

## How to address fossil fuel production under the UNFCCC

### Key messages:

- The agreement to limit global average temperature increases to “well below 2°C” provides a strong rationale for Parties to the Paris Agreement and the UNFCCC to pursue a phase-down in fossil fuel production, not just consumption.
- A number of countries are already taking actions to limit fossil fuel supply. There is a need to enhance the visibility of these individual actions, and integrate them into the mechanisms and processes of the UNFCCC where possible, so that they form part of a broader global effort to transition away from fossil fuels.
- The Paris Agreement provides a number of opportunities for Parties and the UNFCCC to address fossil fuel production. That includes committing to fossil-fuel-related targets in NDCs and long-term strategies, as well as moving financial commitments away from the fossil fuel industry.

Burning fossil fuels produces the vast majority of carbon dioxide (CO<sub>2</sub>) emissions globally. Yet, the text of the most ambitious international climate agreement to date – the Paris Agreement – contains no mention of fossil fuels.

That omission can be understood as an effort to be equally inclusive of all sources of CO<sub>2</sub> and other greenhouse gases, as well as an accommodation of the concerns of major fossil fuel producing nations. But it may not be wise to continue with the omission of fossil fuels forever. Ultimately, meeting the goals of the Paris Agreement to keep warming “well below 2°C” and “pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels” will require a phase-down of coal, oil, and natural gas, both in consumption and production.

This policy brief, based on an SEI working paper, outlines why it is important for Parties to the Agreement to explicitly address the phase-down of fossil fuel production under the UNFCCC. It also describes how countries aiming to keep fossil fuel supply in line with the Paris goals could articulate and report their actions within the current architecture of the Agreement, and it outlines how the UNFCCC could foster such actions.

### Why is it important to address fossil fuel supply through the UNFCCC?

The UNFCCC is the main process for negotiating the international response to climate change. If it is silent on fossil fuels, it becomes easier for governments, industries, and other actors to remain vague about plans to phase down fossil-fuel production and fossil-derived CO<sub>2</sub>.

Some countries have already recognized the need to phase-down fossil fuel production to reach Paris Agreement goals, and have taken steps in that direction. For example, India



Coal miners in Meghalaya State, India. The National Green Tribunal imposed a ban on mining in the region in 2014.

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taxes coal production, China has been shuttering outdated coal mines, and Costa Rica has placed a moratorium on oil exploration and extraction.

These actions are symbolically important, signaling a readiness to move away from a fossil-fueled economy. Actions like these can also have a tangible impact on CO<sub>2</sub> emissions, as they complement existing climate change mitigation strategies and reduce the cost of attaining specific climate targets at a national level. Actions to restrict fossil fuel production will be most effective if they are done in tandem with other nations, as part of a global climate change mitigation strategy. For this reason, nations should consider pursuing such actions as part of their commitments to the UNFCCC under the Paris Agreement.

Publicly communicating and recognizing Parties’ actions on fossil fuels at the international level serves several purposes. It forces countries to make concrete commitments, which can be used to debate whether planned actions are fair and ambitious, and to identify where there may be a need for financial, technological, and capacity-building support. Addressing fossil fuel supply through the UNFCCC also clarifies and strengthens signals to financial markets that countries are committed to scaling back investment in fossil fuels. Furthermore, explicitly discussing a fossil fuel phase-down in the UNFCCC can help to normalize the idea that transitioning away from fossil fuel extraction and supply is a necessary part of climate policy.

### How could fossil fuels be addressed under the Paris Agreement?

The Paris Agreement has several elements through which the need to limit fossil fuel supply can be addressed. These include both formal commitments and reporting requirements, as well as actions that could be taken by the Parties and the UNFCCC Secretariat in response to specific provisions in the Paris Agreement. We outline here some key actions that Parties and the UNFCCC could take.

**Table 1: Inclusion of fossil fuel supply in NDCs for the ten largest fossil fuel producers**

Country	2014 CO <sub>2</sub> emissions profile (million tonnes CO <sub>2</sub> )		Fossil fuel extraction explicitly discussed in NDC?	Context in which fossil fuel extraction is discussed in the NDC			
	Territorial emissions (emissions from domestic consumption of fossil fuels)	Extraction-based emissions (emissions that will be generated downstream from extracted fossil fuels)		Policies limiting fossil fuel supply	The need for economic diversification	Impacts of climate change mitigation response measures on the economy	Other statements (e.g. dependence on fossil fuels, or improved efficiency in fossil fuel production)
China	9135	8095	✓				•
USA	5176	4848	✓				•
Russia	1468	3261					
Saudi Arabia	507	1639	✓		•	•	•
Indonesia	437	1358					
Australia	374	1294					
India	2020	1228	✓	•			•
Canada	555	1017	✓				•
Iran	556	825	✓			•	•
Qatar	78	558	✓		•	•	•

Source: Compiled by the authors. For full details, including excerpts of the text from NDCs, see full Working Paper.

### 1) Parties can include targets and actions related to fossil fuel supply in their Nationally Determined Contributions (NDCs)

Article 4 of the Paris Agreement calls for countries to communicate their commitments to reducing emissions through NDCs every five years. There is a good deal of flexibility in the scope and content of NDCs. At present, fossil fuel supply is not a central focus of most NDCs, though some countries do communicate measures that would constrain fossil fuel development. For example, India includes discussion of its coal cess (tax) on extracted and imported coal. However, this is the exception rather than the norm. An examination of NDCs from the top ten fossil-fuel-producing nations (Table 1) reveals that for the most part, countries discuss fossil fuel extraction in terms of the impacts of climate change mitigation measures on fossil-fuel-dependent economies, or future plans to make the industry greener or more efficient.

Nations could embed supply-side strategies in their NDCs in a number of ways. Alongside their emissions reduction targets, nations could include targets for a fossil fuel production phase-down. In addition, countries could include commitments to constrain investment in fossil fuel supply, such as by pledging to remove subsidies to fossil fuel producers. Among mitigation activities, Parties could also include measures such as moratoria on new fossil fuel infrastructure or taxes on fossil fuel exports. Nations could also specify policy measures to ensure a just transition for extractive-industry workers, such as job-retraining programs.

The hypothetical example below illustrates what targets and commitments that address fossil fuel supply – and complement emissions reduction goals – might look like in an NDC.

### 2) Parties can plan for a phase-down of fossil fuels in their long-term low greenhouse gas emission development strategies (LTSS)

Article 4 of the Paris Agreement also calls on Parties to “formulate and communicate long-term low greenhouse gas emission development strategies”. The development of LTSS is not a binding requirement, and there are no terms of reference for their content. The intention is that nations develop plans for decarbonizing their economy by 2050, to provide an overarching framework for shorter-term NDCs. The process of LTS development provides an ideal opportunity for nations to plot out a managed decline in fossil fuels. Nations can incorporate trajectories for fossil fuel production and investment in their LTSS that are consistent with 2°C/1.5°C goals. This could involve identifying what types of infrastructure development are consistent with a planned phase-down of fossil fuels, as well as developing strategies for transitioning workers in the industry to new roles in the economy.

### 3) The UNFCCC can track progress towards a phase-down of fossil fuels through the global stocktake

Article 14 of the Paris Agreement calls for a “global stocktake”, which will assess “collective progress towards achieving the purpose of [the] Agreement and its long-term goals”. The process of tracking the alignment of national efforts with



## Hypothetical Enhancement to an NDC to Address Fossil Fuel Supply

- In addition to its greenhouse gas emission reduction targets, the country commits to a phase-down of fossil fuel production. Coal production will be reduced by 25% by 2025 from 2005 levels, oil production will be reduced by 20%, and gas production will be reduced by 10%.
- These production targets are fair and ambitious, and are consistent with our commitment to reduce economy-wide greenhouse gas emissions. The targets are consistent with a long-term goal of keeping warming “well below 2°C”, while also leaving a substantial portion of the world’s remaining carbon budget for other countries to utilize.
- The following domestic policies and measures will be adopted: A moratorium on further permits, concessions or leases for fossil fuel production on lands and waters owned by the government; removal of subsidies for fossil fuel exploration and production; a new tax on fossil fuel production, with a fraction of proceeds devoted to enabling a fair, orderly transition among affected communities; and new requirements in environmental review processes to ensure that new fossil fuel supply infrastructure is consistent with the temperature goals of the Paris Agreement.

global long-term goals begins with a facilitative dialogue in 2018. It will continue with a global stocktake that starts in 2023 and is held every five years thereafter. The global stocktake could include tracking fossil fuel extraction as one set of actions that work towards a 1.5°C or 2°C goal, which would help illuminate which fossil fuel reserves could be utilized in the future while still meeting Paris Agreement goals. Information for a stocktake of a fossil fuel phase-down could come directly from Parties, through scientific assessments like the IPCC’s Assessment Reports, or from non-state actors tracking progress made towards national commitments.

#### 4) The UNFCCC could help Parties by providing technical and capacity-building support for a fossil fuel phase-down

It has long been recognized within the UNFCCC that some nations lack the capacity needed to implement effective climate strategies. For this reason, Article 11 of the Paris

Agreement calls for strengthened capacity building to take action on climate change. Parties and the UNFCCC Secretariat could help ensure that ongoing and new capacity-building efforts – such as through the Paris Committee on Capacity Building – address the links between fossil fuel supply and climate goals, as well as provide tools and support for nations transitioning away from fossil fuel extraction. Technical and institutional capacity could be developed by assessing the emissions implications of restricting fossil fuel supply, evaluating whether proposed fossil fuel infrastructure is consistent with climate goals, estimating fossil fuel subsidies and their impacts on emissions, designing fossil fuel subsidy reform, and planning workforce transitions.

#### 5) Parties and funders can limit investment in fossil fuel infrastructure

One of the headline goals of the Paris Agreement is to make “finance flows consistent with a pathway towards low green-



The Paris Agreement has a goal to keep warming “well below” 2 degrees Celsius, but it does not explicitly address fossil fuel production.

## Policy recommendations:

- All actors involved in the UNFCCC process should consider how they can embed actions towards a global phase-down of fossil fuel production into relevant elements of the Paris Agreement.
- Individual countries could include targets focused on limiting fossil fuel supply in their Nationally Determined Contributions (NDCs), and could outline a plan for a managed decline in fossil fuel production by 2050 in their long-term low greenhouse gas emission development strategies (LTSs).
- Parties should consider tracking progress towards a phase-down of fossil fuels in the design of the global stocktake.
- The Paris Committee on Capacity Building should consider Parties' access to the technical and capacity-building support needed for planning a transition away from fossil fuels.
- Parties and other funding entities should refrain from investing in fossil fuel infrastructure.
- Developed countries can provide financial and technical support to developing countries to aid in the transition away from fossil fuel extraction.

house gas emissions and climate-resilient development". Bringing finance flows in line with this transition requires not just more "green" finance, but also moving rapidly away from "brown" finance, such as by removing fossil fuel subsidies and, more generally, reducing investment in fossil fuel infrastructure. This can be furthered in the UNFCCC (or in another forum) by a global agreement to phase down fossil fuel subsidies, or through a commitment to exclude fossil fuel infrastructure from eligibility for climate finance. Parties can also make individual commitments in their NDCs to phase out public financing for fossil fuel infrastructure.

### 6) Developed countries can provide support for developing countries to shift away from fossil fuel extraction

The Paris Agreement states that developed country Parties need to provide assistance to developing countries to mitigate and adapt to climate change. Support can come in the form of financial resources, technology, and expertise. This support could include resources to transition economies away from fossil fuel extraction. For instance, development agencies could shift funding from fossil fuel investments to alternative energy, or "just transitions" funds could be established to assist nations who wish to retrain workers in fossil-fuel-dependent communities. Technical expertise could also be provided to help plan for a phase-out of fossil fuel production. Expanding the scope of supported activities to include mitigation efforts focused on fossil fuel supply is necessary to help nations develop in an appropriate manner for a climate-constrained future.

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## Multiple avenues exist for addressing fossil fuel supply in the Paris Agreement

In addition to these suggested actions, there are several other ways that the UNFCCC can help countries plan for a managed phase-down of fossil fuel production. For example, the UNFCCC could provide support and recognition for non-state actors who are working to constrain fossil fuel supply, or it could create guidelines for accounting for fossil fuel extraction. We outline these ideas further in our Working Paper. Such actions can strengthen the role of the UNFCCC in phasing down fossil fuel production, and make clear that such a phase-down is needed to meet the Paris Agreement's goals.

### Published by:

Stockholm Environment Institute  
1402 Third Avenue, Suite 900  
Seattle, WA 98101  
USA  
Tel: +1 206 547 4000

### Author contacts:

Georgia Piggot,  
[georgia.piggot@sei-international.org](mailto:georgia.piggot@sei-international.org)  
Peter Erickson,  
[pete.erickson@sei-international.org](mailto:pete.erickson@sei-international.org)

### Media contact:

Emily Yehle,  
[emily.yehle@sei-international.org](mailto:emily.yehle@sei-international.org)

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Twitter: @SEIresearch, @SEIclimate