

# Prosperity Post Fossil Fuels

Policy Dialogue on Just Energy Transitions

**Briefing: Brazil**



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## About this briefing

This briefing was commissioned by Climate Strategies to support the *Policy Dialogue on Just Energy Transitions: Identifying Pathways to Prosperity Post-Fossil Fuels*, co-hosted by Climate Strategies (CS) and the Salzburg Global Seminar (SGS) from September 8–12, 2024, and organised alongside our partners from the Stanley Centre for Peace and Security and the Windward Fund. It incorporates insights from the author's desk research and discussions held during the dialogue, conducted under strict Chatham House rules. The views expressed here do not necessarily represent those of CS, SGS, the funders, or the programme participants.

## About the Policy Dialogue on Just Energy Transitions

The *Policy Dialogue on Just Energy Transitions: Identifying Pathways to Prosperity Post Fossil Fuels* aimed to increase capacity and confidence in strategies that acknowledge the challenges faced by oil and gas dependent countries, enable participants to envision and enact climate compatible development plans, and foreground viable economic diversification strategies with attention to protecting vulnerable communities. The first iteration of the dialogue took place from September 8 – 12, 2024 in Salzburg, Austria. For more information, follow [this link](#).

## About Climate Strategies (CS)

[Climate Strategies](#) is an international, not-for-profit research network with a Secretariat based in the UK and the Netherlands. Its international network includes some of the foremost thinkers and researchers on a range of multidisciplinary climate change topics. Climate Strategies enables its members and other researchers to place impact at the heart of their research, catalysing climate action by providing robust evidence for decision-making and facilitating meaningful interactions between decision-makers and researchers.

## About Salzburg Global Seminar (SGS)

[Salzburg Global Seminar](#) is an independent non-profit organization with a mission to challenge current and future leaders to shape a better world. Founded in 1947 as a centre for post-war dialogue and reconciliation, for 75 years Salzburg Global Seminar has worked to catalyse new perspectives, ideas, and collaborations that shape more peaceful, equitable, and just societies.

The dialogue was held at Schloss Leopoldskron, the home of Salzburg Global, in Salzburg, Austria. It provides a retreat-like environment, which is conducive to the sensitivity and complexity of this conversation. Together with an international network of 40,000 Fellows, Salzburg Global has been at the forefront of global movements for change for 76 years, generating significant impact on individuals, institutions, and systems. PPFF participants joined this network of Fellows, allowing for continuous high value exchanges beyond the scope of the programme.

# Prosperity Post Fossil Fuels: policy briefing for a just energy transition in Brazil

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## Key messages

Brazil is a key case for understanding the challenges of the transition away from fossil fuels in the Global South due to the following reasons:

- Despite the commitment to contribute to global climate action, deep fiscal constraints and socio-economic inequalities have made the expansion of oil and gas an attractive economic strategy.
- Current plans anticipate continued oil production in 2050, although a faster energy transition is possible and desirable.
- Brazil's petroleum revenues could be used more strategically to tackle climate change.

With this in mind, it is important to note the ways in which the Brazilian climate and energy context is *sui generis*:

- Brazil's historic greenhouse gas emissions come largely from agriculture and land use change, especially deforestation.
- The electricity system has long relied on renewable sources, including hydropower and now wind and solar as well.
- Biofuels play a significant role in the energy mix.
- Fossil fuels still constitute fully half of energy use (51%), and play an especially important role in the heavy transport sector.

This briefing makes several policy recommendations that reflect Brazil's own context as well as its leadership role in 2024 and 2025 through the G20 Presidency and as host of the UNFCCC COP30. In particular:

- *At the G20 and at COP30, Brazil could propose new initiatives to reduce its fossil fuels subsidies, providing an incentive for others to do the same. Reducing subsidies is politically difficult, but Brazil grants lower subsidies than many other major economies.*
- *Brazil could also substantiate official claims that revenues from petroleum production will be used to support the energy transition. Wealth from oil could potentially help spur Brazil's green economic transformation and curb deforestation. These aims could be more explicitly incorporated in the current plans for the Energy Transition and Ecological Transformation, helping catalyse global action at COP30.*
- *Any proposal should pay attention to the way costs and benefits are distributed inside Brazil as well as internationally ensuring a just transition.*



## Introduction

Brazil is a key case for understanding the challenges of the transition away from fossil fuels in the Global South. As a major oil producer, renewable energy powerhouse, and host of most of the Amazon rainforest, Brazil embodies many of the conflicting interests that hamper transition efforts globally. It is also a country historically marked by extreme levels of inequality, which implies that distributive considerations must be front-and-centre of a transition agenda. These multi-faceted challenges must be tackled by a state that is generally inclined to try to reshape its economy yet struggles to muster resources on a scale comparable to that of countries in the Global North.

In light of this context, and considering the burgeoning literature on just energy transitions, this briefing examines the dilemmas and opportunities posed by Brazil's post-fossil fuel economy through the lens of four parallel dimensions:

- i) **Environmental goals**, as outlined in the Nationally Determined Contributions (NDCs) to the Paris Agreement and beyond
- ii) **Fiscal sustainability**, in the face of governments' multiple spending pressures
- iii) **Economic diversification**, to improve income levels and living standards
- iv) **Equity**, both within and across regions and time.

While facing challenges across all four dimensions, Brazil is well positioned to tackle them. However, the country must overcome the limitations posed by its fragmented patterns of policy-making. This will allow the government to i) align fiscal policy with the goal of transitioning away from oil and gas; ii) coordinate industrial and energy policy to capitalise on Brazil's green credentials and spur low-carbon and equitable economic development; and iii) use the oil and gas sector as a source of public revenues, capital, and technology for the promotion of activities aligned with climate goals.

## Energy landscape

### Energy mix

From the perspective of its electricity mix, Brazil can be said to have largely completed its energy transition. Figure 1 shows that while hydropower provides the majority (63%) of the country's electricity, wind, biomass, and solar PV also are important sources. Wind and solar have seen a rapid growth in recent years, rising from less than 1% of total built capacity as late as 2012 to 16.5% in 2022.

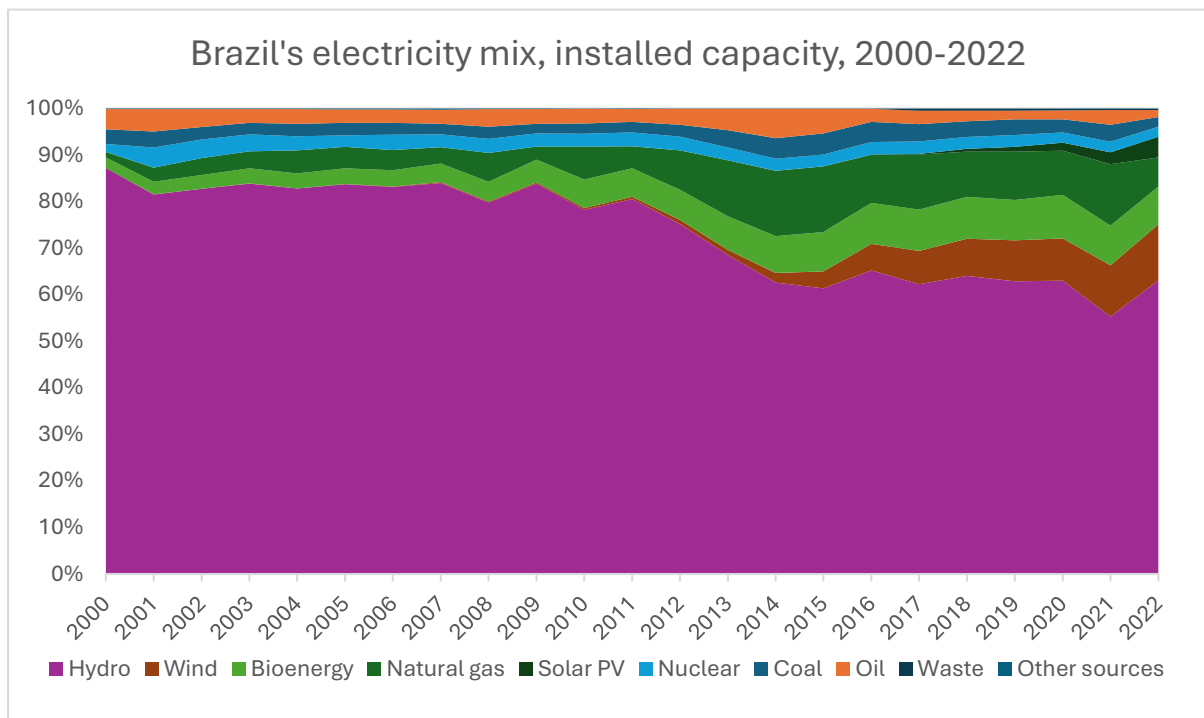


Figure 1. Source: International Energy Agency

A unique feature of Brazil's energy mix is the prominent role of biofuels. This is mostly attributable to its fleet of ethanol-powered vehicles. Initially devised as a solution to the oil shocks in the 1970s, the use of ethanol declined in the 1990s before being revived after the invention of the "flex fuel" engine (powered by ethanol, gasoline, or a mix of the two) in 2003. Together with bioelectricity, Brazil possesses one of the world's highest proportions of bioenergy in its energy mix. While bioenergy is considered a renewable resource, Brazilian biofuels have faced resistance externally due to concerns that they might be linked to emissions from direct or indirect land use change.<sup>1</sup>

Despite the predominance of renewable energy in the electricity mix and the role of biofuels and hydropower, Figure 2 shows that petroleum products remain prominent, providing 37% of the country's energy needs. This is mostly due to the use of oil-based fuels (particularly diesel) in road transport, on which Brazil is heavily dependent. As a result, the contribution of petroleum is still above the global average of around 30%.<sup>2</sup>

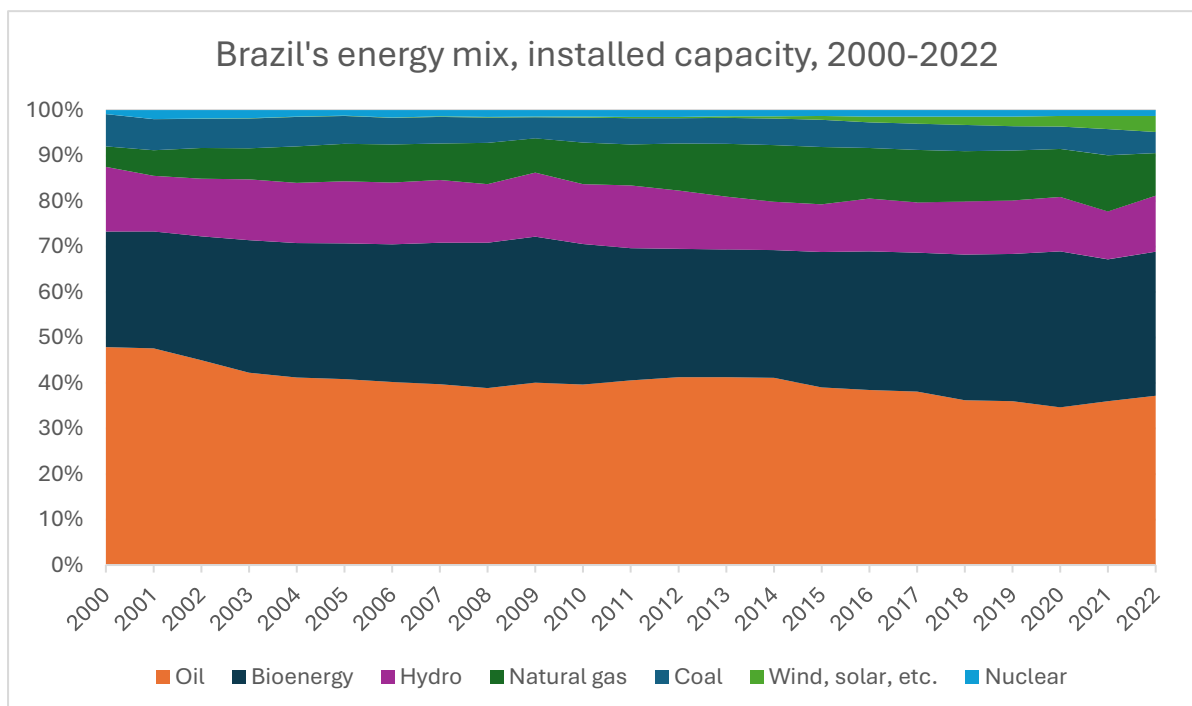


Figure 2. Source: International Energy Agency

Once the contribution of coal and natural gas, which has risen since 2000, is added, fossil fuels still constitute more than half (51%) of the energy mix. The data thus suggests that the distinguishing feature of Brazil is its high share of bioenergy and the comparatively low share of coal and natural gas. Oil consumption, while not low by international standards, is mostly concentrated in the transportation sector. Nonetheless, greenhouse gas emissions from the energy sector are dwarfed by those of agriculture and land-use change and forestry, which together represent around 73% of domestic emissions.<sup>3</sup>

In view of the country's predominantly renewable electricity mix and of its sources of greenhouse gas emissions, the energy transition should be seen as i) an opportunity to spur economic transformation and ii) a challenge of articulating a development model that reduces emissions from agriculture and land-use change and forestry.

### Oil and gas

Historically an oil importer, Brazil's situation began changing from the 1980s as the state-controlled oil company Petrobras mastered offshore production in the Campos Basin. Following the liberalisation of the sector in the 1990s, the next milestone was the 2006 discovery of the ultra-deepwater "pre-salt" reserves. Since the first pre-salt oil field came online in 2008, oil and gas production increased from 2.4 million barrels of oil equivalent per day (boe/d) to 4.3 million in 2023<sup>4</sup>. The pre-salt currently represents 78% of Brazilian oil and gas production<sup>5</sup>. Despite the liberalisation, Petrobras still accounts for around three

quarters of Brazil's total oil production, so its actions play an outsized role in shaping the post-fossil fuel transition.

Since 2016, the country has been a net exporter of crude oil and petroleum products, and in 2023 it posted a record trade balance of USD 26.6 billion, making crude oil one of the top exports.<sup>6</sup> The Brazilian National Industrial Council estimates that oil and gas made up 15% of the country's industrial GDP,<sup>7</sup> while the World Bank estimates that oil rents represented 2.6% of overall GDP in 2021<sup>8</sup> This is above the world average of 1.3%, but far below the 10%, 20% or 30% of most petrostates.

Estimates of the employment generated by the oil and gas industry vary widely, with indirect jobs (i.e. among suppliers and contractors) surpassing direct jobs. In 2023, Petrobras had 40,400 employees<sup>9</sup>. An association of oil service providers, however, estimates the total jobs generated by the sector at 616,000<sup>10</sup>, or close to 1 million when adding "induced" jobs (i.e., the jobs associated with the additional purchases of goods and services enabled by revenues accruing from oil production).<sup>11</sup> Even if these unverified estimates are accepted, this would still be less than 1% of Brazil's total workforce of 101 million<sup>12</sup>. Petrobras and the oil industry nonetheless are important employers in major oil-producing regions such as Northern Rio de Janeiro state, or in cities hosting refineries.

The capital intensity of the oil and gas industry implies that the fiscal dependencies created may be greater than labour dependencies. The contribution to general government revenues from fossil fuel production remains limited, at between 2-4%.<sup>13</sup> A 2019 study found that in the years of lower oil prices (2014-2017), revenues from fossil fuel consumption were higher than those from production. In 2017, general government revenues from fossil fuel production and consumption amounted to 6.8%<sup>14</sup>. This is relatively low compared to most petrostates, but still non-negligible, particularly considering that large shares of Brazil's federal revenues are claimed by fixed budget lines and, recently, Congressional pork-barrel spending.<sup>15</sup> Since discretionary revenues are scarce, losing even small quantities of revenue from oil and gas production forces unwelcome choices. Moreover, the laws governing the distribution of oil royalties mean that many oil-producing municipalities, especially in the south-eastern states of Rio de Janeiro and Espírito Santo, are heavily dependent on them.<sup>16</sup> It is nonetheless fair to conclude that Brazil is a large oil and gas producer in absolute terms (increasingly so), but its economy is not excessively dependent on the sector.

### **Forecast**

Based on projections from the planning agency Empresa de Pesquisa Energética (EPE), Brazilian oil production is set to peak at between 5.3 and 5.4 million bbl/d in 2029-2030<sup>17</sup>. Its subsequent trajectory will depend on whether the promising oil fields of the "Equatorial Margin", located off the northern coast, are granted exploration licenses by the

environmental agency IBAMA (see the next section for more details). An EPE study published in April suggests that if exploration and production in the Equatorial Margin does not go forward, production will fall by 0.2-0.3 million bbl/d per year, reaching close to zero by 2055. The total losses for government revenues relative to business as usual between 2032 and 2055 are projected to amount to BRL 3.7 trillion (USD 680 billion at current exchange rates). The same study also forecasts that the reduction in oil production would lead to a USD 1.4 trillion decline in the trade balance between 2024 and 2055.

On the other hand, if the anticipated licenses in the Equatorial Margin materialise, oil and gas production could rise from 4.7 boe/d in 2024 to a peak of 7.3 boe/d in 2050, placing Brazil amongst the world's top producers. This would naturally entail a more substantial contribution to government finances which, according to the official position of the EPE and the Ministry of Mines and Energy (MME), would enable the financing of the energy transition.<sup>18</sup>

## **Policy context: actors, interests, and policies**

### **Climate commitments**

Brazil's NDC commits the country to absolute greenhouse gas emissions reductions by 48.4% in 2025 and 53.1% by 2030, from a 2005 baseline. The country also pledges to reach climate neutrality by 2050. In laying out plans to achieve these ambitious goals, the Brazilian NDC does not mention that the country is an oil and gas producer. These observations provide the relevant context for understanding if and how a "transition away from fossil fuels" is part of Brazil's decarbonization trajectory. Brazil has created various inter-ministerial bodies to guide its climate action. This matches a national climate law (Law 12.187-2009) which is sectoral in nature, giving climate action responsibilities to specific ministries, including the MME.

### **Energy and climate**

The climate law passed by the National Congress in 2009 included the objective "to stimulate the development and use of clean technologies and the gradual phasing out of the use of energy sources based on fossil fuels." Then (and current) President Luiz Inácio Lula da Silva used his line-item veto to reject this clause, explaining that Brazil had already developed clean energy technologies and that the existing energy policy was to make use of available resources, including fossil fuels, while other legislation requires that environmental protection is balanced with other priorities, like energy security.

The implementing regulation of the law (Decree 7390/2010) makes the planning documents of the Empresa de Pesquisa Energetica (EPE) key for balancing multiple energy interests. EPE is a semi-autonomous agency associated with the MME. It is a technical agency made



of experts with varying skills and knowledge bases, including on environmental topics. EPE's annual 10-year planning documents, the *Planos Decenais de Expansão de Energia*, balance expected energy demand with means of supply. From 2010, carbon emissions became one of the parameters used in EPE's optimisation exercises, along with price and other measures. The plans separate oil and gas projections from other parts of the energy sector. While discussions of climate change are common in the latter, the oil and gas sections focus almost exclusively on reserves and prices.

EPE is not the ultimate decision-maker on energy issues, however, as its studies feed into higher level discussion and decision both inside the MME and the National Council on Energy Policy (CNPE), over which it presides. Other decision makers include energy regulators like the National Electric Energy Agency (ANEEL) and the National Petroleum, Natural Gas and Biofuels Agency (ANP), as well as the National Congress and the Presidency. As with Lula's veto of the clause on fossil fuel phase-out in climate law, national presidents can and do exercise considerable final discretion over the shape of energy policy. The wide distribution of oil and gas royalties and revenues has produced a broad coalition of politicians, citizens, and a labour force that favours their continuation<sup>19</sup>.

### **Contradictory policies**

The current Lula administration (2023-2027) is devoting a great deal of attention to the global and national need for the energy transition, explicitly framing it as necessarily a just and environmentally sustainable transition.<sup>20</sup> At the same time, the government insists that climate change solutions include the expansion of oil and gas, with several versions of the plans foreseeing Brazil as an oil and gas producing country in 2050. EPE notes that even the most optimistic transition scenarios contemplate some use of oil and gas globally in 2050, adding that climate action needs the industry for the purpose of energy security, investment and innovation capacity, experience in capital-intensive projects, as well as for its contribution to infrastructure repurposing.<sup>21</sup> Turning to the Brazilian experience, EPE focuses on the minimal emissions (1% of the national total) deriving from oil and gas production, and comparatively low CO<sub>2</sub> emissions per barrel of gas. In addition, the oil and gas sector is the primary source of investments in the technologies necessary for the transition, according to EPE. The Agency calls for "a just, inclusive, and balanced energy transition", and concludes that the emissions gains from the phasing out of fossil fuels would be very small compared to the large economic benefits that would be foregone.

### **Special role of Petrobras**

A key actor executing much of Brazil's oil and gas plans is Petrobras. Once wholly state-owned, the company continues to be state-controlled, although 70% of its shares are publicly traded. Though formally under the MME, Petrobras is largely autonomous in its day-to-day operations. The power wielded by its CEO varies according to their political capital

and broader macro-political circumstances, even if in practice the company's strategy cannot deviate much from the preferences of the presidency. In addition, since its listing in the New York Stock Exchange in 2000, Petrobras has had to abide by strict rules of corporate governance, which were made even stricter in the aftermath of the so-called “car wash” corruption scandal that emerged in 2014.

The interests of Petrobras shareholders and those of the government have frequently clashed, particularly under the left-wing Workers Party (PT) administrations. Concerns about financial sustainability and the Jair Bolsonaro (2019-2022) administration's divestment of non-core assets as part of its shareholder value maximisation agenda have limited Petrobras' ability to invest in clean energy, despite early moves in that direction between 2005 and 2014. Bucking this trend, Petrobras' latest strategic plan (2024-2028) allocates USD 11.5 billion to decarbonisation, of which roughly half is assigned to clean energy technologies. However, few of the funds assigned to renewable energy have so far been deployed.

### **Environmental limits to oil expansion**

Forces countering continued oil and gas production are emerging as oil drilling moves closer to the Amazon region. This mobilizes national environmental actors and garners significant international attention. The most significant frontier for developing new oil reserves is the Equatorial Margin, an off-shore strip from Amapá to Rio Grande do Norte states, in the Brazilian North (Amazon) and Northeast regions. So far, the environmental agency, IBAMA, has refused to license any drilling, even for exploration, in the Amazon estuary basin, one of five in the Equatorial Margin. French company, Total, and the British company, BP, were denied licensing in 2018, as was Petrobras in 2023, a decision it is appealing. Even if IBAMA were to grant a license, environmental activists and the Ministério Público would almost certainly challenge it in court and bring significant delays, if not a block. Although the drilling area is about 500 kilometres from the mouth of the Amazon River, IBAMA has never been satisfied about plans to guarantee the control of possible oil spills, which would threaten not only the coast, but also this fragile and biodiverse region. The license was not denied on climate grounds.

### **Strong governmental institutions lacking coordination for climate action**

The policy context for Brazil's energy transition is marked by the coexistence of government ministries with strong, and relatively autonomous, environmental and energy agencies. These ensure the technical soundness of government policy as well as the application of checks and balances. However, in the absence of greater inter-ministerial coordination, their strong mandates may appear to hinder the integration of climate and energy policy. Fragmentation across agencies is rooted in Brazil's “coalitional presidential” political system, in which the need to cement alliances amongst heterogeneous political actors, and

the consequent permeability to business interests, limit the executive's ability to impose a coherent policy agenda<sup>22</sup>. Such difficulties have increased in recent years, in line with the strengthening of the legislative branch's budgeting and law-making powers, which has decreased the executive's ability to bring disparate actors together to form a political coalition.<sup>23</sup>

## State of the just transition

### *Key dilemmas:*

#### **(Un)necessary role of oil and gas revenues**

The EPE's planning documents treat continued investment in the oil sector as necessary for generating the resources to finance Brazil's green transition. International appeals to forego oil revenues are depicted as unjust, given that many wealthy countries that became rich thanks to fossil fuels exploitation continue to invest in oil and gas. It is true that countries and fossil fuel developers that should be leaders in the energy transition have not done enough. However, it is less clear that Brazil could not forego revenues that are large in aggregate up to 2050, but much smaller on an annual basis. In addition, the costs of some elements of the transition, such as the rapid growth of alternative renewable sources of electricity, have been largely sustained by private investors, the national development bank BNDES, and electricity consumers. Neither public nor private oil and gas revenues have been ring-fenced for energy transition costs and so this direct link has yet to be substantiated.<sup>24</sup>

#### **Distributive considerations**

It is notable that government documents pay little attention to some of the classic elements of a just energy transition, including compensation and other benefits for the fossil fuel labour force. They also say little about the benefits and costs associated with specific groups in a post-fossil fuel economy. Moving away from oil production is likely to face less worker resistance in Brazil than in classic cases of transitions from the coal economy, if only because the oil industry provides limited employment. Policy makers should still be aware of the distributive implications of different decarbonisation pathways, however, including the distribution of public revenues to different sub-national governments.

#### **Broadening the view of the green transition**

Finally, there is a tension between narrower and broader understandings of the environmental issues at stake in a "green" transition. The Brazilian view of its responsibility focuses on the comparatively small set of emissions associated with the extraction and refining of oil and gas, attributing other greenhouse gas emissions to end users. This is also the standard accounting of the UNFCCC, but it is one that has allowed emissions to increase worldwide. Treating oil demand as beyond Brazil's control prevents a serious discussion about when and how to begin scaling back investment in fossil fuels so as not to create unprofitable stranded assets, a problem not just for climate change but for the Brazilian

economy as well. Finally, the value of increased oil and gas production must be set against other potential environmental costs, like biodiversity and water quality losses in the Amazonian region and climate change impacts.

### **Key opportunities:**

#### **Reducing fossil fuel subsidies**

Brazil is the host of major global gatherings in 2024 and 2025, with the G20 and COP30 meetings at the top of the list. These are opportunities to show global leadership through domestic action. One option would be for Brazil to propose new initiatives to reduce its own fossil fuels subsidies,<sup>25</sup> providing an incentive for other countries to do the same. Reducing subsidies is politically difficult, but Brazil grants lower subsidies than many other members of the G20.<sup>26</sup>

#### **Promoting green innovation**

Another opportunity consists in giving more concrete form to official claims that revenues from petroleum production will be used to support the energy transition. Oil wealth could potentially help spur Brazil's green economic transformation and support efforts to curb deforestation. There is already some momentum in both respects. Besides Petrobras' research activities in clean energy technologies such as offshore wind, carbon capture, utilization and storage, green hydrogen, and advanced biofuels, the ANP requires that oil companies spend 1% of exploration and production revenues on R&D activities. A 2021 government resolution mandates that the ANEEL and the ANP prioritise these and other clean energy technologies in their R&D policies<sup>27</sup>, which is arguably supporting domestic innovation.<sup>28</sup> Petrobras has also been supporting innovation through its collaboration with the BNDES in the creation of a venture capital fund for investment in clean energy technologies. Although these initiatives can support Brazil's green economic transformation, they will have to overcome the gap between scientific research on new technologies and their market deployment, which has often stymied the country's innovation efforts.<sup>29</sup>

#### **Linking oil revenues to forest conservation**

Besides using the oil and gas sector's capital and technology to foster green innovation, there are incipient efforts to link oil revenues to forest conservation. Petrobras collaborates with BNDES in the "Floresta Viva" (Living Forest) initiative, which aims to allocate up to USD 100 million to reforestation projects.<sup>30</sup> It also contributed to the Amazon Fund in the 2000s. Governors from the Amazon region have recently made requests for Petrobras to finance environmental conservation.<sup>31</sup> At a larger scale, at COP28, the Brazilian government proposed the creation of a "Tropical Forests Forever Facility" that would provide payments to countries in the Global South for forest conservation. At the G20 Finance Ministers meeting in July 2024, this proposal was fleshed out with ideas on how to combine public,

private and philanthropic capital to finance up to USD 125 billion in forest protection<sup>32</sup>. Such a mechanism has prompted proposals to introduce a global tax on oil to finance forest conservation.<sup>33</sup>

### **The role of fiscal policy**

Both the overhaul of Brazil's innovation ecosystem and oil taxation to finance forest conservation are likely to face significant political economy challenges. Instead, fiscal policy instruments might create incentives that are easier to introduce. A carbon tax on upstream oil and gas production, as pioneered by Norway, could help reduce the emissions intensity of such activities, which has been recognised as an important goal by the MME.<sup>34</sup> Such a tax would improve Brazil's competitiveness in the global markets, which are expected to prize "green" credentials, as well as enable the lowering of taxes on activities that are better aligned with climate goals.<sup>35</sup> By not allocating these revenues to specific budget lines, the tax would also preserve the flexibility of fiscal policy. In addition, if coordinated internationally, it could help forestall revenue losses from the future introduction of carbon border adjustment mechanisms.<sup>36</sup>

### **Decision moments**

Internationally, hosting COP30 and participating in COP29 as part of the troika, alongside the G20 presidency, mean that Brazil will have to develop meaningful environmental proposals to present to the international community. The government may want to avoid the contradictory messaging of COP28, when it announced the entry into OPEC+ (Organization of the Petroleum Exporting Countries) as an observer whilst trying to burnish its green credentials. Although the Ministry of the Environment and Climate Change has been working on proposals for COP30, there might be scope for increasing coordination with other ministries in designing initiatives explicitly focused on the oil and gas transition.

With Brazil's energy transition plan currently being elaborated by the MME, and with the change in command at Petrobras in early June, the present moment offers promising opportunities for domestic policy impact. Moreover, the Ministry of Finance is yet to divulge the final version of its Ecological Transformation Plan, which is the government plan with the greatest potential to integrate climate, energy, and industrial policy. BNDES has also been active in supporting the energy transition and could work with the other actors in setting up the platforms needed to finance green innovation and forest conservation.

Finally, fiscal measures to support the transition will be most effective if coordinated internationally. In the bottom-up spirit of the Paris Agreement, an upstream emissions tax does not require full-scale international cooperation but can be kickstarted by agreements between two or three producer countries.<sup>37</sup> This could facilitate decisions on important details, such as the pricing of carbon and the sharing of tax revenues between oil exporters



and importers. Coordination between producers will also be necessary to negotiate with major oil importers in the Global North on the criteria for fossil fuel decline management. By hosting the G20 and COP30, and setting the example with its own domestic policies, Brazil could lead such an agenda coordinating with like-minded countries. This would also provide answers to domestic debates on the role of oil in the country's development strategy.

### Policy recommendations

Key policy actions that the Brazilian government could undertake to accelerate its transition away from fossil fuels and create greater prosperity in the process include:

- Reducing, or entirely removing, **fossil fuel subsidies**, particularly the tax exemption for importing and exporting goods for oil and gas exploration and drilling (Repetro)
- Strengthening **green innovation** policies drawing on the oil industry's capital and technology
- Increasing the size and ambition of the oil industry's contribution to **forest conservation initiatives**, including by promoting mechanisms at the global level
- Introducing **tax policies that address the environmental externalities from oil production**, with a view to using Brazil's G20 and COP30 leadership to promote similar policies among like-minded countries.

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