while claiming to support the 1.5°C limit.

The oil and gas industry demonstrates time and again that it cannot be trusted to transition away from its fossil-centric business model. The communities and people on the frontlines of climate violence and destruction are rising to demand that their governments take action to manage a fast and fair phase out of fossil fuels, which implies:

- Heeding the call from the UN Secretary General to end new oil and gas licensing, stop approving new extraction projects, end domestic and international public finance for fossil fuels, and phase out fossil fuels at a pace consistent with limiting warming to 1.5°C.

- Wealthy producer governments in the global north must plan for the fastest phase-outs of production and hold oil and gas companies headquartered in their jurisdictions accountable for human rights violations, environmental damages, and just transition costs associated with their projects around the world.

- As part of wider climate reparations, governments in the global north must pay their climate debt by providing adequate funding for economic diversification in fossil-fuel dependent countries, canceling debt in the Global South, delivering on their climate finance pledge, and mobilizing funding for loss and damage support to vulnerable countries.

- Governments in all countries must shift domestic and international subsidies to support transformative solutions like distributed renewable energy to reach universal energy access, energy efficiency, and worker and community-led just transition plans in the most fossil fuel dependent regions.

People are demanding a fast and fair phase out of fossil fuels, universal clean energy access, a massive deployment of renewable energy and energy savings. Will governments listen to these demands or continue propping up the industry that is at the heart of the climate crisis? Will they listen to the growing chorus of scientific, religious, and political leaders calling for the end of the fossil fuel era?

METHODOLOGY

Rystad Energy's UCube database is OCI's primary source for data on projected oil and gas production by country and globally. The UCube is a commercial, asset-based database and model that contains data on reserves, production, economics, and valuation for every oil and gas field, resource discovery, and exploration license globally. Rystad uses company reports, regulatory information, and modeling to project the volumes of oil and gas that will be commercially viable to extract under a given price assumption. The projections used in this analysis are current to the July 2023 UCube update and Rystad's base oil price case as of July 2023, which sees the benchmark Brent oil price declining to around USD 35/bbl in 2030 before rebounding to a flat USD 60/bbl long term (all expressed in real $2023).

In this analysis, oil and gas expansion is defined as the development of new oil and gas fields and fracking wells that are not yet producing or under construction as of 2023. The reserves and resources in these projects are not yet committed to extraction through a final investment decision and/or still require permits or licenses from governments to enable their extraction. Countries are ranked according to the total volume of oil and gas production projected to come from new fields, fracking wells, and licenses from 2023 through 2050, and the CO_2 emissions that production would cause when burned. Oil volumes include all liquids: crude oil, natural gas liquids, and condensate.

All calculations of the CO_2 emissions that would result from burning the oil and gas produced from new fields and fracking wells from 2023 to 2050 are by Oil Change International. We apply CO_2 emissions factors of 0.421 tCO_2/bbl of oil and condensate, 0.235 tCO_2/bbl of natural gas liquids, and 54.7 tCO_2/Mmcf of gas to the oil and gas volumes taken from Rystad. These emissions factors are derived from the IPCC.[166]

Importantly, the CO_2 emissions estimates we present do not capture the full climate impact of expansion plans in each country. This is because we do not account for the significant warming effects of methane or other short-lived greenhouse gasses associated with oil and gas extraction, processing, and transport.

To compare the potential carbon emissions committed by oil and gas expansion to those of coal plants, we use data from Global Energy Monitor's Global Coal Plant Tracker. As of the January 2023 update, this database estimated 2,458 operating coal power stations globally emit 9,814 Mt CO_2 annually, which equals 3.99 Mt CO_2 per coal plant per year.[167] We assume an average 40-year plant lifetime, a historical lifetime commonly used by researchers estimating committed CO_2 emissions from power plants.[168] From these two data points, we estimate 159.6 Mt CO_2 as average global lifetime emissions per coal power plant.

Flare stack at oil refinery in Immingham, UK.

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Oil Change International
714 G Street SE, Suite 202
Washington, DC 20003
www.priceofoil.org

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