

Building back better through climate plans

How NDCs and LT-LEDS can address fossil
fuel production and support a just and
sustainable recovery



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Key messages

- The confluence of COVID-19 economic recovery planning with the submission of updated nationally determined contributions (NDCs) and long-term low emissions development strategies (LT-LEDS) under the Paris Agreement presents a unique opportunity to “build back better” and align countries’ climate and economic recovery plans with the goal of decarbonising the global economy by mid-century.
- Fossil fuel-producing countries need to include measures in their recovery plans, NDCs and LT-LEDS to support a wind-down of production and a shift to green energy, including a “just transition” for workers, communities and others who now depend on fossil fuel production.
- Six types of information would be particularly valuable to include in NDCs and LT-LEDS: on fossil fuel reserves and current and projected extraction; pathways and targets for aligning fossil fuel production with the Paris Agreement goals; policy measures to manage a wind-down of fossil fuel production; just transition and economic diversification plans; interventions to reduce production-related emissions; and equity considerations.

Introduction

The COVID-19 pandemic led oil demand and prices to plummet, with prices falling below zero for the first time in history in April 2020 (Domonoske 2020). Similarly, demand for coal saw its largest worldwide decline since the Second World War (IEA 2020b). Carbon emissions declined as well – but soon began to rebound (Harvey 2020a).

Some have raised concerns that without transformative “green recovery” measures, policy choices made during the crisis will put some countries on even higher-emissions pathways (see, e.g., Le Quéré et al. 2020). Deliberate efforts are essential for avoiding “carbon lock-in”, in which long-lived, carbon-intensive infrastructure “locks out” lower-carbon alternatives (Erickson et al. 2015).

Given that fossil fuels account for more than three-quarters of global greenhouse gas (GHG) emissions and nearly 90% of all carbon dioxide emissions (SEI et al. 2019), winding down fossil fuel production is a crucial part of meeting Paris Agreement goals. Meanwhile, COVID-19 recovery assessments suggest that public investments in low-carbon energy and infrastructure can better support economic growth and job creation than investments in fossil fuels and related infrastructure (Climate Action Tracker 2020; Hepburn et al. 2020; IEA 2020d).

IMAGE (ABOVE):
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At present, however, there is a significant misalignment between governments' energy production plans and climate goals. The 2019 *Production Gap Report* found that governments were planning to extract 60% more oil, 70% more gas and 280% more coal by 2030 than would be consistent with a 1.5°C pathway (SEI et al. 2019). In addition, governments continue to support the exploration, extraction and delivery of fossil fuels through subsidies and other forms of public finance.

While fossil fuel production dropped significantly in 2020 as a result of lockdown measures to slow the spread of the coronavirus (IEA 2020c), there is a risk that the production of fossil fuels may rebound to pre-pandemic levels or higher if governments revert to their pre-COVID-19 fossil fuel production plans and projections in their efforts to rebuild from the pandemic (SEI, IISD, ODI, E3G, and UNEP, forthcoming).

Transforming energy systems requires careful planning and cooperation across multiple sectors. Two ongoing processes under the Paris Agreement can facilitate this: countries are currently submitting updates to their nationally determined contributions (NDCs), as well as long-term low greenhouse gas emission development strategies (LT-LEDS). These documents are important tools for governments to communicate their medium term (5–10 year) and long-term (mid-century) plans to address the climate crisis to the international community.

The current confluence of COVID-19 recovery plans, NDC updates and development of LT-LEDS presents a unique opportunity to “build back better” from the pandemic. In this brief, we explain how countries can utilise their NDCs and LT-LEDS to promote measures that support a just and equitable transition away from fossil fuel production.

Why we need to address fossil fuel production in climate and economic recovery plans

Despite many calls around the world for a green COVID-19 recovery (IEA 2020a; Guterres 2020), several countries are moving towards carbon-intensive recoveries instead, announcing plans, stimulus packages and investments to boost their economies that also support fossil fuel industries (Vivid Economics 2020; Energy Policy Tracker 2020).

For example, the U.S. government included support for at least 90 fossil fuel companies as part of its rescue package for the pandemic (Harvey 2020b). Similarly, the Canadian province of Alberta recently committed to investing a further US\$1.1 billion in the Keystone XL pipeline (Lewis 2020). India launched an auction for 41 coal blocks for commercial mining and announced plans to gasify 100 million tonnes of coal by 2030 in an attempt to promote energy self-sufficiency in the aftermath of the pandemic (The Times of India 2020). In Norway, the parliament granted tax breaks to the oil industry to shield it from COVID-19 impacts and make the industry more profitable (Adomaitis and Solsvik 2020). Rather than “building back better”, such government interventions in support of the fossil fuel industry risk further widening the fossil fuel production gap.

More climate-compatible recovery measures are also being adopted. Several jurisdictions, including Canada, China, the EU, France, Germany, the Republic of Korea and the UK, have proposed or are designing COVID-19 recovery packages that contain elements of support for climate goals, including measures that promote green mobility, energy efficiency, and clean energy (Energy Policy Tracker 2020). As part of its COVID-19 recovery support, the government of Canada has committed \$1.7 billion CAD (about US\$1.28 billion) to clean up orphaned and abandoned oil and gas wells and reduce methane emissions (Anderson 2020). Subsidies for fossil fuel consumption are expected to drop this year, as countries take advantage of low oil prices to reform some of these

measures (OECD 2020a). And countries such as India and Costa Rica have increased taxes on oil and gas consumption to mobilise funds for the COVID-19 crisis response (IANS 2020; Asamblea Legislativa República de Costa Rica 2020).

Some countries have also introduced legislation to limit fossil fuel production. In the midst of the pandemic, Spain proposed a draft law banning all new coal, oil and gas extraction projects and ending fossil fuel subsidies (Hill 2020). Ireland has proposed a ban on offshore oil and gas drilling (Katona 2020). Such measures were already being implemented prior to COVID-19, with countries such as Belize, Costa Rica, Denmark, France and New Zealand passing bans or moratoria on certain forms of fossil fuel exploration (Figure 1; see also SEI et al. 2019).

NDCs and LT-LEDS can be a vehicle for these countries to highlight measures they are already implementing to curb fossil fuel extraction, and an opportunity to ensure that they are consistent with their carbon reduction targets. Along with avoiding carbon lock-in, limiting fossil fuel production can increase the competitiveness of alternative, non-fossil energy sources, thereby creating further emission reduction benefits (Erickson and Lazarus 2014).

Planning for alignment of the fossil industry with Paris goals now can also avoid costlier and more disruptive future transitions for fossil fuel dependent workers, communities, regions, investors and others at risk of stranded assets (UNU-INRA 2019). The box below highlights how countries can ensure that their recovery plans incorporate and are aligned with a just and equitable wind-down of fossil fuels. This can serve as a basis for countries to reiterate these measures in their international climate plans.

ALIGNING COVID-19 RECOVERY MEASURES WITH A JUST AND EQUITABLE TRANSITION FROM FOSSIL FUELS

In a July 2020 address, UN Climate Change Executive Secretary Patricia Espinosa called for a climate-resilient recovery from COVID-19, using governments' economic financial support packages as a window of opportunity to reduce emissions and build resilience (UNFCCC 2020). In keeping with this call, there are several ways to start winding down fossil fuel production as part of pandemic recovery plans:

- Incorporate measures to diversify economies away from fossil fuel dependent sectors, including through green job creation (OECD 2020b).
- Reform fossil fuel subsidies and redirect financial flows towards greener investments, including investments in renewable energy sources (IISD 2019; The Economist 2020).
- Make any support for fossil fuel companies conditional on requirements to reduce carbon emissions and diversify their activities (Joselow 2020).
- Provide national and international support for fossil fuel-dependent communities to diversify their economies away from fossil fuels through inclusive planning processes.

Using NDCs and LT-LEDS to plan for a transition away from fossil fuel production

NDCs and LT-LEDS are complementary documents through which countries can communicate and enhance mitigation ambition over time. The Paris Agreement requires Parties to prepare and communicate NDCs every five years; it also calls on them to formulate long-term low emission development strategies (LT-LEDS) with a view to achieving carbon neutrality.

NDCs include countries' national targets, policies and actions to reduce emissions over a five- to ten-year period. Although NDCs are designed to communicate a country's intended climate actions internationally, they also serve as important policy tools within countries, closely linked with national climate and development plans. Including measures to address fossil fuel production in NDCs would thus help set new norms at both the national and international level to incorporate a wind-down of fossil fuels into countries' decarbonisation strategies.

The LT-LEDS that countries are expected to submit focus on laying out decarbonisation pathways to mid-century. The idea is to take a longer-term view that can then inform short- and medium-term action and planning, to help countries ensure that the economic, social and political measures they are adopting are consistent with the transformation needed by mid-century.

Given that infrastructure built in the next few years will last for decades, it is crucial to directly address fossil fuel production in LT-LEDS, to ensure that near- and medium-term investments are consistent with the Paris Agreement's temperature limits (SEI et al. 2019).

However, a 2019 analysis of 57 first-round NDCs and eight LT-LEDS of fossil fuel-producing countries (Verkuijl et al. 2019) found few commitments to wind down production. A third did not mention fossil fuel production at all, and only two fossil fuel-producing countries – India and Nigeria – referred to measures to financially disincentivise, or address public support for, fossil fuel production. Similarly, although six of the eight LT-LEDS examined mentioned fossil fuel production, none contain pathways, targets or policy measures to wind it down, although several do identify support measures to ensure a just transition for affected stakeholders.

While the second round of NDCs are only just being submitted, early indications suggest that measures to align fossil fuel production with the Paris Agreement are once again at risk of being overlooked in countries' climate pledges. For example, Norway's second NDC lacks a clear pathway towards aligning fossil fuel production with climate goals (Norway 2020), and Japan's second NDC is no stronger than its first (Japan 2020).

In the next section, we discuss the type of information countries could include in their NDCs and LT-LEDS to begin to align fossil fuel production plans with Paris goals.

What types of information could be included in NDCs and LT-LEDS?

1. Background information about national fossil fuel reserves and current and projected extraction

Many NDCs and LT-LEDS already include background information on countries' national circumstances, such as their current levels and sources of emissions. In future submissions, countries could also include details of their current and projected levels of fossil fuel production, including a quantification of the carbon content of this production. Governments can also provide information on their support to fossil fuel production, such as through public finance, subsidies, and other measures.

Including that information in NDCs and LT-LEDS would enhance transparency and provide useful context for the information recommended in points 2–6 below.

2. Pathways and targets for aligning fossil fuel production with Paris Agreement goals

According to last year's *Production Gap Report* (SEI et al. 2019), national plans and projections for fossil fuel production imply global production levels that significantly exceed what would be compatible with Paris Agreement goals. Countries could use their LT-LEDS to communicate long-term pathways to plan the transition away from fossil fuel production, including through targets and milestones to align with long-term decarbonisation (Piggot et al. 2018).

Parallel to this, countries could use their NDCs to convey interim (five-year) targets to reduce production in a manner that is coherent with the longer-term LT-LEDS. For example, they could use carbon budgeting to ensure that targets are aligned with Paris Agreement temperature limits (Oil Change International 2016). Such information should be in line with guidance from the UN climate change process and also include quantifiable information on the reference point for any quantitative targets, including a base year; timeframes for implementation; scope and coverage; and relevant assumptions and methodological approaches.

Countries could also model how longer-term fossil fuel production and fossil fuel infrastructure developments could be consistent with Paris goals in their LT-LEDS (Piggot et al. 2018). This could be complemented with quantitative models and roadmaps showing the long-term effects of shorter-term supply-side policy measures as included in countries' NDCs, and resulting emission reductions.

3. Policy measures to manage a wind-down of fossil fuel production

In addition to targets, many current NDCs include specific policies and measures aimed at achieving mitigation targets. In both NDCs and LT-LEDS, Parties could also identify supply-side policies and measures that address not only consumption, but extraction and production of fossil fuels (Lazarus and van Asselt 2018).

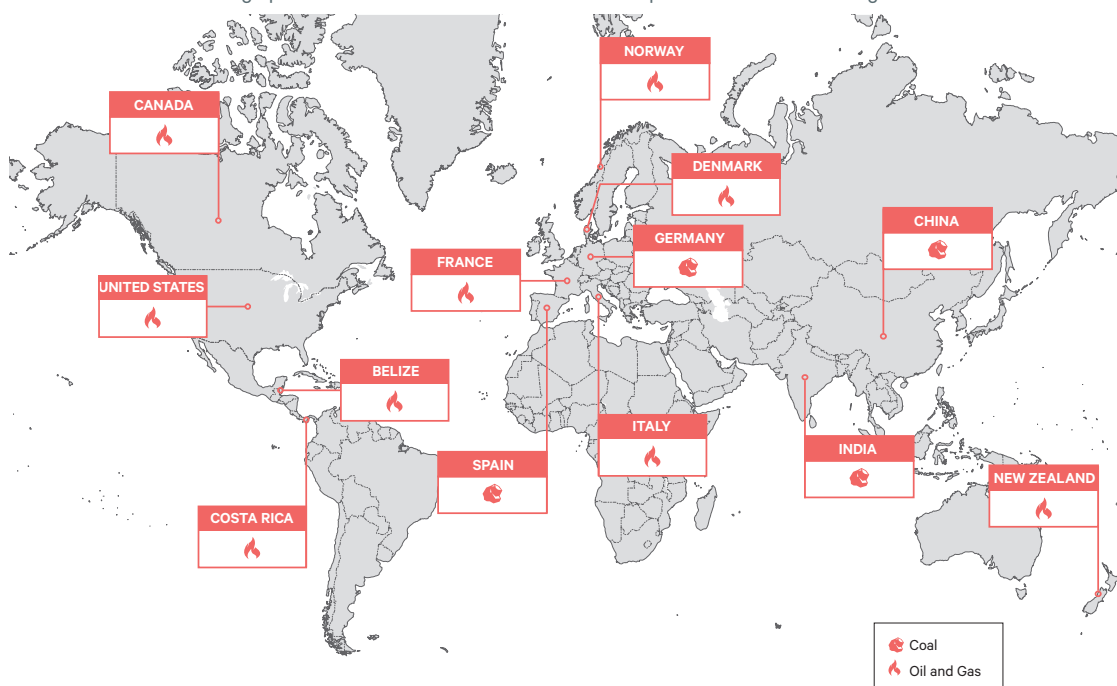
Supply-side policy tools include (i) economic instruments, such as fossil fuel subsidy reforms or taxes on the production or export of fossil fuels; (ii) regulatory approaches, such as enacting moratoria on new fossil fuel infrastructure, prohibiting the development of specific technologies, or restricting the leasing of state-owned land and waters for fossil fuel development; (iii) addressing government provision of goods and services, including divestment from public funds from fossil fuel holdings, or restricting export credit agencies and multilateral development banks from financing fossil fuel infrastructure, and (iv) information and transparency, including requirements for corporate disclosure of progress against climate targets as well as climate risks associated with extraction (SEI et al. 2019).

Indeed, various countries have already begun to adopt measures to address fossil fuel production (Figure 1). Going forward, NDCs and LT-LEDS could be strengthened through explicit incorporation of such measures and in recognition of the importance of fossil fuel supply-side policies for meeting climate goals.

4. Just transition and economic diversification plans and measures

Ensuring a "just transition" to a low-carbon economy entails securing the future and livelihoods of the workers, families, communities, regions and others affected by the transition. There is increasing recognition that a just transition for all is important for ensuring an effective and inclusive shift to a low-carbon economy, including through economic diversification (UNFCCC 2018b). This means it is important to generate opportunities to maintain economic stability and prioritise support to regions with lower financial capacity to invest in diversification (Atteridge and Strambo 2020).

Figure 1. Examples of recent measures that can support a wind-down of fossil fuel production and could be reflected in international climate change plans. Note that not all measures were adopted with a climate change rationale.



BELIZE

- 🔥 Moratorium on offshore oil exploration and drilling

CANADA

- 🔥 Phase-out of the accelerated capital cost allowance for oil sands projects and the Atlantic Investment Tax Credits for use in oil and gas activities (subsidy reform)
- 🔥 Moratorium on offshore oil and gas activities in Canada's Arctic waters and in designated marine protected areas

CHINA

- 🔵 Supply-side structural reform (closure of coal mines) and just transition support measures

COSTA RICA

- 🔥 National moratorium on oil exploration and exploitation

DENMARK

- 🔥 Ban on exploration and drilling for oil, gas, and shale gas on land and in inland waters

FRANCE

- 🔥 No new or renewal of exploration permits for conventional and unconventional fossil fuels; Phase-out of all oil and gas production within the country and its overseas territories by 2040

GERMANY

- 🔵 Phase out of subsidies for domestic hard coal industry by 2018
- 🔵 Just transition plan for the coal industry: compensation for coal mining provinces; compensation and training for coal miners

INDIA

- 🔵 Cess (tax) on coal production

ITALY

- 🔥 18-month moratorium on offshore oil and gas exploration permits

NEW ZEALAND

- 🔥 Ban on new offshore oil and gas exploration permits
- 🔥 Establishment of a "Just Transitions Unit" with a focus on supporting the region most dependent on the oil and gas industry

NORWAY

- 🔥 Certain offshore areas closed for drilling (including Lofoten archipelago and other coastal and sensitive areas and in the Arctic)

SPAIN

- 🔵 Closure of domestic coal mines with Just Transition plan (compensation and re-training)

UNITED STATES

- 🔥 Moratorium on oil and gas exploration in some areas of the Arctic and Atlantic

Source: Reproduced from SEI et al. (2019)

Examples of policies to support a just transition include cash transfers, early retirement benefits, and subsidised retraining for fossil fuel dependent groups (Green and Gambhir 2019).

Nations that rely heavily on fossil fuel production are increasingly taking action to restructure their economies (Al-Sahiri, 2018; Ulrichsen, 2016). In their NDCs, countries with workforces engaged in fossil fuel production could outline policies and measures to provide for a just transition for these workers and their communities, including policies for the participation and inclusion of affected workforces in decision-making (Jenkins et al. 2020).

Similarly, nations could incorporate policies and measures to foster economic diversification away from fossil fuel production to other sectors. In LT-LEDS, nations could include modelling, scenario planning and road-mapping for economic diversification and a just transition of workers and communities over the longer term. NDCs could then be used to describe short-term measures to help support these plans.

5. Interventions to reduce production-related emissions

Fossil fuel extraction has a high carbon intensity not only due to emissions from burning fossil fuels, but also due to high energy requirements and the release of methane and CO₂ from flaring and venting. The Intergovernmental Panel on Climate Change (IPCC) estimates that the production process for fossil fuels can add another 5–10% to the emissions from using coal, oil and gas (Bruckner et al. 2014). Therefore, in addition to winding down overall fossil fuel production, production-related emissions for any remaining fossil fuel extraction need to be minimised.

Countries' NDCs and LT-LEDS could therefore also include targets and policies that aim to reduce emissions from extracting sectors, alongside targets to align fossil fuel supply with Paris goals and promote a wind-down of fossil fuels. These are among measures that countries most often include in their NDCs and LT-LEDS (Verkuijl et al., 2019), and are in line with sector-specific targets, measures and policies that many countries already include in such plans.

6. Equity considerations

Different countries and communities face very different challenges in transitioning away from fossil fuel production, including as a result of different dependency on fossil fuel production and capacity to transition (Muttitt and Kartha 2020). Under the UN climate change process, governments are required to highlight how their NDC is fair and ambitious, in light of their national circumstances (UNFCCC 2018a, Annex I). Countries can use this as a vehicle for communicating how the measures, policies and targets they have identified to support a wind-down of fossil fuels are equitable.

Developing countries could use NDCs and LT-LEDS as vehicles to improve equity – for instance, by detailing the types of support they need to ensure a just and equitable transition. They could also make the achievement of targets to wind down fossil fuel supply, as recommended in points 2 and 3, (partially) conditional on international support. Similarly, their LT-LEDS could identify the support needed for implementing longer-term wind-down plans.

Conclusion

Governments around the world are simultaneously developing COVID-19 economic recovery plans as well as two major climate-related documents: NDCs and LT-LEDS. As outlined in this brief, that confluence presents a unique opportunity to ensure that countries are on track to wind down fossil fuel production in line with Paris goals, and to communicate related policies and strategies.

By including the six types of information described above (and summarised in Table 1), countries can highlight what they are already doing to address fossil fuel production, and potentially expand the mitigation actions they are taking to target fossil fuel supply. By explicitly addressing the supply of fossil fuels, alongside fossil fuel demand, governments can improve policy coherence, and bring their climate plans in closer alignment with international climate goals.

Table 1. Fossil fuel production measures that could be included in NDCs and LT-LEDs

Information type	Climate plan	Types of information that may be included
Background information about national fossil fuel reserves and current and projected extraction	NDCs	<ul style="list-style-type: none"> Current and projected fossil fuel production (in energy and carbon contents) Estimated reserves by fuel Information on public finance, subsidies and other forms of government support to fossil fuel production
	LT-LEDs	
Pathways and targets for aligning fossil fuel production with Paris Agreement goals	NDCs	<ul style="list-style-type: none"> Interim targets to reduce fossil fuel production, in line with LT-LEDs Quantifiable information on the reference point for any quantitative targets
	LT-LEDs	
Policy measures to manage a wind-down of fossil fuel production	NDCs	<ul style="list-style-type: none"> Economic instruments (e.g. removing subsidies for fossil fuel producers; implementing production and export taxes on fossil fuels) Regulatory approaches (e.g. moratoria on new fossil fuel infrastructure; prohibiting the development of specific resources, infrastructure or technologies; and restricting the leasing of state-owned land and waters for fossil fuel development) Government provision of goods and services, including support for workers, companies and government-owned finance institutions to transition away from fossil fuels; divestment from public funds from fossil fuel holdings, or restricting export credit agencies and multilateral development banks from financing fossil fuel infrastructure Information and transparency requirements, including requirements for corporate disclosure of progress against climate targets as well as climate risks associated with extraction
	LT-LEDs	
Just transition and economic diversification plans and measures	NDCs	<ul style="list-style-type: none"> Plans, policies and measures to foster economic diversification away from fossil fuel production Policies for the participation and inclusion of affected workforces and communities in decision-making
	LT-LEDs	
Interventions to reduce production-related emissions	NDCs	<ul style="list-style-type: none"> Targets and policies for reducing emissions from extracting sectors
	LT-LEDs	
Equity considerations	NDCs	<ul style="list-style-type: none"> Information on how any pathways, targets and measures to wind down fossil fuel production are fair and ambitious Information on types of international support that could help ensure a just and equitable transition from fossil fuels
	LT-LEDs	

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