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Aligning fossil fuel production with the Paris Agreement

Insights for the UNFCCC Talanoa Dialogue

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Throughout 2018, the Talanoa Dialogue will prompt countries to take stock of their progress towards the goals of the Paris Agreement and map a more ambitious pathway forward. This brief focuses on how fossil fuel production fits into that process, using the three guiding questions of the Talanoa Dialogue: **Where are we? Where do we want to go?** and **How do we get there?** In answering these questions, we explain the rationale for considering fossil fuel supply under the Talanoa Dialogue, and highlight available policy options that address this vital piece of the climate puzzle. We also outline concrete steps that Parties and bodies of the UN Framework Convention on Climate Change (UNFCCC) can take to ensure that fossil fuel production is addressed as part of an ambitious and holistic post-Paris climate strategy.

Key messages

- **The 2018 Talanoa Dialogue is a crucial opportunity to increase climate mitigation ambition and effectiveness by putting fossil fuel supply on the international climate agenda.**
- **Managing a decline in global fossil fuel production is essential to meeting the Paris Agreement's 1.5-2°C temperature limits.**
- **Policies that restrict the supply of fossil fuels – as a complement to those that limit their demand – can lead to greater mitigation potential, cost-effectiveness, benefits to health and the local environment, enhanced popular support for climate action, and reduced carbon lock-in.**
- **Supply-side policies are gaining ground globally, from moratoria on new production exploration licenses, to divestment from fossil fuel holdings, to transition plans for workers. But much work remains to be done.**
- **Parties should plan the transition away from fossil fuel production to ensure that it is well managed, just and equitable. To this end, NDCs and long-term strategies provide a platform to set and discuss targets and policies.**
- **The UNFCCC process can play a key role in raising the profile of supply-side policies and empowering Parties and non-Party stakeholders to take action in support of effective policies.**

Introduction

It is well understood that meeting the goals of the 2015 Paris Agreement will require a swift and dramatic reduction in the use of fossil fuels, barring unexpected advances in carbon capture and storage.[1,2,3] While many Parties are making important strides towards achieving their nationally determined contributions (NDCs), it is also widely recognized that the gap between expected global emissions levels and agreed emission reduction targets remains far too wide.[4,5] Less appreciated, however, is the corresponding gap that exists for fossil fuel production — namely, that countries' plans and actions to expand the extraction of coal, oil, and gas far exceed the limits of a 1.5-2°C carbon budget.

Increasingly, non-Party stakeholders, as well as some Parties, are realizing that managing the decline in fossil fuel supply can yield multiple benefits. Limiting the expansion of coal, oil, and gas production can reduce emissions, complement policies aimed at constraining fossil fuel use, and deliver other social and environmental improvements.[6,7,8] This approach, however, must come with measures that address the equity implications. Some nations and communities are dependent upon

IMAGE (ABOVE): © FLICKR / YANN CARADEC

fossil fuel extraction; international and domestic support is thus essential to help them diversify their economies and develop alternative livelihoods, and to ensure that the transition is just, equitable, and politically viable.[9]

These considerations and others will be critical in aligning fossil fuel development with the Paris Agreement. In the spirit of Talanoa — a Pacific Island concept of inclusive, participatory and transparent dialogue — this brief tells the story, in summary form, of how these insights have emerged and how they can guide future action.

Where are we?

In the early 1990s, researchers first observed that a 2°C limit on warming would mean that only a fraction of global coal, oil, and gas reserves could ever be exploited.[10] For the following two decades, climate negotiators and policy-makers focused on curtailing the use, but not the supply, of fossil fuels. Indeed, the exclusive emphasis on addressing the use of fossil fuels had its rationale: low-carbon alternatives were still hampered by cost, maturity, and other barriers, and climate policy mechanisms were still untested. Therefore, together with many others in the climate policy community, SEI worked to support the design and implementation of policy frameworks and mechanisms aimed at reducing demand for fossil fuels, such as the Kyoto Protocol, Paris Agreement, Clean Development Mechanism (CDM), emissions trading systems and carbon pricing measures. We developed long-range planning tools and scenarios to provide roadmaps to a low-emissions future. But these plans and policies neglected a major obstacle along that path: the social, political, institutional, and economic lock-in of ongoing investment in fossil fuel extraction and delivery, which more than tripled between 2000 and 2014, and remains the largest share of world energy investment.[11] Today, the world's major economies continue to subsidize investment in fossil fuel exploration and extraction on the order of USD 18-70 billion per year.[6,12]

We are now at a turning point where policy-makers and civil society are realizing that managing the transition away from fossil fuels is an essential element of achieving climate goals.

In recent years, researchers, investors and policy-makers have begun to recognize the risks posed by this support and investment. In 2011, the Carbon Tracker Initiative drew attention to the linked concepts of unburnable carbon and stranded assets – that some fossil resources counted on by companies and countries could not be used under a 2°C scenario.[13] In 2013, Fatih Birol, then the International Energy Agency's (IEA) chief economist, noted that two-thirds of proven fossil fuel reserves will have to be left unburned.[14] That same year, Ángel Gurría, the Secretary-General of the Organisation for Economic Co-operation and Development (OECD), described how the "carbon entanglement" of fossil fuel investment and government revenue dependence stands in the way of climate progress.[15] National leaders began to take stock. Indeed, in 2015, former U.S. President Barack Obama rejected the Keystone XL pipeline on the grounds that to address climate change "we're going to have to keep some fossil fuels in the ground rather than burn them".[16] And in 2017, Fijian Prime Minister Frank Bainimarama, the COP 23 President, stated that the 1.5°C target "means shifting away from fossil fuels altogether".[17]

We are now at a turning point where policy-makers and civil society are realizing that managing the transition away from fossil fuels is an essential element of achieving climate goals. The call for the UNFCCC process and Parties to more explicitly address fossil fuel supply is growing. Approximately 500 non-governmental organizations have signed the Lofoten Declaration, which highlights the need to put an end to fossil fuel development and manage the decline of existing production.[18] Leaders from Pacific Island governments, the private sector and civil society included an "international moratorium on the development and expansion of fossil fuel extracting industries" in their Suva Declaration.[19] And, in their closing statement at COP 23, the world's 47 least developed countries requested that the Talanoa Dialogue include "managing a phase out of fossil fuels."[20] In support of these appeals, and following the request that the Dialogue be "solutions-oriented", this brief provides concrete suggestions for how the UNFCCC and Parties can plan for a transition away from fossil fuels extraction, and track whether progress aligns with Paris Agreement goals.

Where do we want to go?

The Paris Agreement's key mitigation goals are to limit global average temperature rise to well below 2°C above pre-industrial levels, and to pursue efforts to limit this temperature increase to 1.5°C. The Agreement furthermore recognizes the need to achieve net-zero emissions by the second half of this century. Curtailing fossil fuel supply is an essential part of achieving this vision.

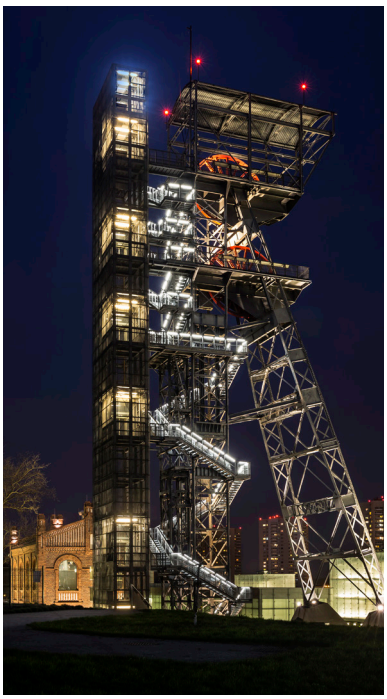
There are several important reasons why it makes sense to pursue "supply-side" policies that limit extraction and delivery of fossil fuels, as a complement to more traditional "demand-side" policies that aim to limit their use. Adding supply-side policies to the overall climate policy mix can help achieve emissions reductions more cost-effectively than through demand-side policies alone.[7] For instance, reduced investment and production in Norwegian oil fields could more than halve the country's cost of achieving its 2020 emission reduction target.[21] Policies focused on production can also help compensate for the "green paradox" – the phenomenon whereby fossil fuel producers are incentivized to accelerate production in the near-term in the face of increasingly stringent demand-side policies.[22,23] Lastly, such policies help limit lock-in to fossil-fueled development pathways that threaten to put the Paris climate goals out of reach.[24]

Our current fossil fuel production trajectory will lead to greenhouse gas emissions that would take us far beyond internationally agreed temperature limits.[2,3] Therefore, existing and planned fossil fuel production will need to be phased out rapidly. This will inevitably affect those who rely on fossil fuel extraction for their livelihood, and those who were anticipating using fossil fuel revenues or energy to meet development needs.[25] To maximize benefits and limit transition costs, policy-makers, businesses and communities need to begin planning for the inevitable today, and set aside funding and support to ensure a "just transition."[8] Failure to do so would require a much more drastic, costly and socially disruptive transition from fossil fuel production further down the line. By contrast, a managed decline in fossil fuel production can ensure any hardships are minimized and, through careful planning, can lead to more high-quality and secure jobs.[26]

A managed decline in fossil fuel production can also bring other important benefits. Policies addressing fossil fuel supply may have a range of positive knock-on effects, including for human health and the local environment.[6] Such policies can be cost-effective to administer because they target a small number of entities (just fossil fuel producers).[27,28] Some supply-focused policies – such as fossil fuel subsidy reform – may also bring social and economic benefits, including through the reinvestment of added tax revenues from fossil fuel production,[29] especially if directed towards meeting sustainable development goals.[30] An emphasis on fossil fuel supply may also help galvanize public support for climate action, as people can more easily grasp the influence of policies focused on tangible fuels than those focused on emissions.[25,28,31]

Policy approaches that curtail fossil fuel supply are starting to take hold. Recent examples include bans on oil exploration in Costa Rica, France and Belize;[32,33,34] the shuttering of outdated coal mines in China; and increased taxation of coal production in India.[36] Some countries have also enacted policies to help workers and communities adjust to a shift away from fossil fuels. China, for instance, allocated USD 5 billion to help with the closure of small coal mines and redeploy 1 million workers,[37] and Canada has announced plans for a new "just transition" task force to aid those affected by the closure of the coal industry.[38] Likewise, Scotland is in the process of establishing a "just transition" commission as part of its climate change plan.[39]

In addition to actions by national governments, non-Party stakeholders can play an important part in addressing the supply side of fossil fuels. A recent example is the World Bank's announcement to end its financing of upstream oil and gas after 2019.[40] Further, momentum is building at the subnational level; for example, the US State of California has resolved to study "supply side" climate policy and is considering taking "strategic action on supply."[41,42] Moreover, non-Party stakeholders have been instrumental in driving divestment from fossil fuel production – the value of institutional commitments to sell off fossil fuel assets currently amounts to USD 6 trillion, including commitments from major financial players such as the city of New York.[43] Non-Party stakeholders can also provide support for the transition, as evidenced by the Just Transition Fund set up by



This elevator from a former coal mine has been converted into an observation tower in Katowice, Poland (the next UNFCCC COP host city)

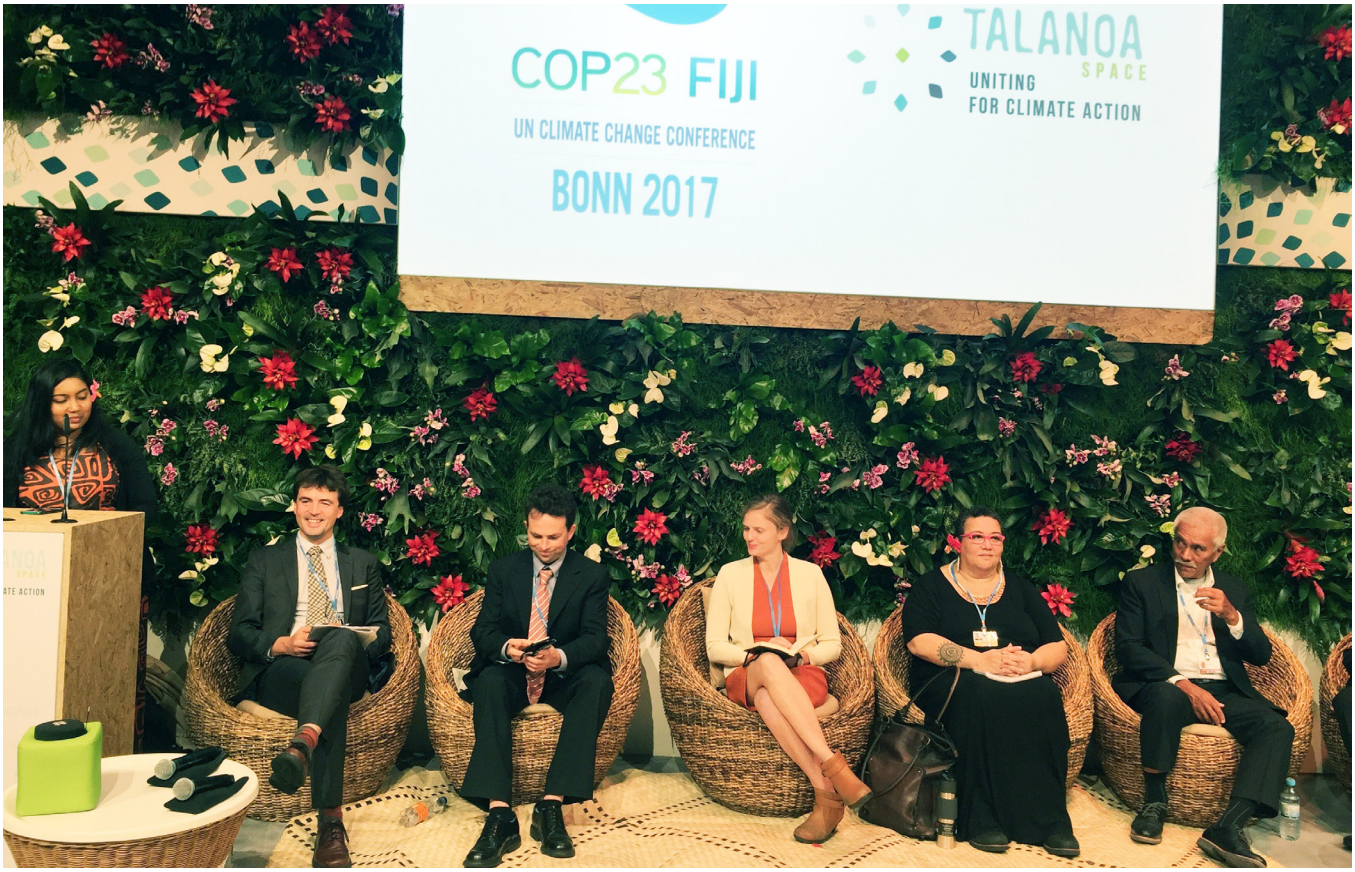
several philanthropic foundations, which supports grassroots organizations and trade unions in securing a just transition in the US Appalachian region.[44]

These policies and actions represent a growing momentum to phase down fossil fuel production, and to do so in an equitable way. However, to meet the Paris Agreement's temperature goals, existing efforts need to be replicated and scaled up in the near future.

How do we get there?

As with action on the demand side, efforts to implement supply-side climate policies will be more efficient, effective, and enduring if pursued collaboratively across nations. In this final section, we look at the steps that Parties, UNFCCC bodies, and other actors can take to support a more globally coordinated, managed decline of fossil fuel production.

The Paris Agreement and its related decisions offer a range of tools that allow countries to communicate their efforts to phase down fossil fuel supply. The next round of NDCs (to be communicated by 2020) provides an opportunity for countries to include targets to limit fossil fuel supply alongside enhanced targets to reduce emissions. Parties can specify the policies that will support these targets, such as fossil fuel subsidy reform, moratoria on new exploration, and transition plans for fossil fuel dependent workers and communities. Parties can also map out a managed decline in fossil fuel production through their long-term low greenhouse gas emissions development strategies (which the Paris Agreement invites them to submit by 2020). Addressing fossil fuel production explicitly through NDCs and long-term strategies would enable discussion about the extent to which supply-side targets and policies are fair and ambitious. It would also highlight where capacity building and other forms of support may be needed to support economic diversification and a just transition. Additionally, it could provide an important signal to markets,



SEI Scientist Peter Erickson speaks at the COP 23 Pacific Talanoa on keeping fossil fuels in the ground © BERIT KRISTOFFERSEN

which could in turn reduce the risk of stranded fossil fuel assets and shift investment towards low-carbon technologies and infrastructure.

Through the Paris Agreement's envisaged five-yearly global stocktake, the UNFCCC Secretariat – supported by Parties, the Intergovernmental Panel on Climate Change, and non-Party stakeholders – could track whether national efforts to manage the decline in fossil fuel production align with agreed goals. For example, the adoption of a simple extraction-based accounting system – in parallel with existing territorial greenhouse gas emissions accounting[4][5] – could help track countries' production levels and associated emissions. International agencies such as the UN Environment Programme could also regularly release an analysis (akin to the existing Emissions Gap Report)[4] that would identify whether countries' aggregate production phase-down targets and policies align with the 1.5-2°C warming limit.

Moving towards a managed decline in fossil fuel production will require international support. Developed countries and financing institutions could direct and track support to developing countries that facilitates a transition away from fossil fuels. Likewise, the Paris Committee on Capacity-Building could expand its current technical and capacity-building efforts to include tools and support for supply-focused actions. For large fossil-fuel-producing nations, the UNFCCC's forum on the "impact of the implementation of response measures" offers a platform – specifically in the economic diversification and just transition tracks – to discuss challenges involved in the transition away from fossil fuel production, and how to ensure it proceeds in an equitable fashion.

Finally, the participation of non-Party stakeholders is another key avenue for expediting the transition to a low-carbon economy. Parties – with the support of the Secretariat – could more explicitly encourage environmentally and socially sound actions by non-Party stakeholders to address coal, oil, and gas production. For instance, Parties could identify how subnational efforts to phase down fossil fuel production feed into national transition plans. The many steps that non-Party stakeholders are already taking on fossil fuel supply could also feature more prominently in registries, events and documents promoting non-state action (e.g. the Marrakech Partnership, the Yearbook on Global Climate Action, and the Non-state Actor Zone for Climate Action (NAZCA) database).

Conclusion

Until recently, managing the decline of fossil fuel production has received limited attention among strategies to achieve the international community's climate change objectives. However, meeting the Paris Agreement's temperature targets will require tackling both fossil fuel consumption and fossil fuel production. The 2018 Talanoa Dialogue provides a unique opportunity for stakeholders to discuss policies, strategies and platforms to plan for a just transition, one that brings fossil fuel production in line with the goals set in Paris, and ensures decisions are made for the collective good.

This policy brief is based on the following papers produced by the SEI Initiative on Fossil Fuels and Climate Change: Addressing Fossil Fuel Production Under the UNFCCC: Paris and Beyond; Seizing the Opportunity: Tackling Fossil Fuel Subsidies Under the UNFCCC; and Supply-Side Climate Policy: The Road Less Taken. The authors wish to acknowledge the support provided by the KR Foundation, the Swedish International Development Cooperation Agency, and the Swedish Research Council Formas.

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