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Implementing the Global Stocktake's energy goals: Why economic transition matters for COP30

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Since the conclusion of the first Global Stocktake, there has been little progress on the call to transition away from fossil fuels, due to shifts in the global energy landscape and barriers to implementation at country-level and in international cooperation. This *Policy Brief* argues that the transition needs to be unpacked into different streams, including with a renewed focus on the economic transition of oil and gas producers, through a dialogue engaging the economic actors that have the capacity to shape global energy markets, major oil producers, major consumer countries that are aiming to decarbonize their economies, and smaller economies that are dependent on oil imports and will be deeply impacted by price disruptions. COP30 provides an opportunity to highlight this gap and foster greater coordination between climate and economic policies in the transition away from fossil fuels.

KEY MESSAGES

In 2023, in Dubai, countries agreed on the goal to "transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner". However, the follow-up of this call in the UNFCCC has proved difficult, as illustrated in the discussions under the Mitigation Work Programme and the United Arab Emirates Dialogue, most recently in Bonn and a limited uptake in NDCs.

Despite the emergence of initiatives and platforms focused on the production side, there remains a gap in international governance for consumers and producers to coordinate to chart an orderly transition. COP30 provides an opportunity to highlight this gap and encourage the establishment of new ways to support countries on the transition away from fossil fuel.

Understanding each type of fossil fuel, how they are used in country contexts and within sectoral systems, and the type of transitions that need to happen is key to the implementation of the transition away from fossil fuel. This should lead to a renewed focus on the economic transition, engaging economic actors that have the capacity to shape global energy markets, major oil producers, but major consumer countries that are aiming to decarbonize their economies, and smaller economies that are dependent on oil imports and will be deeply impacted by disruptions to global energy markets.

Under the leadership of Brazil, there is an opportunity to establish a continuous dialogue to coordinate on the transition of supply and demand, avoiding supply disruptions and stranded assets. The objective is to exchange views on respective oil trajectories and economic planning and to ensure effective progress on the economic transition, aligned with science-based climate pathways. Long-term low emission development strategies are also a key tool to be updated to address the economic transition from fossil fuels and achieve global and country-specific climate neutrality goals.

POLICYBRIEF

N°05
October
2025

1. INTRODUCTION

As the first Global Stocktake of the Paris Climate Agreement concluded in 2023, countries recognized the need for deep, rapid and sustained global greenhouse gas reductions in line with 1.5°C pathways and agreed to implement a set of global efforts,[1] including the goal to "transitioning away from fossil fuels in energy systems, in a just, orderly and equitable manner". This was the first time fossil fuels were explicitly mentioned at the United Nations Framework Convention on Cimate Change (UNFCCC) discussions, and it brought renewed momentum for initiatives and discussions around the production and use of fossil fuels.

However, the follow-up to this goal within UNFCCC is proving to be challenging, as illustrated in the discussions under the Mitigation Work Programme and the United Arab Emirates Dialogue on implementing the global stocktake's outcomes, which could not integrate fossil fuel transition into the programme's agenda, nor the scope of the dialogue, despite attempts by specific countries. More importantly, the new Nationally Determined Contributions (NDCs) would be the opportunity to disclose nationally-driven visions to transition away from fossil fuel, and yet, while most new NDCs mention the transition away from fossil fuels, virtually none has oil and gas production transition pathways.[2]

When it comes to implementation, the challenges have proven even greater. Since the Global Stocktake, the global climate and energy landscape has undergone significant shifts. Growing geopolitical tensions and conflicts, coupled with the weakening of multilateral governance, have reduced countries' willingness to cooperate on the energy transition, redirecting attention toward energy security. These shifts are compounding existing structural barriers to implementation, linked to countries' political economy and governance, and their capacity to manage the transition in an equitable manner to maintain public support. In addition, structural changes, such as the rising electricity demand in both advanced and emerging economies have led some countries to prioritize domestic fossil fuel production and existing energy systems. The latest *Production Gap Report* finds that planned fossil fuel production now exceeds countries' own climate mitigation pledges by 35% in 2030 and 141% in 2050.[3]

Understanding the evolving global energy landscape, along with countries' and sectors' specific contexts and types of transition required, whether energy or economic, is therefore key to an effective implementation of the transition away from fossil fuel. Addressing supply and demand simultaneously is also important to avoid abrupt disruptions[4]—both at country-level and internationally. Despite the emergence of initiatives focused on the production side, with the Powering Past Coal Alliance launched in 2017 and the Beyond Oil and Gas Alliance (BOGA) launched in 2021, and platforms, like the EU's Global Energy Transition Forum, there remains a gap in international governance for consumers and producers to coordinate to chart an orderly global transition. However, there is political will from some producer countries to start a discussion, for example with Nigeria having announced recently it is joining the BOGA Fund. COP30 provides an opportunity to highlight this gap and encourage the establishment of new ways to support countries on the transition away from fossil fuel.

2. CHARACTERISTICS OF EACH FOSSIL FUEL, COUNTRY CONTEXTS AND DIFFERENT TYPES OF TRANSITION

When considering the transition away from fossil fuel from a macro-economic perspective, a key distinction to make is the difference between coal, oil and gas.[5] Coal and oil provide interesting and contrasting examples. Coal is the least traded of all fossil fuels, with only about 20% of global consumption met through imports, compared to roughly 40% for crude oil and 70% with refined products. Coal is mostly staying in the country where it is extracted. A few sectors dominate coal demand, with the power sector making up 65% of global coal consumption and coal demand is concentrated in emerging and developing economies, mainly in China (58% of global consumption in 2024). Domestic coal use is further boosted by its abundance and lower cost, as well as growing energy security concerns, particularly in countries experiencing rapidly rising electricity demand. On the other hand, oil is mostly exported and generates larger margins than coal or gas. It plays a significant economic role in producing countries, where 50% of revenues generated by the industry went to governments, mostly in the form of taxes, between 2018 and 2022. Oil and gas production is also concentrated in a few countries and regions, though less so than coal. In 2024, the top 10 oil producers accounted for nearly 72% of global production, whereas the same share for coal is concentrated in just three countries. However, oil and gas producers exert greater influence over global energy markets and price dynamics due to the characteristics of these commodities as globally traded resources and their critical role across multiple end-use sectors, particularly transport and industry.

Under net-zero pathways, all countries studied by the Deep Decarbonization Pathways Initiative show a clear structural decreasing trend in the use of fossil fuels for final energy consumption.[6] However, assessing what role each fossil fuel plays in their socio-economic contexts and energy systems is

[1] Decision FCCC/PA/CMA/2023/16/Add1, paragraph 28.

[2] Marshall S. *et al* (2025). NDC Energy Commitments Tracker

[3] SEI, Climate Analytics, & IISD (2025). The Production Gap Report 2025. Stockholm Environment Institute, Climate Analytics, and International Institute for Sustainable Development.

[4] Catavento (2024). Rethinking Transitioning Away from Oil and Gas in a Just and Equitable Manner.

[5] Muttitt G. (2025). Unpublished slide deck: a quantitative overview of patterns in fossil fuel production and consumption, shared on March 2025.

[6] DDP (2024), DDP Annual Report 2024. Making it happen: national pathways to net zero. IDDRI.

key to identifying levers of transformation and pathways for the transition. For example, in the United States, oil is mostly consumed in the transportation sector (cars, trucks, aviation), making it a sector where decarbonization should be considered in priority, not only by electrifying vehicles but also by considering structural changes in urban and transport infrastructure and organization. In Brazil, the oil and gas industry plays an important economic role as a revenue stream, accounting for approximately 6% of national tax revenue[7] and around 3% of GDP,[8] in addition to being the country's main export product (13-16% of total exports in 2024)[9]. In China, coal is used to produce electricity and for heavy industry, such as steel and cement, underpinning the country's economic growth and highlighting its dependence on this resource for development.

Almost all countries who consume fossil fuels have to deliver an energy transition to reach climate goals, which involves decarbonizing key sectors, for example by shifting power generation to renewables, electrifying key sectors, and increasing energy efficiency. However, countries that rely on fossil fuels for fiscal or export revenues must also pursue an economic transition, promoting economic diversification by reorienting their export sectors, prioritizing net-zero compatible goods and services and boosting alternative sources of revenues. Both these transitions will also need to be just transitions, which were initially focused on ensuring workers and communities in the fossil fuel production sector are adequately protected and supported in transitioning to other employment opportunities, but now having broadened to a wider political and economic agenda, considering changes in other systems, including consumer countries, and international considerations.[10]

Building on the differences highlighted above, regarding the type and role of fossil in varied socio-economic contexts, as well as the nature of the transition, whether energy-related or economic. In this context, a way forward for the implementation of the transition away from fossil fuel would be to unpack international discussions into different streams, starting with a renewed focus on the economic transition.

3. THE ECONOMIC TRANSITION: A MISSING PIECE FOR OIL PRODUCERS

The energy transition has received the most attention in global discussions, especially in the Action Agenda due to the crucial need to decarbonize key sectors to curb fossil fuel consumption and the complexity to discuss economic policies within the UN. Justice and a just transition are a key anchor of the Paris Agreement, being part of its preamble, and have gained renewed traction in recent years—including with the Just transition Work Programme—as a response to a growing implementation gap and decreasing public support to some climate policies, showing insufficient consideration of socioeconomic issues in policy design. The economic transition is the piece of the puzzle that has been somewhat missing, and which could benefit from a novel approach in discussions relative to the transition away from fossil fuel.

While the 1992 UNFCCC includes specific considerations on the adverse effects of climate policies on countries whose economies are highly dependent on income generated by fossil fuels,[11] they were never really addressed. Economic diversification was mentioned as a topic in 1999-2000 negotiations around the Kyoto Protocol. But finding a way forward on economic diversification challenges was not a priority for Parties, despite a programme of work started in 2004. The Katowice Committee of Experts on the Impacts of the Implementation of Response Measures established in 2018 now covers economic diversification and transformation but has not yielded concrete results.

Outside of the UNFCCC, there have been efforts to mobilize key economic actors and the finance community internationally, for example with the launch of the Bridgetown Initiative on the reform of international development and climate finance architecture, and at country-level with the launch of Colombia's country platform as a mechanism to coordinate and channel investments into the country's just energy transition and socio-ecological transformation, providing a roadmap for economic diversification away from fossil fuel.

There is an important body of scientific literature studying the implications of fossil fuel supply-side policies in countries' transitions, and internationally among countries, through different lenses.[12] From a macroeconomic perspective, a recent report by Catavento[13] identifies different macroeconomic dimensions that can affect the pace and difficulty of an economic transition away from oil and gas production. For example, oil and gas relevance is a key macroeconomic dimension, which reflects a country's economic dependence on O&G activities as well as its exposure to stranded assets in the context of declining demand and increased price volatility. The competitiveness of a country's oil and gas production, considering both production costs and emissions, is another key aspect that will shape the pace of transitioning from a purely economic point of view and determine which producers may be more competitive

7 OECD *et al.* (2024), Revenue Statistics in Latin America and the Caribbean 2024, OECD Publishing, Paris,

8 CNI (2021). Perfil da Indústria Brasileira.

9 MDIC (2025). Resultados do Comércio Exterior Brasileiro - Dados Consolidados.

10 Just Transitions Dialogues, 2025, Reflections on Global enablers of just transitions to net zero emissions. UCT and IDDRI, https://www.iddri.org/en/publications-and-events/note/reflections-global-enablers-just-transitions-net-zero-emissions

11 Paragraph 8.h. of the Convention.

12 To name just a few: Muttitt, G., & Kartha, S. (2020). Equity, climate justice and fossil fuel extraction: principles for a managed phase out. *Climate Policy*, *20*(8), 1024–1042; Foster, V. *et al.* (2024). Development transitions for fossil fuel-producing low and lower–middle income countries in a carbon-constrained world. *Nat Energy* 9, 242–250; Calverley, D., & Anderson, K. (2022). Phaseout Pathways for Fossil Fuel Production Within Paris-compliant Carbon Budgets.

13 Catavento. (2024). Rethinking transitioning away from oil and gas in a just and equitable manner. Catavento. (2025). Transitioning away from fossil fuels: a broader perspective to drive implementation.

to supply the remaining demand. Institutional and social resilience is critical for anticipating, managing, and recovering from disruptions associated with the transition. Finally, a robust institutional framework also supports an orderly transition, enabling countries to balance short-term economic benefits from oil and gas production with long-term transition risks, from being fossil-fuel dependent. Alongside addressing barriers to transition, a complementary approach considers criteria to make the global transition equitable. For example, the Centre for Science and Environment used, among other criteria, historical per capita CO_2 emissions and fossil fuel production and consumption per capita.[14]

Building on existing research and initiatives, the profile of the economic transition should be raised in international discussions to ensure an equitable, just and orderly transition. This should engage those that have the capacity to shape global energy markets, firstly major oil producers, but also major consumer countries that are aiming to decarbonize their economies, and smaller economies that are dependent on oil imports and will be deeply impacted by disruptions to global energy markets.

4. COP30: AN OPPORTUNITY TO HIGHLIGHT THE ECONOMIC TRANSITION AWAY FROM OIL AND GAS

COP30 represents a milestone to assess the uptake of the first global stocktake in countries' new NDCs and enhanced international cooperation, including the implementation of the transition away from fossil fuels. As this uptake is falling short, COP30 is an opportunity to spotlight some of the specific challenges faced by countries in their transition. While addressing all fossil fuels and fostering sectoral transformations to reduce fossil fuel demand remains crucial to implement this goal, the economic transition of oil and gas producers is an angle that deserves a renewed focus in international discussions, to foster greater coordination in the implementation of the transition away from fossil fuel and engage economic actors.

From an oil and gas perspective, Parties and non-States actors that want to advance on the implementation of the transition away from fossil fuel should recognize the current headwinds against the energy transition. A counter-narrative based on the transition away from fossil fuels as an opportunity for long-term economic prosperity should be developed,[15] for example highlighting the need for oil exporters to diversify the economy to avoid stranded assets as fossil fuel consumption is projected to plateau and decrease over in the next decades and today's clean energy technologies have the technical potential to replace 75% of existing fossil fuel demand.[16] In addition, by remaining dependent on fossil fuels and lacking a strategy for economic diversification, countries risk increasing their vulnerability to a sector expected to face declining demand and prices, and may miss the opportunity to integrate emerging low-carbon value chains, which are reshaping the dynamics of power and influence in global geopolitics. Finally, the lack of coordination between supply and demand might result in global energy market disruptions, which will affect disproportionately smaller economies dependent on oil imports.

Brazil could bring together a group of oil producer countries that are assessing the economic risks of their existing or future oil dependence, such as Nigeria, and consumer countries that are reducing their oil demand, such as the European Union, to establish a continuous dialogue, beyond COP30, engaging large oil producers and consumers, including Ministries of Finance, national oil companies, energy experts and academia, to coordinate on the economic transition of supply and demand, avoiding supply disruptions and stranded assets. The dialogue will be established primarily outside of the UNFCCC process, building on the experience that relevant initiatives and fora, such as the Beyond Oil and Gas Alliance, have in leading this type of discussions, but COP30 could encourage its establishment. Brazil is well placed to develop the terms of this dialogue, which should be open to all large producers and consumers and countries deeply affected by the instability of global energy markets. The objective could be to exchange on respective oil trajectories, scenarios and economic planning, to ensure effective progress on the economic transition through the identification of strategies, milestones, and enabling conditions such as economic diversification, aligned with safe climate pathways, also filling existing international energy governance gaps and report back by COP32. However, such a proposal would require as a pre-condition that a few significant producers and consumers lead its establishment to foster international coordination and reduce economic risks.

The economic transition of oil and gas producers goes beyond the realm of climate policy, mobilizing a wide range of actors and requiring the alignment of different policy areas, for example trade and Foreign Direct Investment, and therefore greater orchestration with other international organizations.[17] COP30 Leader's segment could be a moment for where the Presidency convenes a group of Leaders, which are responsible for giving direction to both economic and climate policies from oil-exporting economies to raise the profile of the economic transition and diversification, associated challenges, and longer-term benefits. As an output, a statement could be sent to key international organizations and multilateral and regional development banks focused on economic policies to give urgent attention to the issue, identifying country needs and international cooperation gaps, while sending the signal that oil

[14] Tamanna Sengupta (2024). Equitable fossil fuel phaseout: Science and responsibility. Centre for Science and Environment, New Delhi.

[15] Examples of counter-narratives developed under the project "Policy Dialogue for Just Energy Transitions 2.0: Pathways to Prosperity Post Fossil Fuels": https://climatestrategies.org/projects/ppff-2-0/

[16] Fossil to Clean (2025). Power Up. How Clean Energy is Putting Fossil Fuel Demand in Doubt.

[17] Kauffmann, C. *et al.* (2025). COP30: Addressing implementation. IDDRI, *Policy Brief* N°04/25.

producers are preparing for the structural decline of oil. These organizations have their own governing bodies and mechanisms but Parties, as their shareholders and board members, are expected to pursue measures to implement their NDCs under the Paris agreement, which require other international organizations to foster a better orchestration of macro-economic and climate policies.

Through the Action Agenda's programme, COP30 can highlight tailored financing solutions for low-income and developing countries facing an economic transition away from fossil fuels. For example to help access to capital, facilitate policy exchanges on better pricing low-carbon products, phasing-out inefficient fossil fuel subsidies, and effectively managing oil and gas fiscal revenues towards economic diversification. Starting to think about their country's needs for an economic transition early on and getting tailored support will enable these low-income and developing countries to be better equipped to pursue the transitioning. An example of such tailored support is the BOGA fund which funds analysis and modelling to support countries and regions that want to start planning their transition away from fossil fuels, including on macroeconomic aspects. An assessment of the Action Agenda could more specifically highlight which initiatives these countries can join, or highlight gaps in the current initiatives landscape against economic transition-related needs.

COP30 should encourage countries to update their long-term strategies (LT-LEDS) to address the economic transition from fossil fuels to achieve global and country-specific climate neutrality goals. Indeed, LT-LEDS can be critical tools to translate NDC ambition into implementation, including to analyze countries' socio-economic contexts within the transition away from fossil fuels. Their value lies not only in setting mitigation targets, but also in establishing a coherent planning framework for advancing social and economic priorities in the process of achieving climate goals, which is instrumental to plan the economic transition. LT-LEDS also help rally stakeholders around a common vision for low-emission, climate-resilient development.

H. van Rossum, M. Torres-Gunfaus, C. Lins, G. Ferreira, B. Correa (2025). Implementing the Global Stocktake's energy goals: Why Economic Transition Matters for COP30. IDDRI, *Policy Brief* N°05/25.

This *Policy Brief* benefited greatly from the thoughtful feedback provided by Michel Colombier, Romain Ioualalen and Greg Muttitt. It has received financial support from the French government in the framework of the France 2030 Investment Plan under the reference ANR-16IDEX-001, and from the European Climate Foundation (ECF).

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