



# Crude Futures

National Oil  
Companies from  
the Global South in a  
Decarbonising World



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# The S-OIL Project: An Overview

# 1

S-OIL is an ambitious five-year comparative research project examining the changing role of national oil companies (NOCs) in low- and middle-income countries across Africa, Asia and Latin America, as these countries face multiple pressures in the framework of the decarbonisation of the global economy.

State-owned or state-controlled firms hold the majority of global oil reserves, account for a large share of current production, and provide the bulk of fiscal revenues for many of the most hydrocarbon-dependent economies of the Global South. Their corporate strategies, investment decisions and political alignments will make or break the energy transition.

Despite this centrality, NOCs in the Global South remain strikingly understudied. Most of the available literature has concentrated on privately owned supermajors, the experience of a few high-income oil exporters such as Norway or the Gulf countries, or isolated national case studies framed in narrowly institutional or financial terms. No transregional, comparative, ethnographically grounded inquiry into the political economy of state ownership in the oil industry currently exists. S-OIL was conceived to fill that gap.

## 1.1 Why this project, why now?

What makes this research both timely and, in some respects, overdue is a convergence of structural pressures.

The decarbonisation imperative is intensifying: under scenarios compatible with the Paris Agreement's 1.5°C pathway, the industry could be producing several million barrels a day in excess of demand by the end of this decade, with a substantial share of existing reserves classified as stranded assets or unburnable oil.<sup>1</sup>

The state has returned to centre stage in energy policy, after four decades in which

privatisation and market liberalisation were the dominant prescriptions across both the Global North and the Global South. And NOCs have consolidated their position as the dominant actors in global oil, with state-owned and state-controlled firms now surpassing the historic North American and European supermajors in production, reserves, and export volumes. The analytical and political significance of these companies has grown precisely as the policy and scholarly communities most focused on the transition have continued to overlook them.

## 1.2 Research questions and objectives

The project is organised around three interrelated questions. First, how does the restructuring of global and regional energy markets, together with the reconfiguration of state and civil society in oil-producing countries, shape decarbonisation at national and global levels? Second, what explains the very different levels of success and failure among state-owned oil companies in adapting or reconverting in the context of the energy transition? Third, how does the shift to a low-carbon economy affect the capacity of oil-producing countries in the Global South to meet pressing social, economic and political demands?

Three objectives structure the empirical and theoretical work: to appraise the changing nature, relevance and performance of state-owned or state-controlled oil companies; to assess the societal and developmental footprint of NOCs across the three regions; and to

critically evaluate whether and how these firms can be transformed or reinvented as drivers of a just energy transition.

A working assumption underpins the research design: the strategies and performance of NOCs are shaped by the country's current and short-term status as a net oil importer or exporter. Where reserves are flagging and extraction costs are high, the political space for reconversion and diversification opens; where reserves remain large and production costs are low, the incentives to extract the last drop of value from the existing asset base tend to prevail. Institutional quality, fiscal pressures, the relative strength of local and foreign chambers, trade unions and environmental organisations, and each country's position within global energy markets all make this basic pattern much more complex.

### 1.3 Work plan and analytical framework

S-OIL's work plan is structured across four interlinked work packages. WP1 is establishing a transregional baseline through systematic mapping, an international survey, and a structured review of existing databases, business intelligence reports, and the academic, policy and technical literature. WP2 will conduct a grounded comparative analysis of fifteen to twenty oil-producing countries in Africa, Asia and Latin America. Between ten and fifteen semi-structured interviews per country will be conducted with senior managers, government officials, parliamentarians, researchers, and representatives of organised labour, business and civil society.

WP3 will conduct in-depth ethnographic research on six to seven cases of transformative public ownership, with two to three cases per region, to be investigated by doctoral researchers. WP4 will run in parallel throughout, synthesising findings, refining the theoretical and conceptual framework, and producing the project's research outputs.

The analytical architecture is based on an adaptation of the FESPET framework, originally developed by researchers Judith Clifton and Daniel Diaz Fuentes at the University of Cantabria for the

comparative analysis of the internationalisation of multinational state-owned enterprises.<sup>2</sup>

Five dimensions structure the comparison: *financial* (F), examining the place of profit, fiscal contribution and capital allocation within the corporate mission; *environmental* (E), looking beyond corporate greenwashing at the actual environmental footprint of operations and the substance of any diversification into renewable energy; *social* (S), capturing the role of NOCs in employment, infrastructure and the provision of goods and services beyond their narrow *raison d'être*; *political-economic* (PE), attending to the position of these companies within national development projects and the wider geopolitical reordering of energy; and *technological* (T), considering the capacities of NOCs to develop, acquire or absorb the technologies that the transition will require, both in hydrocarbons and beyond.

Throughout the research project, the three criteria proposed by Erik Olin Wright for evaluating counter-hegemonic alternatives - *desirability*, *viability* and *achievability* - will be used to assess the transformative pathways that emerge from the empirical work.

### 1.4 Theoretical and epistemological bases

S-OIL is situated within a Marxist political economy tradition and engages directly with debates on rentier-state theory, dependency, just transition, and the state's role in industrial policy design and

implementation. The project draws on critical realism and cultural political economy as background ontologies and methodologically operationalises Michael Burawoy's extended case method. The

aim is to move beyond the case-study format that has characterised much previous research on NOCs, embedding the specific firm within the wider social formation that produces it and tracing the dialectical relations between corporate transformations and broader mutations in the global, regional and national political economy of energy. The project resists, on the one hand, the narrowly institutional framing of the existing literature on NOCs, and, on the other, the simplifications of the resource-curse paradigm, which collapses a variety of trajectories into a simple negative diagnosis.

The project's methodological features rest on an explicit epistemological position. The aim is to pursue critically engaged social science, in which the production of knowledge is meaningful

not only to the scientific community but also to political, labour, environmental and social actors who have a direct stake in the transition's outcomes.

This commitment is reflected in the composition of the Scientific Advisory Board, which brings together academics and practitioners with experience in scientific research, policy design, multilateral institutions and social movement organising; in institutional partnerships with research organisations across three world regions; and in planned dissemination through workshops, regional seminars, a major international conference, an open-access online database, infographics, documentary videos, a photo exhibition and a book manuscript.

## 1.5 The Team, institutional arrangements and international partners

The project is based at the Ekopol research group at the University of the Basque Country (UPV/EHU), the host institution. The Amsterdam-based Transnational Institute (TNI) is the project's co-beneficiary, providing institutional and logistical support, particularly for fieldwork and dissemination across the three world regions covered. Once fully formed, the S-OIL team will comprise the principal investigator, two postdoctoral researchers, and three doctoral candidates.

Fieldwork in the three world regions will be operationalised through formal collaboration arrangements with partner institutions. In Latin America, the project

works closely with INEEP (Brazil), FUNDAR (Argentina), and the Latin American Council of Social Sciences (CLACSO); in Africa, with the University of Cape Town and Stellenbosch; and in Asia, with Nazarbayev University in Kazakhstan and a network of researchers across Southeast and East Asia. These arrangements are designed to ensure that the comparative work remains anchored in the specific institutional, political and cultural contexts of each country, and that knowledge is co-produced with researchers and practitioners based in the regions under study, rather than imported from outside.

## 1.6 The inaugural seminar and this report

S-OIL was launched in March 2026, with an inaugural seminar at the University of the Basque Country in Bilbao. The seminar brought together over a hundred participants, including members of the Scientific Advisory Board, partner academics, doctoral students, trade-union strategists, former senior decision-makers from oil-producing countries, and researchers from the host university and TNI. Two thematic panels and a closing discussion mapped the analytical terrain the project will address over the next five years and generated the exchanges presented in this report.

The two chapters that follow present edited transcripts of the panels, which brought together scholars, oil industry experts, and trade-union strategists from three regions of the world to engage with

the analytical questions S-OIL has set for itself.

The exchanges preview many of the tensions the research will need to address seriously: between energy sovereignty and decarbonisation; between developmental imperatives and climate constraints; between the structural pressures of global capital markets and the political possibilities opened by public ownership; and between the technical and cultural dimensions of any transition that could plausibly be called just. The first panel discussed whose transition is at stake and on what terms; the second examined the role of national oil companies and whether the current trajectory can credibly be described as a transition at all.

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<sup>1</sup> Pellegrini, L., Arsel, M., Muñoa, G., Rius-Taberner, G., Mena, C., and Orta-Martínez, M. (2024). The atlas of unburnable oil for supply-side climate policies. *Nature Communications*, 15, 2318. <https://doi.org/10.1038/s41467-024-46340-6>.

<sup>2</sup> Clifton, J., and Díaz-Fuentes, D. (2023). How do state owned enterprise multinationals behave abroad? A multi-dimensional framework for analysis. *Journal of Economic Policy Reform*, 26(1), 67–81. <https://doi.org/10.1080/17487870.2022.2079509>



The sprawling Ecopetrol's refinery in Barrancabermeja, Middle Magdalena region, Colombia. Foto: Daniel Chavez.

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**Daniel Chavez:** State-owned or state-controlled firms hold the majority of global oil reserves, account for a large share of current production, and provide the bulk of fiscal revenues for many of the most hydrocarbon-dependent economies of the Global South. Their corporate strategies, investment decisions and political alignments will make or break the energy transition.





# Whose Transition?

# 2

The first panel brought together scholars from Africa, Europe, and Latin America to discuss the just transition, energy sovereignty, and the role of national oil companies in decarbonisation across the Global South. The conversation was moderated by **Donna Andrews** (University of Cape Town). The panellists were **Judith Clifton** (University of Cantabria), **Amir Lebdioui** (University of Oxford), **Yacob Mulugetta** (University College London), **Mark Swilling** (Stellenbosch University), and **Mabel Thwaites Rey** (University of Buenos Aires).

**Aitor Jimenez**, a law professor at the University of the Basque Country, contributed comments from the floor.

The transcript has been edited for clarity and reorganised thematically.

## 2.1 What Is a Just Transition, and for Whom?

### Donna Andrews

What the S-OIL project seeks isn't more of the usual same-old discussion, but critical engagement and robust debate. The first part of our conversation, on just transition and development in the Global South, begins with the premise that we need Global South voices and perspectives. Central to this project is clarifying what a just transition actually means. What does it mean for development? Who are we talking about when we invoke it? And which definition do we want to work with?

### Yacob Mulugetta

It's a real pleasure to be here in Spain, which, one might argue, retains some measure of political sanity in relation to what's happening elsewhere in the world, particularly in response to the ongoing catastrophe in Palestine and, more recently, the situation in Iran.

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“ *Central to this project is clarifying what a just transition actually means. What does it mean for development? Who are we talking about when we invoke it?* ”

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On just transition, there's a report that a group of us produced, focused mainly on Africa, in which we tried to capture what we understand the concept to mean.<sup>3</sup> The problem is that the idea of a just transition is far too often framed around what governments want, and governments from oil-exporting countries typically argue that oil and gas are transition fuels, particularly gas, and frame the debate within a North-South divide. People are

rarely at the centre of that discussion.

In the report, which we titled *Just Transition Visions from Africa*, we identified three often-overlooked dimensions. The first is energy sovereignty: the challenge isn't only to provide energy for industry or transport, but to ensure a more just distribution of resources across society, with people at the centre, not economic sectors. The second is food sovereignty. Food and energy are deeply interrelated, and about 80 per cent of the food consumed in much of Africa is imported. I was in Dakar two weeks ago and was genuinely shocked to walk into a supermarket called Ocean, used by people across social classes and owned by a single French family, and to see that roughly 95 per cent of its goods were imported. That's a food sovereignty crisis directly connected to how energy systems are organised.

The third dimension concerns production. Africa is a resource-rich continent, yet in the renewable energy revolution, it largely participates as a supplier of raw materials, an extremely extractivist position.

Capturing value higher up the supply chain requires long-term industrial policy thinking. Without it, the transition reproduces rather than transforms the existing structure. In short, just transition means starting with people first.

### Mark Swilling

South Africa was the first country to include a just transition in its NDC, its nationally determined contribution under the Paris Agreement. Most countries have followed. But in South Africa, the concept is used in at least four distinct ways, each

reflecting a different constellation of power.

The first position, articulated mainly by the banks, is to transition as quickly as possible to a renewables-based, decarbonised economy to reignite economic growth, with benefits assumed to trickle down. In practice, this is an unjust transition, yet it calls itself just. The second is the same basic idea, combined with welfare interventions to mitigate the negative impacts on coal workers and coal communities. 85 per cent of South Africa's energy comes from coal. This welfarist position is broadly shared by the government and international donors. The third position is that a just transition is a renewables-led reindustrialisation of the economy, an industrial policy focused on reallocating capital into productive investments to rebuild South Africa as an industrial economy. It's a radical proposition in a highly financialised economy where very little capital flows into productive investment; only 2 per cent of South Africa's pension fund capital goes into infrastructure, and we have the sixteenth-largest pool of pension funds in the world, larger than Spain's, yet 45 per cent of that capital leaves the country. That configuration of financial flows is anti-poor and deeply destructive of the working class. South Africa's just energy transition investment plan shifted the dial from the second to the third position, and the president, Cyril Ramaphosa, recently described the green economy as the country's greatest economic opportunity. The green industrialisation framework that underlies this idea challenges the existing structure of financial power.

The fourth position, articulated mainly by trade unions, radical NGOs, and social movements, holds that a just transition is

only possible in a post-capitalist environment. The coalition of forces required to shift the balance of power still needs to be built. My own work sits firmly between the third and fourth positions. It's progressive to emphasise the significance of just transition as industrial policy, but in the longer run, we need that shift in the balance of power if we're to think seriously about what a post-capitalist alternative looks like.

### **Judith Clifton**

First, I should say how delighted I am to be part of this project and that Daniel Chavez, a committed scholar, has been awarded the ERC Advanced Grant. I know how intimidating that process is. The bar is extraordinarily high, and we shouldn't forget how significant that is. I'm also pleased with the panel's topic.

When you ask social scientists what a just transition means, you get the kind of definitional proliferation we know well: "Just for whom?" "How do we know?" "On what grounds?" In the GreenPaths project, a Horizon Europe consortium of thirteen partners, including universities, the Transnational Institute, the Institute for Political Ecology, Friends of the Earth, and Oxfam, we deliberately chose not to settle on a single definition.<sup>4</sup> The plural in the name is intentional: there isn't one green path. Working alongside NGOs and civil society organisations embedded in activist movements has been genuinely challenging and, I think, genuinely productive in ways that purely academic settings aren't.

In European policy discourse, the just transition is almost always paired with the slogan "leave no one behind." What does that mean in practice? At its most generous, it means ensuring that the most vulnerable people in society aren't



Thoko Dlamini (left) and Lonhanhla Mthethwa, members of the Southern Africa Rural Women's Assembly (RWA). Mbeka, Shiselweni Region, Eswatini. Foto: Daniel Chavez.

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Judith Clifton: In European policy discourse, the just transition is almost always paired with the slogan “leave no one behind.” What does that mean in practice? At its most generous, it means ensuring that the most vulnerable people in society aren’t adversely affected by policies we should all be pursuing. But then you have to determine who is vulnerable and how resources will be shared.

adversely affected by policies we should all be pursuing. But then you have to determine who is vulnerable and how resources will be shared.

Theoretically, the concept can be unpacked across four dimensions: distributive justice, which concerns how costs and benefits are allocated; recognitional justice, which concerns whose knowledge and interests are acknowledged; procedural justice, which concerns who participates in decisions; and cosmopolitan justice, which concerns how obligations extend across borders and generations. Whether we think these things are being achieved, and how we'd know, is precisely what our case studies aim to address.

We have 15 case studies spanning entirely different sectors: lithium mining, coal mining, hydrogen, and climate finance, among others. As a preview of our findings, we haven't found the transition to be particularly just when you examine what has actually happened under the European Green Deal. That isn't to say nothing good has been done. Politicians have continued the Green Deal through COVID without particularly wavering, at least until recently, when a dilution of ambition has set in, partly driven by the demands of industrial policy. But much has been done in ways that can't easily be called just. The lithium case is a straightforward story of extractivism. The just transition fund, designed to support coal workers and communities, including in Spain, has been slow, and in many cases, the money simply hasn't reached those who need it.

### **Mabel Thwaites Rey**

A desirable just transition would be one that addresses the interests, needs, and demands of humanity as a whole, and

above all, those of the popular sectors. Justice here means justice against the private appropriation of energy resources for the sole purpose of profit.

We find ourselves in a genuinely terrible conjuncture. There's an additional element that complicates any prospect of a just transition: the development of artificial intelligence, which is generating an intense, runaway demand for energy globally, including for renewables, if this form of technological development is permitted to grow at the speed currently envisaged. We tend to think of AI as immaterial, as though it exists only in the cloud. But the material reality of this new form of technological development is that it consumes ever greater quantities of energy, generating an appetite for energy resources that fuels wars and the seizure of countries.

What began as a project for a negotiated, orderly transition between oil-producing countries and energy-consuming industries, in response to workers' questions about what will happen to our jobs and the plea not to be left behind, has become something far more turbulent. Oil-exporting countries in the Global South, many of which depend on resource exploitation for lack of other short-term alternatives, now face these crosscurrents simultaneously.

Rethinking the meaning of justice today must lead us to think not only about planetary justice, which is a legitimate demand, but also about not destroying the planet's inhabitants before the planet itself is destroyed. There's a drive for the violent appropriation of energy resources so intense that we risk losing our humanity before the planet is devastated by climate change.

## 2.2 An Externally Imposed Agenda? The Global South's Energy Dilemma

### Amir Lebdioui

There's a provocation worth posing to this project: from a purely technological standpoint, are renewable energies simply superior to oil? Where does our attachment to oil actually come from? Human civilisation is powered by energy, yet we persistently conflate energy with fossil fuels. Ethnography, a methodological approach at the core of the S-OIL project, is a genuinely productive way into that question. It connects to thinking about national oil companies in many of the countries this project examines. NOCs are custodians not only of energy resources but of something broader. Some countries, such as Mexico, have particularly few years of production remaining. That alone should raise serious questions about the wisdom of continued attachment to those reserves.

What's very clear, in terms of development, is that global decarbonisation, as currently structured, isn't simply leaving developing countries behind. It's actively pushing them further behind, eroding fiscal revenues, complicating job creation, and concentrating the gains of the energy transition in already-wealthy parts of the world. The argument that energy transitions produce net job gains is correct in aggregate, but the jobs aren't materialising in the places where existing jobs are being lost.

Developing countries are at particular risk. For a transition to be just, developing countries need genuine ownership of the plan. At present, in too many cases, we

have a donor-led model, with external agencies arriving to tell countries how their decarbonisation should proceed. I won't name specific cases in detail, but the way the German development cooperation agency operates is instructive: it goes everywhere with a plan for how others should decarbonise, designed to satisfy donors' wants rather than those countries' needs. Understanding what different perspectives are and finding common ground are essential.

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This connects to a book edited by Sabrina Fernandez, in which I had the chance to write a chapter.<sup>5</sup> What struck me about that book is that it brings together entirely different kinds of people to write: trade unionists, economists, sociologists, anthropologists, artists, photographers; there's even an art exhibition embedded inside the book, and the whole thing is open access. That kind of multivocal approach is exactly what the S-OIL project's design invites. Especially on progressive and ecological movements, this is where you find the most intense internal disagreement. Finding common ground across those disagreements isn't a luxury; it's methodologically essential.

In my work on how fossil-fuel-producing nations might own their transitions, I have identified three main channels. The first is what I call the resource linkage. Algeria, for example, is consuming a growing share of what it produces domestically, reducing what's available for export. In the Middle East, most gas plants rely on extremely inefficient turbines with enormous energy losses; upgrading to the most efficient available technology would free up substantial export volumes while meeting domestic needs. A domestic energy transition in those contexts isn't about producing green hydrogen for German customers; it's about securing your own energy future and, as a consequence, possibly freeing up resources for exports and reducing global oil costs.

The second channel is the fiscal linkage, which connects directly to Mark's point about industrial policy. Many producing countries have capital; the problem is that it ends up in sovereign wealth funds that invest entirely overseas rather than domestically. The capital constraint, the biggest structural barrier to green industrialisation, is, in part, self-inflicted.

The third is the productive capacity linkage, which is particularly relevant to this project. National oil companies aren't simply rent-collectors. They have accumulated significant engineering capabilities across the full energy extraction process, chemical engineering, energy systems knowledge, and pipeline infrastructure, all of which are directly transferable to clean energy supply chains. An IEA study we conducted systematically mapped these cross-cutting capabilities: most can be repurposed. What's genuinely hard to transfer is subsurface drilling engineering. Everything else is already there. These

companies needn't start from scratch. They can become the main actors in the energy transition rather than its losers.

### **Yacob Mulugetta**

It's worth grounding this discussion in concrete figures. In some parts of Sub-Saharan Africa, 85 per cent of the population lacks access to electricity. Per capita consumption across the region is about 180 kilowatt-hours per year, a fraction of that in Spain or any comparable European context. That isn't primarily because people are more energy-efficient. It's because they simply don't have access.

The terminology of decarbonisation is itself revealing. I worked for a period within the UN Economic Commission for Africa, where my remit was low-carbon development. I recall my first conversation with a minister in Ethiopia, a country that had just formulated a high-growth, zero-greenhouse-gas-emissions policy, about decarbonisation. Even that minister's response was direct: "Why is this our agenda? Decarbonisation isn't our agenda. It's someone else's". That framing captures the position of most African governments. There's good reason, moreover, why many across the continent would prefer to speak of avoided emissions rather than decarbonisation: Africa's emissions are in the future, not in the past and present. The language of decarbonisation implies a responsibility that doesn't belong to countries that have barely industrialised.

Meanwhile, state utilities across the continent are, in many cases, dysfunctional, partly because the inherited colonial infrastructure has been maintained without transformation: the same systems, the same principles, the same approaches, serving a



Indigenous activists from Colombia, Ecuador, Peru and Brazil, demanding “No More Oil Drilling in the Amazon” at the First Conference on Transitioning Away from Fossil Fuels. Santa Marta, Colombia, April 2026.  
Foto: Daniel Chavez.

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Mabel Thwaites Rey: Rethinking the meaning of justice today must lead us to think not only about planetary justice, which is a legitimate demand, but also about not destroying the planet’s inhabitants before the planet itself is destroyed.

predominantly agrarian and rural population for whom that infrastructure was never designed. There's a real disjuncture between policy and practice. What has happened in just the past year is instructive: 16 gigawatts of decentralised energy distribution were added across Africa. Africa's total installed capacity is 75 gigawatts, the same as France and Germany combined, for a population of over a billion people with economies growing at 3, 6, or 9 per cent. In one year, 16 gigawatts came online, roughly 20 per cent of the existing total. All of it is driven not by policy success, but by policy failure: people buying and installing their own systems because utilities can't deliver. The just transition is happening, in fragmented and entirely uncoordinated ways, outside any policy framework.

What that tells us is that we need a much deeper assessment of what we mean by "just transition" and "decarbonisation". A big policy agenda disconnected from real benefits isn't delivering for people.

### **Mark Swilling**

The total electricity generated on the African continent equals the combined output of France and Germany. That is 140 million people in two European countries versus over a billion in Africa, with economies growing at 3, 6, and 9 per cent. If Africa continues to use fossil fuels, none of the Paris targets will be met. The world is toast, and I use that phrase deliberately.

You'd expect, therefore, that the international community would have a strong interest in financing a low-carbon

future. I agree with Yacob: we shouldn't focus on decarbonisation but on development pathways for the continent. Yet the climate finance that has reached Africa over the past two decades amounts to approximately 2 per cent of the total disbursed globally. The contradiction couldn't be more stark, and in the current context of geopolitical conflict, the chances of Africa receiving the finance it needs from international sources are very low.

That opens a productive yet psychologically difficult conversation for African policymakers: how do you mobilise the capital already on the continent? Sovereign and pension funds are predominantly outward investors. How do you recirculate capital within Africa? The African Development Bank has begun to take this question seriously. It also connects to the country platform movement, one of the most significant developments at the moment. Under the Brazilian and South African G20 presidencies, Global South countries were urged to formulate their own transition plans, authored by their own people, rather than accept externally designed frameworks. Brazil and South Africa were the first to do so. I worked for the Colombian government in 2024 and 2025 to help develop their country platform. The minister of the environment resigned before my report was finalised, so it has never been read. But the Colombian model is now being used as a reference by several African countries, and the Colombians don't know it.

## 2.3 The State, Public Ownership, and the Energy Question

### Mabel Thwaites Rey

People-first is a phrase that appears everywhere in these debates. But what does it actually mean when you get down to it? Central to all of this, to energy sovereignty, fiscal sovereignty, to who bears the burden of the transition and who captures the gains, is the question of the state. What's the policy space right now, and what lessons can we draw? And more broadly: what's the role of the state in relation to just transition and development, not only in terms of national oil companies but in relation to transitioning out of fossil fuels, especially given how central oil has been in the imagination and daily lives of people, in terms of jobs, identity, and economic survival?

What this project is trying to do, and what all of us here are trying to do, is unite academic and technical knowledge with the kind of knowledge that can serve genuine transformative ends. Not simply a declaration of principles, but solid foundations from which to wage a political struggle for the transformation that people need and want. The theoretical discussion about the state as a contradiction asks: from where do we operate? People speak from their movements, their localities, and their workplaces. But that has to crystallise somewhere, especially in activities as technically complex as energy, which require highly sophisticated cooperation across specific bodies of knowledge, and where competing interests are always at play. In the capitalist system we know well, the first question is always who earns money, what's done with it, how it's

distributed, and how pressure is exerted within and between formally sovereign national states. We are, moreover, in a moment of implosion of the international state system.

The rationale for keeping national state companies as objects of inquiry in a project like this is that, insofar as state enterprises exist, we can think about conducting politics from the public perspective. A public enterprise must at least formally be consistent with the general interests of the national state, and that formal commitment is itself a terrain of struggle.

My country, Argentina, was never an oil-exporting country like Mexico, Colombia, or Venezuela, but it had oil. In 1922, the National Petroleum Company, YPF, was created with a strategic purpose: to establish energy sovereignty and to use the company as an internal price regulator, since energy costs shape production, industry, and ordinary households.

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“ A public enterprise must at least formally be consistent with the general interests of the national state, and that formal commitment is itself a terrain of struggle.

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The process built a technically robust company with a strong sense of collective belonging, which withstood a century of governments of different political stripes and the assaults of neoliberal policy. In the 1990s, it was privatised and sold to Repsol, paradoxically, a Spanish company

that wasn't itself an oil producer, which, following capitalist logic, extracted as many resources as it could until 2012, when the government of Cristina Fernández de Kirchner decided to stop the haemorrhage by partially renationalising it. The paradox of selling a company with oil to a company without oil tells you something about the logic of privatisation.

Following the partial renationalisation, the government began to develop renewable energy production and to consider the transition. A new element then shifted Argentina's position: the discovery of Vaca Muerta, an unconventional deposit that, for the first time, opened the possibility of Argentina becoming an exporter, along with the attendant controversy over fracking and its environmental consequences, and the imperative of not remaining dependent on exporting agrarian commodities as the country's historical productive mix.

Then came the government of Javier Milei, which I'll simply call a disaster that we're still living through. We had witnessed the hope of Petro's election in Colombia; we then experienced the opposite. The Milei government has set about dismantling what had been built:

returning to a logic of privatisation and reversing renewable energy projects that were already well advanced, despite Argentina's years of economic difficulty caused by neoliberal policies and monstrous debt accumulation. One of the elements this research project should engage with closely is the relationship between the public state enterprise, which requires continuity over decades, and the violent swings of governments that interrupt projects, demotivate qualified personnel, and delay the possibility of thinking collectively about what to do.

Vaca Muerta encapsulates the dilemma. Do we leave it unexploited? Do we not extract this unconventional resource? But it also represents a historic opportunity to transform Argentina's productive matrix. These dilemmas require central political attention. They don't resolve themselves. They're resolved by acknowledging the innumerable environmental, social and political contradictions, involving the concrete interests of concrete societies, and by building solidarity across them. That solidaristic, collective construction is itself part of what this project's discussion will need to address.

## 2.4 National Oil Companies: Custodians, Criminals, or Transition Enablers?

### Aitor Jimenez

Amir Lebdioui referred to Petrobras and other national petroleum companies as custodians of resources. But we're talking about some of the worst corporate criminals in terms of social and environmental harm, and I'd like you to reframe that. Mabel Thwaites Reyes

already clarified that state and corporate interests don't always align with the interests of the people, as we can see right now in Venezuela, where the state is pledging itself to imperialism. National ownership provides no guarantee. And to Mark Swilling: you speak of massive infrastructure investment, industrial



Margarida Vasco, a proud farmer, a peasant activist, and a member of the Graça Machel Rural Association. Maputo, Mozambique. Foto: Daniel Chavez.

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Yacob Mulugetta: The challenge isn't only to provide energy for industry or transport, but to ensure a more just distribution of resources across society, with people at the centre, not economic sectors. Food and energy are deeply interrelated, and about 80 per cent of the food consumed in much of Africa is imported.

policy, and jobs. That sounds rather like old capitalism, and I may be wrong, but I don't think I'm entirely wrong.

### **Amir Lebdioui**

I wouldn't dare speak specifically about Petrobras, with genuine experts on that company present in this room. But in many developing countries, national oil companies were custodians of sovereignty, not only energy sovereignty but also economic and political sovereignty more broadly. Across Africa, they were key political actors in sovereignty because the alternative wasn't an abstract, cleaner future. The alternative was having your oil taken by others, with very little of the value returned. In many countries, including my own, Algeria, those companies negotiated better deals, defended national energy interests, and generated substantial fiscal revenues whose effects on the state were really significant.

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“ *To argue that investment in industrial capacity and infrastructure is by definition “capitalist” is analytically incorrect.*

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I come from a small coastal city with an oil refinery, something I always thought was a terrible thing to have in the middle of a small city. But for the people who lived there, it was a source of pride. My father told me that young men used to borrow a friend's Sonatrach jacket to go out in, because working for the national company signalled what the country had become. In nature, adaptation is how you survive, so things must change, and we'll

have to rethink the role of these companies. But the initial purpose behind their creation and nationalisation often came from a genuinely legitimate place. The question is whether that purpose can be rechannelled to meet the challenges we now face.

### **Mark Swilling**

Let's consider a range of socialist, capitalist, and state-capitalist countries. In which of them, irrespective of ideology, did the state not want to invest in industrial infrastructure? In all of them, it did. To argue that investment in industrial capacity and infrastructure is by definition capitalist is analytically incorrect. Socialist states built railways, power grids, and industrial plants. So did colonial states, so do developmental ones.

The actual political challenge in South Africa is, firstly, to make that investment happen at all; and secondly, to build the political coalitions that ensure the value extracted doesn't flow to international or local elites. That depends on a trade union movement making a strategic decision to separate from the governing party, which hasn't happened yet. The unions reinforce the current structure of capital accumulation while rhetorically opposing it. And it depends on the formation of a left political party. The Communist Party has recently separated from the ANC and will stand independently, but it carries a history that works against it.

We don't yet have an equivalent of the progressive parties that have, at their best moments, shifted the balance of power in Latin America.

## 2.5 Climate Finance: Who Pays, Who Benefits, and Who Gets Left Behind?

### Donna Andrews

Taking control of the money, knowing its location and amount, and demanding it are essential. At the core of energy sovereignty are questions about its purpose, beneficiaries, funding, and the need to ensure that costs are not imposed on those already burdened. Judith, the work GreenPaths, the Horizon Europe research project you coordinate, has done on climate finance is highly pertinent to this topic, right?

### Judith Clifton

The question of historical debt and reparations has been forced upon me in a productive way. A paper I'm currently submitting for review received a comment asking: What are the principles behind your idea of a just transition? Are you invoking historical debt? I'm still working out the answer, but being pushed to articulate it has genuinely been useful.

Let me say something about climate finance through the lens of the European Investment Bank, one of the largest public banks in the world, which has delivered most of the EU's climate transition finance. Because it's a policy-taker, required to implement whatever the European Union mandates, if the EU says "just transition", the bank has to deliver "just finance". So what does that actually mean in practice?

First, the definition of green finance is considerably more elastic than most people assume. Under the EIB's classification, a green project can include building an airport, as long as some

portion of it is solar-powered. That 10 per cent counts as green finance, even though you have built an airport. Building a road isn't green finance, but if that road leads to a recycling facility, it becomes green finance. The definitional work, in other words, is doing enormous political work.

Second: when we examine where all the green finance actually goes, we can only locate about half of it. The other half is untracked. One might charitably say this is because a great deal flows through SMEs and financial intermediaries, making it genuinely difficult to follow. But the situation remains: we can't account for half the money.

Third, and most damaging: when we ask whether the money goes disproportionately to more vulnerable places, using a vulnerability index developed by an LSE researcher, Andrés Rodríguez-Pose, the answer is no. We also looked at rural areas, peripheral regions, and the so-called left-behind places associated with the rise of the far right across Europe. Does more money, on the grounds of either historical legacy or need-based equity, go there? No. The main reason is procedural: to get the finance, you have to apply for it. If you're a small community with limited institutional capacity, applying for that money is genuinely difficult. The result is entirely predictable: large cities, with strong institutions, capture the majority of climate finance. One of the reviewers of our paper suggested this might actually be rational, concentrating investment

where it scales fastest. I'm now engaged in arguing against that position, and I'm working out which principles I'm going to invoke: historical reparations, need-based equity, or something else. The argument that we don't know where half the money goes, and that proportionally more goes to the already-advantaged, isn't acceptable, but we need a clear normative framework to explain why.

### **Mark Swilling**

Two per cent. That's the share of global climate finance that has reached Africa over the past two decades, on a continent that simply can't electrify through fossil fuels if any climate target is to be met. The contradiction isn't subtle.

Given that the geopolitical conditions for large-scale international climate finance transfers to Africa aren't improving, the key question is: how can the continent mobilise capital already within it? The

African Development Bank has begun to take this seriously, but the challenge is enormous.

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“ *Two per cent. That's the share of global climate finance that has reached Africa over the past two decades, on a continent that simply can't electrify through fossil fuels if any climate target is to be met. The contradiction isn't subtle.*

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The financial flows that currently characterise South Africa, where 45 per cent of pension capital leaves the country, and only 2 per cent reaches infrastructure, are both anti-poor and deeply destructive of productive investment. Recirculating that capital domestically is a significant political and regulatory challenge. But it's the challenge.

## **2.6 South Africa's Energy Transition: A Case Study in Constrained Choice**

### **Mark Swilling**

South Africa's coal-fired power stations are, on average, 42 years old. By 2030, we must close 25 per cent of existing capacity. I sit on the board of the company that manages the national transmission grid, and I can tell you that isn't a metaphor: if we don't close them, they'll close themselves. The infrastructure has paid for itself, though we have also taken on substantial debt for all sorts of corrupt reasons. Compare this to other countries where I have worked, which have young fleets of coal plants; those are sunk costs that still need to

recover their investment. Our situation is different. We have no option but to close. We have no gas, nuclear takes too long, and no international lender will finance new coal. We have one real option: sun and wind, plus batteries and some gas backup. About 30 gigawatts of renewable capacity are currently approved and under construction, but they can't connect to the grid because the national transmission infrastructure has been chronically underinvested. The largest infrastructure programme since the end of apartheid in 1994 is now underway: a 400-billion-rand national grid expansion. Our grid, if you draw a line between here

and Istanbul, covers roughly that distance. It's massive engineering, and it can drive industrialisation, because you need a whole constellation of engineering infrastructure and companies to deliver it.

Yes, as we close coal-fired power stations, people in certain areas will lose their jobs. But many other people will gain jobs in other areas. And in a report I recently prepared for the National Planning Commission, which reports

directly to the president, the finding was clear: a transition to a renewables-based energy system in South Africa is the cheapest option among current alternatives. In a country that isn't short of capital, where we could finance the entire transition from domestic resources without borrowing, what will determine success or failure isn't money or technology. It's regulatory and policy certainty. What we can choose is whether to get this right or to screw it up.

## 2.7 Contradictions, Coalitions, and the Horizon Beyond

### **Donna Andrews**

What's clear from everything said today is the importance of making contradictions visible rather than managing them away. Even in the South African case, where the money exists, the technology is available, and the path is, in some sense, known, the critical task is to make distributional choices explicit and contestable, rather than allowing them to accumulate invisibly in the hands of whoever has the institutional capacity to navigate the process. That means ensuring that everyone who needs to be in the room when those choices are made is actually there. It also means insisting that the state plays a role not as a neutral arbiter but as a regulator and a key player on the side of the people. Recognising and naming the contradictions is itself a political act.

### **Mabel Thwaites Rey**

What all of us here, and this project, are trying to do is to unite technical knowledge with the kind of knowledge that can actually serve transformative ends.

The dilemmas are real and can't be dissolved by simply adopting a correct theoretical position. For instance, let's take a look at Vaca Muerta, a vast shale geological formation in northern Patagonia. It represents a historic opportunity for revenue generation, but it also carries enormous environmental and social risks. Those contradictions require careful political consideration grounded in the concrete interests of concrete societies. Building that solidarity, and building it together, should be a key part of our research work.

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<sup>3</sup> Sokona, Y., Mulugetta, Y., Tesfamichael, M., Kaboub, F., Hällström, N., Stilwell, M., Adow, M., and Besaans, C. (2023). Just transition: A climate, energy and development vision for Africa. Independent Expert Group on Just Transition and Development.

<sup>4</sup> Project website: GreenPaths - European Knowledge Hub on Just Transition Pathways: <https://greenpaths.info/>

<sup>5</sup> Lebdioui, A. (2025). Five principles of an internationalist just transition to overcome the traps of the 'green' economy. In Energy transitions: Just and beyond. Alameda Institute. <https://alameda.institute/publishing/energy-transitions/>




Advertisement for a local energy company offering charging services for electric vehicles, in front of the headquarters of the Organisation of the Petroleum Exporting Countries (OPEC). Vienna, Austria. Foto: Daniel Chavez.



Amir Lebdioui: National oil companies aren't simply rent-collectors. They have accumulated significant engineering capabilities across the full energy extraction process, chemical engineering, energy systems knowledge, and pipeline infrastructure, all of which are directly transferable to clean energy supply chains.





# The Transition of the Transition

# 3

The second panel brought together academics, former senior decision-makers and trade-union strategists from Latin America, Central Asia and the United States to discuss the role of national oil companies in the energy transition from the standpoint of the Global South.

The conversation was moderated by **Miguel Virizuela** (University of the Basque Country). Participants included **Tatiana Roa Avendaño** (Andean University Simón Bolívar), **José Sergio Gabrielli de Azevedo** (Federal University of Bahia), **Serik Orazgaliyev** (Nazarbayev University, Kazakhstan), **Sean Sweeney** (Trade Unions for Energy Democracy), and **Ticiane de Oliveira Alvares** (INEEP, Brazil). Closing remarks were given by **Daniel Chavez**, the S-OIL Principal Investigator.

The transcript has been edited for clarity and reorganised thematically.

### 3.1 Are national oil companies an advantage or an obstacle to the transition?

#### Miguel Virizuela

Our panel turns to the structural pressures faced by oil-exporting countries in the Global South and to the role of decarbonisation in shaping those pressures. The aim is to discuss the structural pressures these countries face, the different stakeholders within them, including state-owned companies, and how these factors meet the double challenge of advancing the transition while also meeting the developmental goals of the South.

To open the discussion: when a country has state-owned companies that not only extract but also export oil or gas, is that an advantage in facing the transition, or a challenge? We have already heard, in the first panel, a slight bias in favour of public management of these assets, and I'd like to push the question further.

I'll start with Tatiana, who has recently served as Vice-Minister of Environment in Colombia, currently sits on the board of Ecopetrol, and has navigated the demanding path from an activist for the energy transition to a government decision-maker. Once the discussion is opened more broadly, we can deepen the macro perspective with José and, from there, move into the micro-politics of transition with the other panellists.

#### Tatiana Roa Avendaño

Let me first greet all the participants and my fellow panellists, and make a disclaimer. I'll speak from the perspective of an academic and an activist. I graduated from the Industrial University

of Santander, and I'm currently teaching at the Andean University Simón Bolívar. I'm on the Board of Directors of Ecopetrol, but I will not speak on behalf of the company. It's important to make that clear.

Now to the question. Oil companies, whether public or private, aren't ordinary companies. They're institutions that organise a whole socio-ecological regime grounded in fossil fuel extraction. Historically, they have articulated state, capital and territorial control to sustain that fossil energy regime. The relevant question is therefore not only whether ownership is public or private, important as that is. The deeper question is how the socio-ecological regime in which we currently live is to be transformed.

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“Oil companies, whether public or private, aren't ordinary companies. They're institutions that organise a whole socio-ecological regime grounded in fossil fuel extraction.”

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Reframing the question that way forces us to consider which relation between society and nature these companies presuppose, given that they were created, above all, to administer and expand fossil rent. In Colombia, we live off that rent, as do many oil-producing countries. I'd even reject the description commonly given to us. We aren't "oil-producing countries" in any meaningful sense: we're oil-extracting countries that have sustained an energy metabolism

organised around extraction and the export of crude rather than processed products. That metabolism underpins a particular type of society. Oil extraction has reorganised our territories, transformed cultures and social relations, and, in many cases, devastated entire ecosystems.

From this perspective, national oil companies could move towards transition only if they transform the energy model itself, transform their relationship with territories, and begin to break their dependence on fossil rent. I'm sure we'll be able to take this further as the discussion unfolds.

## 3.2 Petrobras and the contested project of national development

### Miguel Virizuela

Thank you, Tatiana. I asked a rather narrow question, and you have revealed the deep challenge it conceals, namely, civilisational change, both in extractive countries of the Global South and across the Global North. All that material infrastructure, all those fossil dynamics, would need to be reversed if we're to undo the subordination of the web of life, the trama de la vida, to the fossil order.

Returning to the initial frame, I'd like to turn to José. You presided over one of the largest national oil companies in Latin America, an organisation that isn't just a major global player in oil and gas but also a significant agent of development, advancing policies across culture, social programmes and industry.

During your tenure, oil extraction expanded substantially. Looking back, what were the main challenges you faced? How did Petrobras align with the Brazilian development agenda, and what investments could (or couldn't) have been made to use Petrobras as a key agent for the transition and the broader decarbonisation agenda that Tatiana has now placed before us?

### José Sergio Gabrielli de Azevedo

Thank you, Daniel, for the invitation, and thank you all for the welcome. I should say at the outset that I left Petrobras thirteen years ago. I'm now a consultant; I have no current relationship with the company, and I speak from my own experience, not on its behalf.

My first point is that NOCs aren't a single animal. They differ from one another in fundamental ways. Petrobras is very different from Pemex in Mexico or the National Iranian Oil Company. Petrobras was the result of a strong social movement in the 1950s, mobilised against the international companies to create a Brazilian company. From the beginning, it was state-owned, but it always had a share of its capital traded on the market.

Petrobras didn't begin with oil. It had to find oil, develop the technology to extract it, and build the technical bureaucracy to do so. For several years, it found very little. The small quantities it produced were processed in refineries developed to handle light crude from Algeria and Nigeria, and the distribution of oil products in Brazil was controlled by Shell and Exxon. Petrobras had to compete with them, develop its own refineries,



Diana Romero, one of Ecopetrol's environmental engineers working at La Tayra Lizama natural reserve, created by the company on the site of an oil spill in 2018, near Barrancabermeja, Colombia. Foto: Daniel Chavez.

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Tatiana Roa: We aren't 'oil-producing countries' in any meaningful sense: we're oil-extracting countries that have sustained an energy metabolism organised around extraction and the export of crude rather than processed products. That metabolism underpins a particular type of society.

and, over time, build refining capacity equivalent to national production. The last major refinery before 2014 was completed in 1980. By then, Brazil was producing around 2 million barrels a day and consuming about the same, essentially outside the international market.

The discovery of the pre-salt changed everything. The pre-salt is a massive, ultra-deepwater oil and gas reserve trapped beneath a thick layer of salt off the southern coast of Brazil. That vast reservoir transformed the company's position. Today, Brazil produces more than 4 million barrels per day and exports 1.6 million barrels per day, making it the world's fourth-largest oil exporter. We remain an importer of refined products because Brazilian consumption has grown faster than refining capacity: we now consume around 2.6 million barrels a day and produce 2.3 million barrels a day, importing the balance.

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“ *Petrobras didn't begin with oil. It had to find oil, develop the technology to extract it, and build the technical bureaucracy to do so.*

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All of that resulted from a combination of government and company policies. Petrobras developed a strong technical bureaucracy and produced its own five-year strategic plans. The government provided the broad framework and strategic priorities without interfering in day-to-day decisions.

During my ten years as CEO, I'd highlight three major strategic decisions. The first was national content in procurement: whatever could be produced in Brazil would be produced there. With the pre-salt, the policy became enormous. The five-year investment programme reached around 250 billion dollars, comparable in size to the Marshall Plan. Petrobras alone required one-third of the world's deep-sea drilling rig fleet, and we decided that the global expansion of capacity needed to meet that demand should take place in Brazil, building on the existing industrial structure.

The second was the expansion of biofuels. To my knowledge, Brazil is the only country in the world where trucks run on 15 per cent biodiesel and cars on 27 per cent ethanol. The decision was taken in 2006, and Petrobras was reorganised to produce biodiesel and ethanol.

The third was the regulatory architecture for the pre-salt itself, which originated within Petrobras rather than in government. We defined the concept of a "strategic area", removed the pre-salt from standard concession auctions, and proposed a production-sharing contract that broke with the previous concessionary regime. The government adopted those ideas. By then, Petrobras had become important enough in Brazilian society to propose changes to the country's regulatory structure, not merely respond to them.

### 3.3 Geopolitics, landlocked geographies and the Kazakh case

#### Miguel Virizuela

Serik, José has raised issues of sovereignty, autonomy, and what a development agenda entails in terms of technological capacity and human resources. Petrobras has shown what a national oil company can look like. From a very different geographical and geopolitical position, Kazakhstan isn't only a major player in oil and gas but is also located between Russia, China and Europe. How does the national development agenda look from there, and what constraints does geopolitics impose, especially at present?

#### Serik Orazgaliyev

The question goes to the heart of the constraints under which both the country and the sector operate. Kazakhstan became independent in 1991 and is located in the middle of Eurasia. When the Soviet Union collapsed, the country inherited an export infrastructure deeply interconnected with Russia and the other Central Asian republics. For oil exports, we had to work closely with our neighbours, including the former Soviet states, to reach world markets.

The industry needed investment and technology, so from the early 1990s, the government decided to open the sector to foreign investors. Private ownership had been unthinkable under the Soviet system, and foreign investment was almost equally unthinkable.

A third element was diversification of export routes, and here China matters. The Belt and Road Initiative was announced in Kazakhstan; in that sense, one could say it began with us. We came to rely on our eastern neighbour to build the pipelines that diversified our exports towards Asia. Previously, exports flowed only towards the Black Sea, and that route is now in a very difficult situation: the war in Ukraine continues, and Black Sea terminals are often targeted in military operations. The diversification strategy has therefore proved to be the right one.

Other doors remain closed. The Middle East is in renewed conflict, and Iran, with which we share the Caspian Sea, remains under sanctions. The shortest, most economical route for Central Asian oil to reach world markets would be via Iran to the Persian Gulf. In thirty years, it still hasn't been built. The region is so interconnected that sanctions on one country reshape the integration possibilities of all the others, not only for Kazakhstan but also for Turkmenistan, Azerbaijan and several others around the Caspian.

Kazakhstan's only access is to the Caspian, which is itself an inland sea. For landlocked countries, geography and geopolitics weigh particularly heavily on the terms of integration into world energy markets.

## 3.4 “There’s no transition”: the critique of market-led decarbonisation

### Miguel Virizuela

Academics too often discuss decarbonisation as though nothing had happened in the past five years. Yet since the wars in Ukraine and Iran, the policy agenda has shifted considerably. We’re arguably operating in a war regime that runs directly counter to decarbonisation. Sean, could you speak to what’s happening with the agenda, the central role that market stimulus played in its original design, especially in the Global North, and the debates about planning for decarbonisation?

### Sean Sweeney

Thanks, comrades. I’ll present an analysis of a group of unions across health, education, transport and energy that are part of the Trade Unions for Energy Democracy (TUED) network. To those of you here who are already part of TUED, thank you for your consistent support; to others who aren’t yet in, you’re welcome to join, as TUED is a multi-union, multi-sectoral approach.

Our core message is simple. There’s no energy transition underway at the moment. There are changes in the energy system, but they are marked by an expansion of all forms of energy, driven by rising demand. Coal, oil, gas, renewables, and, to some degree, nuclear and hydropower, are all expanding because of the capitalist system’s focus on economic growth. It’s illusory to talk about the end of fossil fuels if we don’t understand the market or economic interests that are driving that agenda.

The commitment to decarbonisation came not from the market but from the accumulation of scientific evidence since the 1990s. In 2006, Sir Nicholas Stern published his landmark study on the economics of climate change. I attended the launch meeting at Columbia University, where Stern, Jeffrey Sachs and Joe Stiglitz presented the report. Stern argued that the cost of decarbonisation would be dwarfed by the GDP damage caused by climate change, which he placed above the combined damage of the First World War, the Second World War and the Great Depression. These are global-North reference points, but the framing was striking.

I sat in the audience and thought, “The man must be insane”. Stern argued that the massive investments required would be driven by the private sector, supported by subsidies and incentives, and that where markets didn’t exist, policy would create them. Place yourself for a moment in the mind of a capitalist investor. They aren’t looking fifty years down the road at climate damage. They’re looking at how to make money from climate protection now. Without a political push, the rational response is to stick to business as usual. That has been the role of oil and gas companies in the world we actually inhabit.

This morning, when Daniel introduced the rationality and objectives of the S-OIL project, he showed an International Energy Agency chart suggesting that fossil-fuel companies face a moment of truth. The report was written in 2023 and



Climate activists from Pacific island microstates marching in the streets of Santa Marta, Colombia, during the First Conference on the Transition Away from Fossil Fuels, April 2026. Foto: Daniel Chavez.

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Sean Sweeney: Coal, oil, gas, renewables, and, to some degree, nuclear and hydropower, are all expanding because of the capitalist system's focus on economic growth. It's illusory to talk about the end of fossil fuels if we don't understand the market or economic interests that are driving that agenda.

released in early 2024. If you look at the IEA documents now, they're largely de-emphasising decarbonisation, and they aren't alone. The capitalist world can't envisage a money-making bonanza in decarbonisation without massive subsidies and de-risking from governments, and only a small handful of rich governments can sustain that on any consistent basis. The European Union can do it to a diminishing extent. The policy framework is therefore unravelling fast.

“ *There's no energy transition underway at the moment. There are changes in the energy system, but they are marked by an expansion of all forms of energy, driven by rising demand.* ”

Look at the past Joe Biden administration. It passed what was advertised as the largest and most ambitious climate bill in history, sold as the basis for the reindustrialisation of the United States. Donald Trump dismantled it. The question isn't whether Trump is the problem, but why there was so little resistance to the rollback. The Democrats, like many social-democratic and centrist parties in Europe, knew that the message that you can make money from decarbonisation, once appealing to investors, was no

longer resonating. They aren't putting up a fight to save the very policy they pioneered.

Our task in the trade-union movement is therefore not to ask “what about the workers, what about the transition?” as if a transition were on the table. The starting point must be the recognition that, in practice, no transition is on the table. The Paris commitments aren't being met. We're confronting the catastrophic policy failure of trying to decarbonise a capitalist system based on the profit motive.

The next phase of climate policy has to be anchored in global public goods: access to technologies and a shared approach to risk that isn't driven by profit. That's what we call the public pathway, an alternative to the neoliberal model. The idea that oil companies will make or break the transition needs to be interrogated. Oil companies go with the political flow, and at the moment they have never had a better opportunity to make more money from coal, oil and gas.

We need a new political architecture and policy framework that can deliver decarbonisation in a manner compatible with the science, the Paris commitments and the multilateral system at its best. We aren't there yet, and that's what our work in this project and similar projects has to address.

### 3.5 The workers' perspective: a just, sovereign, national and popular transition

#### Miguel Virizuela

Sean has reminded us that workers and unions need to be central to any serious discussion of transition. Ticiana, your research at the Institute of Strategic

Studies of Oil, Natural Gas and Biofuels (INEEP) adopts precisely that perspective on Brazil's oil and gas industry. What position is emerging there, and how does it relate to the broader Brazilian debate?

## Ticiana de Oliveira Alves

Thank you, Daniel, for the invitation. The initiative behind this project, which situates state companies in a developmental role as part of the transition, is very welcome. INEEP, the institute where I work, was created by the Unified Federation of Oil Workers precisely to conduct strategic studies that situate the energy sector within a national development project.

From our perspective, the debate on the energy transition in Brazil is, above all, about how to rethink a national development project in which the energy sector is a key vector. New technologies, green jobs, and industrial capabilities are all at stake. When the energy transition is discussed in the Global South, the framing is often imported from the Global North and doesn't necessarily fit the realities of countries like ours.

José has recalled Petrobras's history. Brazil was highly inventive in the late 1970s and early 1980s in response to the energy security crisis. We built Itaipu, at the time the world's largest hydroelectric plant, jointly with Paraguay as a binational integration project. We began offshore oil exploration. We launched biofuels through the Pro-Álcool programme. All of this was framed as a response to energy security. Fifty years later, energy security is once again driving the energy transition. When Germany tells the world how the transition should look, it's responding to its own national interest and the imperative of avoiding dependence and vulnerability.

In the Global South, we face the energy transition and decarbonisation alongside another problem that's rarely acknowledged in Global North debates, namely energy poverty. Many people still

can't access energy services. Brazil's electricity matrix is already 90 per cent renewable, and the overall energy matrix is around 50 per cent. Our energy sector accounts for only around 18 per cent of greenhouse-gas emissions, which is very different from the developed world. Our problems aren't the same, and our solutions can be different.

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“ *The next phase of climate policy has to be anchored in global public goods: access to technologies and a shared approach to risk that isn't driven by profit. That's what we call the public pathway, an alternative to the neoliberal model.*

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What workers and trade unions argue in this debate is that there can be no transition in Brazil that doesn't place energy at the centre of a project of national development and a new industrial base. The oil and gas industry in Brazil generates more than 200,000 high-quality jobs and accounts for over 13 per cent of industrial GDP. If we were to stop oil extraction and production overnight, what would we put in their place? Renewables are already a reality in Brazil. We have hydro, solar and wind in significant quantities. But the installation of wind and solar parks hasn't generated quality jobs, has been very disruptive for local communities, and in the north-east, where inequality is already deepest, has produced new problems rather than energy inclusion. The price of energy hasn't fallen for residential users. There has been no new national production content comparable to that seen in the previous decade in oil and gas.

These are some of the contradictions of

the current process. Brazil has made significant strides in energy diversification, though I hesitate to call it a transition because oil and gas production hasn't declined. From the workers' perspective, we argue that the energy transition must be just, sovereign, national, and popular. To achieve that, we need to develop new green industries that genuinely move toward transition, but we also need to think in terms of climate adaptation, because extreme events will

continue even if emissions stop today: the changes are already locked in. Adaptation is itself an opportunity for rapid development plans and for infrastructure that allows our cities to absorb the changes already underway. State coordination and the deployment of national oil companies as instruments need to advance together. NOCs must become part of the solution, both in adaptation and in the technological development of new green technologies.

### 3.6 Beyond the petroleum civilisation: cultural transformation and the limits of reform

#### Miguel Virizuela

Tatiana, you spent many years as an activist outside the state, opposing the social and environmental devastation caused by oil extraction, and you have more recently been a senior decision-maker in the Colombian government. Could you speak to the contradiction between the development agenda and the oil and gas industry's local and global impacts?

#### Tatiana Roa Avendaño

I have spent many years pushing the debate on transition and on the critique of what we have called the petroleum civilisation. When I say "we", I'm referring to those of us who have been part of Oilwatch, an international network.

Daniel began his presentation on the S-OIL project with an idea that recurs in oil debates: that we depend profoundly on oil and that we're a "petroleum civilisation". He used that expression in a particular sense, but the phrase repays unpacking. We have agreed to swap cotton for plastic. We decided to

consume food that carries enormous energy costs because it travels around the world before reaching our tables, even though, in countries like Colombia, much of it could be produced locally. We move goods on diesel-burning ships, often goods that contribute very little to our lives. We have been made to believe that we depend on this, that no other world is possible, and that oil is more important than water. It's a civilisation that believes it can't live without oil at current consumption levels. We're rather like a family that receives a great inheritance and squanders it on very little. Our Western civilisation has consumed the oil endowment in barely more than a century. The critique we formulate is directed at the way in which oil has shaped our lives, our cities and territories, transformed our food, reorganised our forms of mobility and consumption, and has even contributed to defining our aspirations, imaginaries and desires.

Censat Agua Viva, the organisation I was involved with, began articulating the debate on the transition in Colombia by trying to bring together sectors of society



Detail of the pumpjack of Infantas 2, Colombia's first commercial oil well, opened by the Tropical Oil Company in April 1918, in the Middle Magdalena region. Foto: Daniel Chavez.



Daniel Chavez: The Global South needs real access to alternative energy infrastructure and the financing to build it. Capital transfers, technology agreements, and international financial mechanisms that can support the rapid deployment of renewables must come first. Otherwise, "keep it in the ground" remains a logic that presupposes conditions that don't exist for many countries.

that often end up confronting one another: energy workers and environmentalists, who are, after all, working-class people from different positions. We undertook a study of the uses of oil that have to be left behind and those that will continue to require a long horizon. The essence of our position is that the transition must, above all, be a deep cultural transformation. It has to change what we take for granted, what feels natural to us, and what has been incorporated into our bodies and our territories.

What I'd emphasise now, after two years in a place I never imagined being, in a senior state position with the challenge the Colombian government has set itself to transform a national oil company into an energy company, is that several elements stand out and deserve more attention than they often receive.

The first is political economy in a broad sense. We're countries dependent on oil rents. There's labour dependence and territorial dependence. The Eastern Plains of Colombia, which only 50 years ago depended fundamentally on agriculture, are now known as "oil regions". I refuse to call them that. Reducing such richly diverse territories to "oil regions" obscures what they are and have been. The question, then, is how alternative economies are built, how our countries cease to depend on oil rents and on the extractivism that has shaped us almost since the formation of our states.

A second element is the normative architecture. In Colombia, Law 142 - which Daniel and I studied some years ago in the context of another research project - fragments the electricity sector and prevents an oil company, whether national or foreign, from operating fully

within it, and thus from becoming a genuinely energy company. The electricity generators in Colombia, many of them national and several Spanish, hold positions they have no intention of surrendering. Transforming the normative architecture is therefore part of the transition itself.

A third element is subsidies. The oil sector has historically received not only economic subsidies but also social and environmental subsidies, because the industry's costs aren't reflected in its price. Regions absorb those costs in their territories, in working conditions, in environmental degradation and in rising local costs that fall on workers who aren't among the privileged minority directly employed by the industry.

For us, the question is how the transition redistributes costs. How do we design a transition that doesn't reproduce the same inequalities the current fossil order has produced, and that the shift towards a "mineral order" based on renewables is already reproducing? Without a deep cultural transformation, none of this will be possible.

I want to add one further point on the role of national oil companies in the transition. I agree with José when he argues that NOCs aren't all alike. They emerged in different contexts, and they aren't neutral. They weren't born to transform the energy metabolism. They were born, as I argued earlier, to administer and expand the fossil rent. The question of how they'll operate during the transition is therefore neither solely cultural nor solely a question of ownership. It's also a question of the global economic, fiscal and financial system, which rewards the expansion of reserves. An oil company whose reserve-replacement ratio falls is

penalised by every parameter by which it's measured in the markets. That's the framework into which national oil companies are entering the broader energy business.

The regime has been sustained by rent-dependent states, the global financial system, fossil infrastructure, geopolitical relations, and sheer material inertia. We're

surrounded by pipelines and fossil infrastructure of every kind, not least the automobile infrastructure that organises so much of our daily lives. To transform that requires transforming the institutional fabric, the policies, the infrastructures and, above all, the relations of power, because we shouldn't underestimate the immense power this sector has had in shaping the world order.

### 3.7 A transition of the transition: planning, public ownership and the social contract

#### Miguel Virizuela

The complexity of these questions is clear, and we have five years ahead of us to begin to disentangle them. Reflecting on Tatiana's intervention, I'd underline two intellectual reference points that Daniel raised earlier and that I find useful here. The first is Matthew Huber's *Lifblood*, which sets out the social architecture that made the fossil civilisation possible. The problem isn't only that the industry doesn't pay for its carbon emissions. It's also that air travel has been subsidised, that individual car ownership was promoted through public policy, that urban sprawl has made us more dependent on cars, and so on. A vast set of policies has entangled the Western fossil civilisation. The second is Adam Hanieh's *Crude Capitalism*, which traces the geopolitical architecture that made crude oil exceptionally cheap for European post-war development, in the Marshall Plan moment and through the Cold War, including its military dimensions.

With that in mind, and with time running short, let me put a final question to the panel. There's a subtle tension in this

room between those who see national oil companies as tools for development and those who insist on keeping hydrocarbons in the ground and accelerating decarbonisation. Could each of you, very briefly, address that tension?

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“ For us, the question is how the transition redistributes costs. How do we design a transition that doesn't reproduce the same inequalities the current fossil order has produced, and that the shift towards a “mineral order” based on renewables is already reproducing? ”

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#### José Sergio Gabrielli de Azevedo

There is, I think, a transition of the transition that's needed. We should move towards policies that change the structure of consumption, not only the structure of production. Society depends on oil, and the transition does require reducing oil consumption. You can't, in the short term, simply reduce production: the capital is already installed, the machinery exists, and the conditions of production are in place. You can, however, change the

structure of consumption at different speeds. You can improve the use of other energy sources. Most importantly, you can create new industries that rely on low-carbon technologies. If economic policy shifts in that direction, the transition can proceed, consistent with Sean Sweeney's argument that no real transition is underway today.

### **Sean Sweeney**

I agree with Tatiana's call for a deep cultural transformation. The question is what concrete steps can be taken to get us there. We know that any one country or region moving alone tends to hit a brick wall because of global commercial competition. The European debate around Mario Draghi's European competitiveness report illustrates the point. The European Commission says it wants Europe to be the first net-zero continent, but not at the expense of European competitiveness. The barrier of capitalist competition appears immediately.

A global public-goods approach has to rest on what I'd call a physics of cooperation. Put simply, emissions generated anywhere in the world harm people everywhere, and emissions avoided anywhere benefit people everywhere. On mitigation alone, that's the premise for a new architecture of global cooperation.

Decommissioning coal-fired power stations, as required by the IPCC and the IEA, will only happen if there's a global super-fund to compensate not private owners but the public institutions that have invested in that infrastructure. As Mark Swilling noted earlier, coal stations in South Africa are around forty-five years old, and the same is roughly true of the United States and of what remains of European coal. The Asia-Pacific picture is

very different. The average age of plants there is twelve to fifteen years. What we're being asked to do is compensate owners not only for already-subsidised investments but also for the energy they'd have sold on global markets over the next thirty years. That's an untenable proposition, politically and economically. We have to say: you have made enough money out of fossil fuels over the generations. We're nationalising you. We're forming a global consortium of cooperating public entities to plan decarbonisation, in which the most capable countries (I'm thinking of Norway or the United States) go first because they can afford to, in line with the principle of common but differentiated responsibilities enshrined at the UN. Countries like Guyana, which has doubled its GDP from oil exploration in five years, shouldn't be going first.

During the Covid emergency, the UN Secretary-General called for a global public goods model for vaccines and other environmentally essential technologies. What has happened to that since? Nothing. Big corporations patent what they call their inventions and continue to make money. Unless we take the energy system into public ownership and control, alongside a new decarbonisation mandate, we won't address the climate emergency. Energy is central to the decarbonisation agenda. We need to own and manage it, then reduce its footprint and use, particularly fossil fuel use. These are bold steps, but they're necessary if we're to achieve the cultural transformation that's required.

### **Miguel Virizuela**

Thank you, Sean. A friend of ours was concerned that, in the previous panel, we hadn't addressed the judicial architecture



An activist from the *Unión Sindical Obrera* (USO, the Colombian oil workers' union) at the May 1<sup>st</sup> rally in Barrancabermeja in 2026, commemorating International Workers' Day.  
Foto: Daniel Chavez.

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Sean Sweeney: The capitalist world can't envisage a money-making bonanza in decarbonisation without massive subsidies and de-risking from governments, and only a small handful of wealthy governments can sustain that on any consistent basis.

of all this. He had in mind both the public goods built after the Second World War, the World Health Organisation, the International Labour Organisation, and so on, which the United States has been steadily withdrawing from, and the free trade agreements, which institutionalise the arbitrage benefits going to capital. It's a major issue, and we should hold on to that macro and global perspective on the architecture we need to move forward with. Tatiana, please go ahead.

### **Tatiana Roa Avendaño**

I'd close by returning to the role of national oil companies in the transition. As I said earlier, NOCs aren't all the same; they emerged in different contexts. Above all, they aren't neutral. They weren't born to transform the energy metabolism. They were born to administer and expand the rent. Hence, the problem of how national oil companies operate during a transition isn't only a cultural question or only a question of ownership. It has to do with the global economic, fiscal and financial system, which rewards the expansion of reserves.



*Society depends on oil, and the transition does require reducing oil consumption. You can't, in the short term, simply reduce production: the capital is already installed, the machinery exists, and the conditions of production are in place. You can, however, change the structure of consumption at different speeds.*

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An oil company that doesn't expand its reserves, whose reserve-replacement ratio falls, is punished by every parameter through which it's measured. That's the

framework into which oil companies are now entering the broader energy business.

The fossil regime has been sustained by rent-dependent states, the global financial system, fossil infrastructure, geopolitical relations, and sheer material inertia. We're surrounded in countless ways by pipelines and fossil infrastructure, not least the world's automotive infrastructure. To answer how these companies might enter a transition, then, requires transforming an entire institutionalality: the policies, the infrastructures, and, above all, the relations of power. We shouldn't underestimate the immense power this sector has had in shaping the global order.

### **Serik Orazgaliyev**

I'd like to address the social dimension of the energy transition. For developing countries, the energy transition, as it's often posed, doesn't make much sense at present. What's feasible for them now is diversifying their energy sources. One of the S-OIL project's work packages focuses precisely on social issues, with ethnography and anthropology involved, and I'd frame the social contract along two dimensions.

The first is a global social contract in which the major powers regulate oil prices. This is very important because, for the United States, oil prices don't matter as long as its treasury can print an unlimited number of dollars. The oil price is heavily regulated. If it followed market mechanisms more strictly, I think it would settle at a level where renewables could compete with the traditional fossil fuel market. As things stand, especially for developing countries, building renewables makes little economic sense because

fossil fuels are still cheap, and it isn't the fault of developing countries that they are cheap. We have to take that into account.

The second dimension is the social contract within countries, between the state and the citizens. In many developing countries, that contract has been built on the government, especially through national oil companies, providing jobs, other benefits, and, in many cases, subsidised fuel. In my country, tragic events occurred in 2022 when the government tried to remove the subsidies. People took to the streets; we

were on the brink of collapse, and, unfortunately, hundreds of people died in the violence. We can see how fragile a social contract is when it rests on the notion that the government provides certain public goods, and how badly it works when those goods are removed overnight. Both dimensions of the social contract have to be studied.

Every country offers a unique set of mechanisms for enforcing contracts, and I hope this project will yield some interesting policy recommendations.

### 3.8 Closing reflections: common but differentiated responsibilities and the need for planning

#### Daniel Chavez

Thank you to all the panellists from both panels this morning, and to all of you for joining us at the launch of this project. I was happily struck that several panellists spoke of "our project". ERC Advanced Grants are, by definition, individual rather than consortium-based. I'm constantly tempted to call it "my project", so it was meaningful to hear it taken up here as a collective challenge.

I want to underline three ideas that have emerged from today's exchanges. The first arose from Aitor Jimenez's comment on what he called the environmental crimes of Petrobras and other oil companies. We need to be clear: none of us working on this project is idealising national oil companies. We're aware of the environmental disasters that many, and perhaps most, of these companies have caused. At the same time, we can't ignore the fundamental role they play

and the responsibility they bear for development in countries of the Global South. That's why the references made today to public ownership matter so much, and why they're at the heart of the public pathway being advanced by Trade Unions for Energy Democracy.

The second idea, drawn from Sean's intervention, is the principle of common but differentiated responsibilities in decarbonisation. Within the project's theoretical framework, this aligns with the Marxist concept of uneven and combined development. We can't treat the oil companies of the Persian Gulf or Norway in the same way as the state-owned companies of Brazil, Colombia, Angola, Nigeria or Indonesia, to name only a few. Particularities matter and must be theorised, not flattened.

The third idea builds on Ticiana's call for a transition that is just, sovereign and popular. From the project, we'd add a

further adjective: planned. The current situation in Cuba, where the collapse of the oil supply has brought society to the brink of systemic breakdown, makes this clear. I have many points of agreement and several points of disagreement with colleagues working on degrowth, and what's happening in Cuba forces us all to revisit some of the foundational ideas of that literature.

Demands to halt fossil fuel extraction overlook a fundamental asymmetry. Whilst calls to "leave it in the ground" proliferate, renewable energy investment has failed to materialise at the scale required by most countries in the Global South. Many African, Latin American and Asian nations are essentially being asked to abandon their principal wealth-generating resource without a viable substitute in place: without the capital, technology, or partnerships needed to transition to a post-carbon economy.

The prerequisite is obvious. The Global

South needs real access to alternative energy infrastructure and the financing to build it. Capital transfers, technology agreements, and international financial mechanisms that can support the rapid deployment of renewables must come first. Otherwise, "keep it in the ground" remains a logic that presupposes conditions that don't exist for many countries.

Without this shift in resource flows and technological capacity, demands to halt prospecting, exploration, or extraction serve as political theatre. They're convenient for wealthy countries and cost them nothing, yet demand sacrifice exclusively from those societies whose development depends on commodity extraction. Structural inequality can't be wished away with slogans. We need solid research to ground desirable, feasible, and achievable alternatives. We'll continue working on these questions over the next five years.



Ecopetrol's pipelines around the La Cira field, near the city of Barrancabermeja, Colombia. Foto: Daniel Chavez.

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In April 2026, the governments of Colombia and the Netherlands organised the first multilateral conference dedicated to fossil fuel phase-out. Representatives of 57 states, academic researchers, trade unionists and civil society participants converged in Santa Marta, marking a departure from three decades of stalled UN negotiations. Rather than debating whether fossil fuels should be abandoned, the conference reframed the question around mechanisms for achieving a just, equitable, and financed transition.

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## Contributors

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Daniel Chavez is an Ikerbasque Research Professor at the Ekopol research group of the University of the Basque Country (UPV/EHU) and an Associate Fellow of the Transnational Institute in Amsterdam. He is the Principal Investigator of the S-OIL project. His research engages with the political economy of state-owned enterprises, public alternatives, green industrial policy, and just transition, with sustained empirical work across Latin America, Southern Africa, and Southeast Asia.

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Donna Andrews is an economist based at the Ethics Lab of the University of Cape Town, where her work addresses questions of health policy, agrarian change, gender and environmental justice in Southern Africa. She has long-standing ties to social movements across the region.

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José Sergio Gabrielli de Azevedo is a Brazilian economist and Professor Emeritus at the Federal University of Bahia. He served as Chief Financial Officer and then Chief Executive Officer of Petrobras between 2003 and 2012, during which the pre-salt discoveries reshaped the company's strategic position. He has written extensively on industrial policy, sovereign development and the role of national oil companies.

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Amir Lebdioui is the founding director of the TIDE Centre (Transitions, Industrialisation and Development Economics) at the University of Oxford. His work focuses on green industrial policy in commodity-dependent economies, with extensive empirical engagement across Latin America, Africa and Southeast Asia.

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Yacob Mulugetta is Professor of Energy and Development Policy at University College London. His research focuses on the political economy of energy systems in Africa, the politics of climate finance, and the conditions under which energy transitions can become genuinely developmental. He has served on UN expert panels and has been a lead author on IPCC and Global Sustainable Development Report processes.

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Tatiana Roa Avendaño is a Colombian oil engineer and long-standing energy justice advocate. She served as Vice Minister of the Environment in Colombia under the Gustavo Petro administration.

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Sean Sweeney is the global coordinator of Trade Unions for Energy Democracy (TUED), a network of trade unions working for democratic public control of energy. Based at the City University of New York, he has spent two decades building a labour-led analysis of the energy transition and is among the most consistent advocates of a public pathway as the only credible route to a just transition.

**Mark Swilling - Stellenbosch University**

Mark Swilling is Distinguished Professor of Sustainable Development at Stellenbosch University and co-director of the Centre for Sustainability Transitions. He has written widely on the political economy of transitions, decoupling, and just transition in the South African context, and has played an active role in policy debates on the country's energy policy and transition investment plans.

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Mabel Thwaites Rey is a Social Sciences Professor at the University of Buenos Aires, where her work has focused on state theory, public ownership and Latin American political economy. Her writing draws on a Gramscian tradition and engages closely with the trajectories of state-led development, privatisation and renationalisation across the region.

**Miguel Virizuela - University of the Basque Country (Panel 2 moderator)**

Miguel Virizuela is a lecturer in economics at the University of the Basque Country and a Research Associate for the S-OIL project. His research focuses on the political economy of national oil companies in Latin America and on the institutional and political conditions for energy transition in oil-dependent states.



