SUBMISSION BY OBSERVATÓRIO DO CLIMA TO THE COP30 PRESIDENCY ROADMAP FOR TRANSITIONING AWAY FROM FOSSIL FUELS IN A JUST, ORDERLY AND EQUITABLE MANNER

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Observatório do Clima is Brazil 's leading civil society network working on the climate agenda. It currently brings together 161 members, including socio-environmental organisations, research institutes and social movements. Its goal is to help build a decarbonised, equitable, prosperous and sustainable Brazil.

We welcome the COP30 Presidency's initiative to develop a roadmap operationalizing the COP28 commitment to transition away from fossil fuels in a just, orderly, and equitable manner, and we submit the following inputs in a spirit of constructive engagement. At COP28 countries agreed to transition away from fossil fuels with actions in this critical decade, we now need to implement the UAE Consensus ensuring coherence, coordination, and enforceable action.

This submission seeks to contribute for the COP30 Presidency's initiative addressing the questions and issues posed in the Presidency's call for contributions.

(a) What are the most critical barriers — whether physical, economic, financial, institutional, technological or social — preventing a transition away from fossil fuels?

COP28 provided a historic signal, but it lacked the "coordination and clear guidelines" needed to turn a high-level statement into reality. Without specific timelines and milestones embedded in CBDR-RC, the transition remains a vague future aspiration rather than a series of urgent, measurable actions. Political fragmentation and the lack of global consensus on transitioning away from fossil fuels continue to hinder effective action. This challenge is compounded by structural asymmetries, particularly in terms of financial resources, technical capacity, and access to technology, which constrain the ability of developing countries to design and implement viable transition pathways.
The following barriers to TAFF have been identified, and grouped by type:

Economic and financial

- **Energy transition delayed by short-term financial and political pressures:** Growing fiscal constraints and geopolitical uncertainty pressure vulnerable producer countries to develop new fossil fuel reserves, despite evidence that such assets may be economically unviable in the medium to long-term. Without strong supply-side governance, short-term market dynamics and vested interests will lead to a disorderly transition that causes avoidable damage to nature and communities and generates significant amounts of stranded assets.
- **Viability gap:** The absence of clear timelines to phase out new fossil fuel expansion, combined with expectations of declining oil demand and increasing price pressure in the coming decades, remains a significant barrier. As electrification and the uptake of alternative fuels advance globally, oil prices are likely to fall to levels that challenge the economic viability of high-cost projects, creating uncertainty and the risk of stranded assets. Likewise, developing reserves beneath key biodiversity and biocultural areas will not lead to long-term financial or political stability. For example, research in Colombia found that developing untapped reserves beneath the Amazon would generate billions of dollars in stranded assets under every IEA climate scenario. Leaving these reserves untapped would instead protect the area with the highest biodiversity value in the world, as well as nearly 70% of indigenous peoples and local communities whose territories overlap with fossil fuel concessions.
- **"Explore-to-finance" paradox**: Relying on expected future fossil fuel revenues to fund the energy transition remains a significant barrier by creating a fiscal dependency cycle that actually stalls the transition it claims to fund. This approach delays the immediate allocation of capital needed for low-carbon investments and increases exposure to economic risks associated with declining demand and uncertain revenues. By maintaining dependence on future fossil income, it reduces fiscal predictability and can hinder the timely mobilization of public and private financial resources required for the transition.
- **Financial and Structural Inequality:** Global South countries are currently trapped by unsustainable sovereign debt and disproportionately higher costs of capital, which act as a structural brake on their decarbonization efforts. While technologies for renewable energy have become cheaper, the "cost of money" remains prohibitively high for developing nations; they often pay interest rates that are several times higher than those in the Global North. Developing countries end up facing a double burden: they must address energy poverty and provide basic electricity to underserved populations while simultaneously trying to leapfrog fossil fuel dependency without the fiscal space to do so.
- **Capital Concentration:** Investment in the energy transition is heavily concentrated: around 90% goes to advanced economies and China, leaving many developing countries without sufficient capital to expand renewable energy. This imbalance is reflected in installed capacity: while developed nations have on

average over 1,100 watts of renewable capacity per person, low-income countries, especially in Sub-Saharan Africa, only have about 40 watts per capita. As wealthier regions continue to advance the transition, many developing countries are falling behind, including areas where basic access to electricity is still lacking. In fact, more than 666 million people worldwide remain without access to essential electricity.[1]

- **Broken Promises:** Gross underdelivery of climate finance by developed countries is a critical constraint for developing countries that need support – limiting their ability to invest in renewable energy systems and reduce dependency on fossil fuels. With the greatest historical responsibility for causing the climate crisis and largest economic capacity, they have clear obligations under the UNFCCC to provide finance to developing countries that need support. Current needs for international support, including mitigation, adaptation and loss and damage, are estimated to be in excess of $1 trillion per year, but the latest reported contributions from developed countries for 2022 state mobilised finance only reached US$115 billion – and the true figure may be closer to US$28–35bn according to estimates.[2] Meanwhile, the agreed goal for 2035 is only $300 billion "from all sources". Public finance is needed to provide resources for renewable energy system transformation, such as grid infrastructure and energy storage, as well as broader economic diversification and transformation. In particular, in lower income countries that are highly dependent on revenues from fossil fuels for public services, employment and investment; and those with limited access to renewable energy.
- **Fiscal and Market Distortion caused by the persistence of harmful fossil fuel subsidies:** The persistence of fossil fuel subsidies, combined with the absence of clear criteria and timelines for their reform, distorts markets. According to the IMF, a staggering $725 billion in public revenue was spent or foregone in 2024 to support fossil fuels – a figure that underscores the urgent need for progressive fiscal reforms to secure a just transition. By artificially lowering the cost of coal, oil, and gas, these subsidies create a distorted market environment. This is a massive disincentive for clean energy, discouraging investment in low-carbon alternatives and locking in carbon-intensive consumption patterns. The challenge is exacerbated by a "transparency gap" – without standardized national inventories or a coordinated international framework for subsidy phase-out, many of these financial flows remain hidden or poorly defined. This lack of accountability hinders the effective reallocation of capital and delays the essential alignment of global financial flows with the 1.5°C goal. Ultimately, until these subsidies are repurposed into direct support for renewable energy and social safety nets, they will continue to serve as a taxpayer-funded barrier to a just and timely energy transition.

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[1] World Bank, *Tracking SDG 7: The energy progress report 2025*

[2] Oxfam, *Climate Finance Shadow Report 2025*

- **Risk of replicating a colonial extractive logic:** The global shift toward renewable energy is dependent on the extraction of physical resources—such as copper for transmission, lithium for batteries, and components for solar panels— , yet the current methods of sourcing these materials often devastate ecosystems and violate human rights. The energy transition must not deepen global inequality by exploiting the Global South to fuel the shift to renewables.
- **Food System Fossil-Fuel bottleneck**: The transition away from fossil fuels involves fundamentally decoupling our global economy and modern way of life from volatile hydrocarbon markets. This 'structural lock-in' is particularly dangerous in our global food system, which currently relies on fossil fuels for productivity, specifically in the form of synthetic nitrogen fertilisers. Recent geopolitical conflicts have highlighted that disruption to these fossil fuel markets poses a far greater existential threat than merely a shortage of fuel for transport; it directly threatens global food security.

Policy instruments and market mechanisms

- **Lack of Sector-Specific Policy Granularity:** A key barrier is the lack of coordinated and differentiated policy frameworks that account for the diversity of industrial subsectors. Governments must define clear timelines, sector-specific strategies, and consistent regulatory signals to guide the replacement of fossil fuels with alternatives such as electrification, green hydrogen, or biomass, ensuring that the transition reflects the specific characteristics of each industrial context.
- **Lack of an enabling environment for renewable technology:** We also have inadequate legislative frameworks and support measures to facilitate the rapid development of renewable energy technologies in the power and transport sectors.
- **Absence of Mandatory Exclusion Zones:** The continued expansion and persistence of fossil fuel exploration and production in socioenvironmentally sensitive areas or in “carbon bomb” projects remains a major barrier. This reflects the need for governments to establish and enforce clear criteria and regulatory frameworks to prevent new projects and guide the phase-out of existing operations in those regions.

Institutional and governance frameworks

- **Legal and Normative Incoherence between international climate obligations and domestic execution.** States are failing to translate high-level international law — including the Paris Agreement, the COP28 decision, and the advisory opinions of the International Court of Justice (ICJ AO),[3] the Inter-

[3] ICJ AO affirms that all states have a duty to prevent significant climate harm through stringent due diligence, acting in accordance with equity and the principle of common but differentiated responsibilities

American Court of Human Rights and the International Tribunal for the Law of the Sea — into binding national actions and implementation measures.

- **Institutional gaps**: The absence of dedicated regional mechanisms within existing frameworks such as the Amazon Cooperation Treaty Organization (ACTO) to coordinate and advance energy transition efforts, limits the potential for coherent regional action. Several countries, including in the Amazon region, remain highly dependent on fossil fuel revenues, creating significant fiscal and development constraints. This dependence is further reinforced by the recent discovery of new oil and gas reserves, which deepens economic reliance on extractive sectors.
- **Capture of legislative processes by entrenched fossil fuel interests**: A significant yet often opaque barrier to the global energy transition. Corporate lobbies leverage their financial power to influence national laws, effectively securing legal and fiscal lifelines for the industry. This manifests globally and nationally as a strategic effort to delay phase-out timelines, weaken carbon pricing mechanisms, divert public funds toward "false solutions" such as geoengineering and bridge fuels, or maintaining old fossil fuels structures. By embedding fossil fuel longevity into national legislation, these interest groups make the transition appear more expensive and complex than it truly is.
- **Lack of political leadership,** especially from rich nations, slows the fossil fuel phase out. National climate targets are dangerously off track for 1.5°C. Legally binding targets to limit production and consumption with rapid decline by 2030 are also lacking and countries continue to grant new licenses and subsidies. This may constitute an internationally wrongful act, according to the International Court of Justice.

Supply-side perspective

- **Path dependency:** Existing and new fossil fuel infrastructure and associated financial investments have created structural lock-in across energy systems. Long-lived assets such as pipelines, power plants and export terminals encourage the continued use of fossil fuels, delaying investment in renewable alternatives and increasing the risk of large quantities of stranded assets.
- **Expansionist hypocrisy:** Global North producers – US, Canada, Norway, and Australia – have increased oil and gas production by nearly 40% since the adoption of the Paris Agreement, while continuing to grant new licenses and expand export infrastructure.[4] (Oil Change International, Planet Wreckers report, 2025).

Just transition and differentiated pathways

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and respective capabilities (CBDR-RC), while protecting the human rights of present and future generations.

[4] Oil Change International, Planet Wreckers report, 2025

- **Institutional and Systemic Fragility:** Inadequate policies and institutions for a just transition are a major barrier. The transition is not merely a technical switch, but a profound socio-economic challenge that current institutions are ill-equipped to handle. Without strong, multi-level governance that promote policy alignment and implementation of just transitions, the process risks collapsing under the weight of fiscal instability and social conflict.
- **Reductionist Approach to Energy Policy:** Currently, most energy transition policies do not fully consider social and environmental elements needed for them to be just. Such policies must consider justice internationally, in light of CBDR-RC and historical responsibilities, as well as domestic inequalities. A just transition demands inclusive policies, developed in collaboration with workers, consumers, Indigenous peoples, people of African descent and affected communities, and must include social safety nets, environmental safeguards, and free, prior, and informed consent.

(b) What potential levers, whether economic, financial, institutional, social or technological, exist for accelerating the implementation of the transition away commitment?

A just, orderly and equitable transition away from fossil fuels involves a combination of financial, technological, and policy instruments that already exist, but which have never been deployed at scale in the global economy. This group has identified some of the key levers to implement TAFF, grouped by type and presented below:

Economic and financial

- **Reforming global financial architecture and implementing fiscal policies to enable a just energy transition:** Reforms to the global financial architecture compatible with TAFF must include: fair and transparent sovereign debt cancellation and restructuring mechanisms; increased grant-based climate finance; reforms to international tax, trade and investment rules that constrain policy space for energy transition strategies. Governments should implement the following fiscal measures with the necessary planning: (i) phase out fossil fuel subsidies that distort energy markets; (ii) redirect public funds currently supporting fossil fuel production and consumption towards renewable energy, grid infrastructure, non-fossil-based public transport, and social protection programmes; (iii) implement higher profit taxes on fossil fuel companies; (iv) introduce fossil fuel extraction levies; (v) increase taxes on the super-rich.
- **Aligning financial flows and institutions with a low-carbon economy:** In line with Article 2.1c of the Paris Agreement, financial institutions also need to align all financial flows to a low carbon economy. Thus, they must end all fossil fuel funding, including infrastructure, and strong guidance and regulation must be given to international funds and other actors of the finance ecosystem, including credit rating agencies, to avoid penalizing first movers. New methodologies assessing climate risk and not only the cost of inaction but also the cost of carbon-intensive activities and the negative externalities they cause, including overarching social and economic impact, should be implemented to redirect financial flows to a low carbon economy.
- **Aligning fiscal instruments and international frameworks with climate and finance goals:** The Roadmap should reference key international instruments, including the ratification of the UNFCITC (due in 2027) and the implementation of national-level tax instruments such as surtaxes on fossil fuel company profits and wealth taxes. It should also highlight the IMO net-zero framework, the first global initiative to combine mandatory emissions limits with GHG pricing across an entire industry sector without relying on offsets. This framework includes the IMO Net-Zero Fund, which will collect pricing contributions to reward low-emission ships; support innovation, research, infrastructure, and just transition initiatives in developing countries; fund training, technology transfer, and

capacity building; and mitigate negative impacts on vulnerable States, including Small Island Developing States and Least Developed Countries.

Demand-side perspective

- **Setting decarbonization targets aligned with a 100% renewable vision:** Setting sector-specific decarbonization targets for transport and industry, aligned with a 100% renewable vision, can guide the transition by providing clear direction for investment, technology deployment, and infrastructure development. These targets can drive the adoption of electrification, sustainable fuels, and efficiency improvements, while enabling coordinated planning across sectors and supporting the progressive phase-out of fossil fuel use in key areas of energy demand.

Supply-side perspective

- **Reorienting national oil companies' strategies toward energy transition goals:** This requires aligning their investment plans with ambitious climate targets and declining demand scenarios. It includes prioritizing investments in low-carbon energy sources, such as advanced biofuels and other clean alternatives, as well as diversifying their core business models. It also involves effectively reducing operational emissions without relying on offsetting mechanisms and supporting the decarbonization of logistics and transport, helping to scale up low-carbon solutions and accelerate the transition.
- **Transitioning to 100% renewable electricity systems:** Achieving this goal requires restructuring power sectors to accommodate increasing shares of variable renewable energy. This involves modernizing regulation, improving forecasting models, and updating dispatch rules so that system operation reflects the characteristics of variable generation. To avoid curtailment and ensure reliability, countries must scale up energy storage and transmission infrastructure while implementing demand-side mechanisms that align electricity consumption with variable supply. Policies such as dynamic tariffs and time-based electricity pricing incentivizes consumers across all sectors to shift demand and provide flexibility to the grid. Achieving this transformation also requires revising electricity market designs to incorporate the value of time, flexibility, and system responsiveness. This transition demands financial resources, institutional capacity and political commitment.
- **Sustainable expansion of biofuels through integrated policies:** Where contextually appropriate, structuring integrated policies for the sustainable expansion of biofuels can accelerate the transition by aligning production targets with climate goals and reducing reliance on fossil fuel derivatives. This includes promoting zero-deforestation supply chains, the recovery of degraded lands, and the alignment of feedstock production with local environmental and social conditions. Strengthening research, development, and innovation in advanced

biofuel pathways, alongside the gradual conversion of refineries into biorefineries, can further support this shift.

- **Decarbonizing fertilizer production through renewable feedstocks and green hydrogen:** Food system fossil fuel dependence due to the concentration of agricultural input production in the Middle East highlighted another great risk of fossil fuel dependency. It is crucial that a roadmap beyond fossil fuels accelerates the development of fertilizers based on renewable feedstocks, which can be produced in a decentralized manner. In this context, scaling up investment in low-carbon hydrogen is key to enabling the local production of fertilizers. Fertilizer production could also serve as a transitional pathway in countries whose economies are highly dependent on oil and gas.

Technological solutions and innovation pathways

- **Expanding energy efficiency across industrial, residential, commercial, and transport sectors:** This plays a critical role in reducing overall energy demand and associated emissions. It can be achieved through the adoption of minimum energy performance standards, technological modernization, and process improvements, supported by targeted public policies. By lowering energy consumption, energy efficiency reduces pressure on energy systems, decreases reliance on fossil fuels, and creates cost-effective pathways for emissions reduction across multiple sectors.
- **Leveraging renewable energy potential in the industrial sector to accelerate the transition away from fossil fuels:** Building on the decarbonization targets mentioned above, this can be achieved, for example, through electrification, green hydrogen, and biomass. Governments must define clear, sector-specific strategies and timelines that reflect the distinct characteristics and energy needs of each industrial subsector.

Policy instruments and market mechanisms

- **Phasing out fossil fuel subsidies and implementing targeted fiscal measures:** Measures such as a surtax on fossil fuel company profits represent key economic levers to align financial flows with low-carbon pathways. Establishing clear criteria and timelines for subsidy reform can reduce market distortions and discourage fossil fuel consumption while generating fiscal space for clean energy investments. At the same time, profit-based taxation can mobilise stable public revenues to support the transition, reduce reliance on volatile fossil fuel income, and enable investment in low-carbon technologies and infrastructure, including in fossil fuel-dependent economies.
- **Redirecting subsidies and implementing progressive fiscal reforms to support equity and a just transition:** The Roadmap must address the global redirection of subsidies toward low-carbon and resilient energy sources, while explicitly considering energy access and inequality. Beyond improving fiscal efficiency, progressive fiscal reforms are essential to ensure a fair distribution of

transition costs and benefits, in line with CBDR-RC principles. This includes using revenues from fossil fuel taxation to support loss and damage, mitigation, and adaptation, as well as enabling economic diversification in fossil fuel-dependent economies. Given the disproportionate carbon footprints and wealth concentration at the top, coordinated global wealth taxation can further strengthen public revenues and support international climate finance.

- **Implementing a moratorium on new oil and gas exploration licenses:** This can help redirect investment flows away from fossil fuel expansion and toward low-carbon alternatives.
- **Implementing Fossil Free Zones (FFZs):** These or similar rights-based, supply-side policies provide a concrete first step in implementing a just and orderly TAFF. They are proven responses that prioritize high-biodiversity areas, important carbon sinks, and the territories of Indigenous Peoples and local communities to halt fossil expansion and phase-out production. FFZs strengthen TAFF governance by putting human and environmental rights at its core, empowering subnational governments and right-holding communities. They can leverage existing policies like Protected Areas, land tenure recognition, licensing rules and territorial planning. Meanwhile, they mitigate stranded asset risks by ending the development of reserves with higher capital and operational costs. Several precedents show how FFZs are politically viable.

Institutional and governance frameworks

- **The Antalya Call to Fossil Fuel Roadmaps:** Building on the COP30 Presidency's TAFF roadmap, a coalition of willing countries should publicly commit by COP31 to develop national TAFF roadmaps in 2027– The Antalya Call to Fossil Fuel Roadmaps – on the leaders summit or at the Action Agenda, and advocate for all countries to join. These national plans/roadmaps must address production and consumption, integrating climate policy and economic planning, aligned with the 1.5°C goal. These should be developed by 2027 in an implementable format, with the highest possible ambition, in line with CBDR-RC, and grounded in transparency, inclusive participation, and monitoring, evaluation and learning (MEL). Plans should include a moratorium on new fossil fuel exploration and licensing, legally binding timelines for the decline of production, strategies for diversifying the economy in dependent regions, the expansion of renewable energy and energy efficiency, and the needs for climate finance mobilization. These relevant implementation experiences should be shared through existing UNFCCC channels, such as the UAE Dialogue, the Global Implementation Accelerator, the Mitigation Work program Dialogues and others, and be considered as inputs to the next round of GST (2027/2028).
- **TAFF Institutionalization:** Countries need to institutionalize the debate at UNFCCC with an agenda item on how to transition away from fossil fuels in a just, equitable and orderly way, accelerating action in this critical decade, but also to plan the actions beyond 2030 by GST2. This is the only forum where all countries

will be heard and the necessary legislative standards can be set to all. The Global Implementation Accelerator connects national plans, like NDCs, and roadmaps, enabling countries to pledge the necessary international cooperation to implement these plans faster and achieve the higher goal (when there is a range).

- **Aligning international and domestic transition frameworks with the Advisory Opinion of the International Court of Justice and other international court advisory opinions:** The Global Roadmap, and national processes as well, should consider the Advisory Opinions by the International Court of Justice, the Inter-American Court of Human Rights[5] and the International Tribunal of the Sea. The courts advised States on obligations to prevent rights violations by failing to avert further global warming including legal recognition of corporate obligations and the need of policy alignment to maintaining the global temperature rise at 1.5°c. This can serve as a key institutional and governance lever to strengthen accountability, enhance policy coherence, and guide the design and implementation of transition strategies across jurisdictions. Embedding principles such as due diligence, equity, and common but differentiated responsibilities into policy frameworks can support more consistent implementation, improve international cooperation, and reinforce a just transition through stronger safeguards, inclusive participation, and the fair distribution of costs and benefits.
- **Strengthening regional cooperation:** Considering the challenges in building global consensus around TAFF, as well as the structural barriers faced by countries in advancing just transition pathways, strengthening regional cooperation might be a valuable route to mitigate political divergences and accelerate implementation. For this regional planning addressing structural asymmetries across the region, particularly in terms of technical capacity, financial resources, and infrastructure is needed.
- **Agreeing to a fossil-fuel non-proliferation treaty:** Despite scientific consensus on the need to phase out fossil fuels, no international instrument regulates production. The Paris Agreement contains no explicit provisions governing fossil fuel supply, and further progress through the UNFCCC has been blocked by its consensus-based decision-making structure. Without a legally binding instrument on fossil fuels, continued expansion will lock in emissions that undermine hard-won progress on demand-side action and emissions reduction, while an unmanaged and inequitable phase-out risks imposing the greatest costs on those least responsible and most vulnerable. This points to the need for a

[5] The Inter-American Court of Human Rights, on its landmark Advisory Opinion OC-32/25, confirmed that States must act with enhanced due diligence to comply with their obligations to prevent environmental harm and protect human rights in the context of the climate crisis.The enhanced due diligence includes: 1) identification and detailed assessment of the risks; 2) adoption of proactive and ambitious preventive measures; 3) use of the best available science to design and implement climate actions; 4) consider the integration of the human rights perspective; 5) permanent and adequate monitoring of the effects and impacts; 6) strict compliance; 7) transparency and accountability; 8) appropriate regulation; 8) enhanced international cooperation.

dedicated international legal instrument on fossil fuel phase-out: one that complements the Paris Agreement by addressing climate change at its root source, codifies and clarifies existing obligations, and provides the institutional architecture needed to establish and govern the cooperative mechanisms outlined above. Such an instrument would fulfil the two-track multilateralism vision of the COP30 Presidency by operating alongside existing frameworks — not in competition with them — and could be designed as a high-ambition coalition open to all willing states, with the normative effect of stigmatising continued expansion even for non-parties.

Just transition and differentiated pathways

- **Ensuring a just and differentiated transition aligned with 1.5°C pathways:** The transition must be urgent and aligned with 1.5°C pathways, with developed countries taking the lead in providing finance and support to developing countries, particularly those with limited capacities. The pace of transition will vary according to countries' levels of development, historical responsibility, economic capacity, and opportunities for renewable energy deployment, and will depend on adequate financial flows within and between countries. Lower-income countries that are highly dependent on fossil fuels must have the support and policy space to transition without compromising essential services and development needs. To be just, the transition must protect rights and strengthen communities. Policies should reflect the obligations clarified by international advisory opinions and uphold equity and justice, ensuring distributive justice through the fair sharing of costs and benefits; procedural justice through meaningful participation of Indigenous Peoples and local communities; and restorative justice by addressing the disproportionate harms caused by fossil-fuel-based development and avoiding the reproduction of inequality.
- **Grounding the transition in human rights, equity, and inclusive participation:** The transition must be grounded in human rights, equity, participation, and intergenerational justice. It requires the meaningful inclusion of women, Indigenous peoples, people of African descent, workers, and local communities in decision-making, alongside strong social and environmental safeguards to reduce harms and ensure the fair distribution of benefits, including equitable access to energy. A just energy transition should strengthen community resilience, avoid reproducing structural inequalities, and promote the redistribution of power and economic opportunities. It must support energy and resource sovereignty, responsible sourcing, improved energy efficiency, and stronger human rights and labour protections, supported by transparent supply chains. Benefits should be equitably shared, particularly with workers, Indigenous peoples, and Global South communities that have historically borne the burdens of extractive systems. Where mining and manufacturing take place, host countries and communities should be the primary beneficiaries.

- **Providing highly concessional finance and mobilizing fiscal resources for just transitions:** The provision of highly concessional finance from developed to developing countries, particularly those most vulnerable to climate change and most dependent on fossil fuels, is an essential component of a just transition. In parallel, taxing fossil fuel company profits in developed countries offers an opportunity to redirect financial flows from polluting activities toward supporting just transitions globally.
- **Providing technological support to enable just transitions:** The provision of technological support from developed to developing countries, particularly those most vulnerable to climate change and most dependent on fossil fuels, is an essential component of a just transition.
- **Strengthening socioenvironmental safeguards to support a just transition:** Strengthening and effectively enforcing robust socioenvironmental safeguards is a key lever to accelerate the transition, ensuring that the expansion of renewable energy and other alternatives aligns with ecosystem protection and the rights of Indigenous Peoples and traditional communities. This includes guaranteeing free, prior and informed consultation, increasing transparency and accountability in project implementation, and building social legitimacy to reduce conflicts, avoid delays, and support a more equitable and sustainable transition. The transition also needs to consider climate resilience and uphold the agreed global goals under the Convention on Biological Diversity.
- **Integrating workers into the energy transition through reskilling and job creation:** Integrating workers from the fossil fuel sector into the energy transition requires targeted training, reskilling programs, and incentives for green job creation to support workforce adaptation to structural changes in the economy. Creating new pathways for productive inclusion helps reduce transition-related disruptions, support employment continuity, and facilitate the shift toward low-carbon sectors.
- **Integrating social electricity tariffs to address energy poverty and support the transition:** Governments should integrate social electricity tariff programs into national just energy transition strategies as a core instrument to address energy poverty and ensure public support for decarbonization.

(c) What country, regional or sector roadmap experiences, best practices, and lessons learned can be shared?

We would like to recommend that the COP30 presidency to incorporate in the Roadmap the findings of the report "Progressing the Transition Away From Fossil Fuels: A guide for policy-makers working on TAFF roadmaps and plans"[6] and "Progressing the Transition Away From Fossil Fuels: Lessons from case studies"[7] co-authored by International Institute for Sustainable Development, E3G, ECCO, Observatório do Clima, and the Sustainable Economics and Finance Association. In these combined publications we focus on the practical question of how to design effective roadmaps for transitioning away from fossil fuels. Its primary contribution is a structured review of selected case studies of existing initiatives, alliances, and national processes. These examples provide concrete lessons on what works, where gaps remain, and how principles such as scientific alignment, justice, national ownership, and coordinated international support can be operationalized. Drawing from these case studies, that are detailed on the second link, the brief identifies core principles, essential planning elements, and international coordination needs that should underpin TAFF roadmaps.

In addition to this contribution, we would like to also offer the following:

Country experience:

- Brazil's Social Electricity Tariff (Tarifa Social de Energia Elétrica, TSEE), strengthened through recent regulatory reforms, provides discounted electricity tariffs for low-income households registered in the national social registry (Cadastro Único) and currently reaches over 17 million households, making it one of the largest energy access protection mechanisms in the world. The updated framework expands the policy's potential to protect vulnerable populations during the transition away from fossil fuels, particularly in a context of energy price volatility and growing climate impacts. This initiative can serve as a reference for other countries, although further improvements are needed to ensure its financial sustainability, coverage, and efficiency.
- To support Brazil's national oil company Petrobras to transition from an oil company to a renewable energy company without losing its value or influence on the country's future direction, Brazilian civil society organizations published the policy brief "A Petrobras de que Precisamos".[8] According to the Climate Observatory (OC) network, Petrobras should present a timeline for aligning its energy policy and strategic planning with the Paris Agreement and incorporate guidelines for a just transition. Even assuming an average annual growth rate of 2.1% for Brazil's GDP through 2050—which will drive up demand for energy and

[6] https://www.iisd.org/system/files/2026-03/progressing-transition-fossil-fuels-guide.pdf
[7] https://www.iisd.org/system/files/2026-03/progressing-transition-fossil-fuels-case-studies.pdf
[8] https://oc.eco.br/wp-content/uploads/2025/09/OC_Estudo-Petrobras_DIGITAL.pdf

consumer goods—the study identifies technically feasible pathways for the energy sector to reduce its emissions by about 80% compared to 2022 levels. Among the key points advocated for Petrobras transformation, the following stand out: (i) aligning Petrobras' business plan with the most ambitious goals of the Paris Agreement, Brazil's NDC and the National Mitigation Strategy (Climate Plan), as a minimum requirement, ideally seeking to go beyond these targets by implementing government environmental policies that foster a low-carbon economy and promote a just energy transition; (ii) prioritizing investments in low-carbon sources to diversify the company's core business; (iii) reallocate planned investments in new refineries to increase the share of new fuels in the energy mix, which should be linked to a reduction in domestic demand for oil and gas derivatives; (iv) seek a real reduction in GHG emissions from the company's operations, without relying on measures that lack transformative impact, such as the purchase of carbon credits and carbon capture technologies; (v) leverage this experience to invest in biofuels, particularly second- and third-generation biofuels, green diesel (HVO), and SAF; (vi) support the decarbonization of freight logistics and passenger transportation.

Regional experience:

- The concept of Fossil-Free Zones (FFZs), also referred to as Life Zones, represents an emerging best practice by offering a concrete, place-based entry point toward a just, orderly, and equitable transition away from fossil fuels in the Amazon region. Across the region, oil and gas concessions overlap with approximately 12% of the territories of Indigenous Peoples and local communities, exposing their livelihoods and surrounding fragile ecosystems to significant risks from extractive activities. In this context, FFZs provide a practical mechanism to halt further fossil fuel expansion while supporting the gradual phase-out of existing production. Several precedents show how FFZs are politically viable: Colombia banned fossil expansion in the Amazon, Guatemala in the Mayan Biosphere Reserve, and Mexico implemented 100 million hectares of similar Safeguard Zones. This approach also demonstrates strong potential to align transitioning away commitments with broader environmental and social objectives, including efforts to curb deforestation, protect biodiversity, and safeguard critical carbon sinks. At the same time, it promotes human and environmental rights, particularly those of Indigenous Peoples and local communities, in line with the principles discussed under COP30 within the Just Transition Work Programme (JTWP). A key lesson is that spatially targeted, rights-based policy instruments such as FFZs can serve as politically feasible and high-impact starting points, generating co-benefits across climate, biodiversity, and social agendas while building momentum for broader transition strategies.

Sector experience:

- The expansion of community solar collectives is a key strategy to democratize access to renewable energy and accelerate the transition away from fossil fuels while addressing energy poverty. These collectives enable groups of households—particularly low-income families, tenants, and communities without adequate rooftop infrastructure—to jointly benefit from shared solar generation systems. Electricity produced by community solar installations can be allocated through virtual net metering schemes, reducing electricity bills and expanding participation in the clean energy transition. The experience of the "Coletivo Nosso Sol" over a two-year period has demonstrated its impact: more than BRL 60,000 in savings for 100 families, 37 kg of CO_2 emissions avoided, and 15 community leaders trained. These results highlight a promising pathway toward a more just energy transition.

(d) How can a just, orderly and equitable transition best reflect the diverse realities of countries at different stages of development and different degrees of dependence on fossil fuels?

We recommend that the COP30 presidency to incorporate in the Roadmap analysis the following concerns:[9]

- **The framework for differentiated transition pathways**: Equity must guide the design and implementation of transition timelines, reflecting different national circumstances, historical responsibilities, and development needs in line with the principle of Common But Differentiated Responsibilities and Respective Capabilities (CBDR-RC). Consequently, countries' efforts to transition away from fossil fuels should be differentiated in pace and sequencing, specifically accounting for their degree of economic dependence on fossil fuel revenues and the inherent capacity of their economies to overcome such reliance. This framework requires that developed countries—possessing the greatest historical responsibility and economic strength—take the lead through earlier and deeper emissions reductions. Simultaneously, they must provide the scaled-up, predictable, and grant-based finance, technology transfer, and capacity-building necessary to ensure all transition pathways remain aligned with 1.5°C targets without compromising the developmental imperatives of the Global South. And to properly explore those pathways we need to be careful with the choice of indicators in any analysis.
    - We must assess consumption and extraction separately. Transitioning away from fossil fuel consumption applies to all countries, and from fossil fuel extraction just some countries. We must be careful to prevent perverse outcomes when assessing countries, especially for developing countries with high dependence on imported fossil fuels. Conflating them in a single set of indicators distorts the picture and risks penalising the most vulnerable importers. For a transition to be truly just, orderly and equitable, we need multiple indicators that assess consumption and extraction separately.

[9] These recommendations were based primarily on the following references:
Civil Society Equity Review (2023) An Equitable Phase Out of Fossil Fuel Extraction: Towards a Reference Framework for a Fast and Fair Rapid Global Phase Out of Coal, Oil and Gas. Manila, London, Cape Town, Washington, et al.: Civil Society Equity Review Coalition. https://equityreview.org/extraction-equity-2023/report
Muttitt, Greg and Sivan Kartha (2020) "Equity, Climate Justice and Fossil Fuel Extraction: Principles for a Managed Phase Out" in Climate Policy, 1–19. https://doi.org/10.1080/14693062.2020.1763900
Muttitt, G. and Winkler, H. 2026. 'Transitioning away from fossil fuels in a just, orderly and equitable manner: A quantitative overview of countries' different national circumstances, fossil fuel dependence and opportunities for flourishing post-fossil economies.' PRISM Working Paper 2026-2. Cape Town: Policy Research on International Services and Manufacturing, University of Cape Town.

    - We need plural emissions indicators that reflect genuine responsibility, grounded in per-capita consumption and cumulative historical emissions – the metrics most relevant to equity. Indicators that reflect absolute emissions or emissions per unit of GDP embed inequality into the framework.
- **The inseparability of transition pace and financial support.** A just, orderly and equitable transition requires more than differentiating the pace of change between countries — it requires integrating that differentiation with robust international climate finance. For many countries, the pace of transition cannot be determined without knowing what resources are available to support it; and given the urgency of the climate crisis, most will need to move faster than would be fair without external support. Addressing pace and finance separately undermines both equity and political viability. They must be treated as two sides of the same commitment.
- **The inseparability of transition pace and capacity:** The pace of transition should follow capacity, such as opportunities to install renewables, domestic inequalities and energy access, as well as dependency. Higher-income countries should transition the fastest because they have the financial resources to invest in it, but also because they can cut their consumption the most, since a disproportionate amount of their fossil fuel use is tied to discretionary and luxury consumption. The situation for lower-income countries is fundamentally different: their fossil fuel use is overwhelmingly linked to basic energy services and development needs, so rapid reduction is far more likely to cause social harm. A truly equitable approach recognises this asymmetry — expecting the most vulnerable to transition at the same pace as those with the most resources is not neutral, but unjust.

Taking all this into account, we recommend that the roadmap from COP30 Presidency shall seek to:

- find early wins where there are greater opportunities and benefits from transitioning, such as cheaper energy or improved energy security.
- recommends investing now to overcome entrenched dependence on fossil fuels, as economic diversification and structural transformation take time.
- differentiate timelines between countries, such that every country moves as fast as it can, understanding more time is needed in countries with greater dependence. On this some possibilities are:
    - **Developed countries with low dependence should go through a rapid phase-out without international support**. Some possible milestones are: Phase out coal by 2030, phase out oil and gas by 2035. No new extraction and significant reduction of existing extraction and production in the early 2030s.
    - **Developed countries with high dependence should go through a slower phase-out without international support.** Some possible

milestones are: Phase out coal, oil and gas by 2035. No new extraction and significant reduction of existing extraction and production in the 2030s.

    - **Developing countries with low dependence should go through a moderate-pace phase-out with international support.** Some possible milestones are: Phase out coal, oil and gas by 2040, considering CBDR-RC, development needs and domestic inequalities. No new extraction, particularly in the most socially and environmentally sensitive ecosystems, and significantly reduce extraction and production by 2040. The phase out must be supported by finance and other MOI from developed countries, particularly to LDCs and other vulnerable countries with low capacity to transition.
    - **Developing countries with high dependence should go through a slower phase-out with international support.** Some possible milestones are: Phase out all fossil fuel use and extraction by 2050, in line with net zero by 2050, considering CBDR-RC and development needs and inequalities. This phase out must be supported by finance and other MOI from developed countries, particularly to LDCs and other vulnerable countries with low capacity to transition.
- recommend the provision and mobilise finance and capacity-building support for low- and middle- income countries, to boost their capabilities to invest in and manage transitions.
- advocate for no new fossil fuel-consuming or -producing facilities and infrastructure, and instead focus investments on alternatives that reduce dependence.
- build inclusive international coalitions to provide peer learning and gain momentum, including both early-movers and those that need more time. Building domestic coalitions to create political support and engage stakeholders.