UNJUST TRANSITION:

Reclaiming the energy future from climate colonialism

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Abstract

The global energy transition stands at a pivotal moment: it can either dismantle the inequalities driving the climate crisis or deepen them. Today, the transition risks reproducing patterns of extractivism and exploitation, with the most marginalized paying the highest price while elites profit. From transition mineral mining to debt burdens and unequal energy access, the current trajectory mirrors centuries of colonial injustice. A just transition must redistribute power and resources, curb overconsumption, and prioritize dignity and rights for all. This report outlines pathways to build an energy system grounded in equality, justice, care and collective wellbeing —where energy serves life, not profit.

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EXECUTIVE SUMMARY

The world stands at a crossroads. The transition to renewable energy could help heal the deep inequalities that drive the climate crisis, or it could entrench them even further.

Done right, the energy transition is a chance to reshape our economies around equality, justice, care and collective wellbeing. Done wrong, it will see the most marginalized once again paying the highest price, while the powerful profit.

Today, the warning signs are clear: the global renewable energy transition is being built on unequal foundations. We are witnessing climate inequality in action: a transition focused on replacing fossil fuels with green alternatives, without questioning the excessive energy use of the richest, while often leaving lower-income communities to bear the greatest costs, including through the harmful impacts of transition mineral mining, inadequate benefit sharing, and global financial and trade systems rigged against their interests. Put simply, the same dynamics that drove historical colonialism are re-emerging in new forms through the green transition.

These patterns of inequality play out both between and within countries. While stark inequalities exist between the richest and poorest within high-income countries too, global inequality is most sharply felt in the Global South, where structural barriers and historic injustices have left entire nations bearing the brunt of the climate crisis and now shouldering the greatest risks in the renewable energy transition. Unless the logic underpinning the transition changes, it will continue to replicate the history of extractivism and exploitation. These inequalities intersect with gender, race, class, age and other marginalized people or groups, meaning that the costs of an unjust transition fall heaviest on Indigenous Peoples, Black communities and other racialized groups, women, workers, peasants, and of course young people and future generations.

This concentration of wealth and power is mirrored in patterns of energy use: a small minority live in extreme luxury and overconsume planetary resources, while others still lack basic electricity. If just one year's energy consumption of the wealthiest 1% were redistributed, it could meet the modern energy needs of all the people in the world without electricity seven times over,[1] while redistributing the consumption of the top 10% global energy consumers could meet the needs of the entire Global South nine times over.[2]

The highest levels of consumption are concentrated among the very wealthiest people and corporations, who make up a tiny yet powerful minority. This

also reflects a wider geographical imbalance in how energy is produced and consumed, as this elite is predominantly located in the Global North. Over the past 60 years, people in this region have consumed more than 3,300 petawatt hours (PWh) of excess energy – or beyond modern basic needs – enough to power the whole world for over 20 years.[3]

A world where everyone can thrive, and where countries transition together rather than some on the backs of others, is possible. But the current trajectory is leading us in the opposite direction. Countries – particularly the richest and most responsible for the climate crisis – must change course, confront historic and ongoing injustices and transform the systems of extraction and exploitation that drive extremes in energy consumption and energy poverty, and face down the power and influence of corporations and the super-rich. This includes questioning which needs and forms of consumption are prioritized within the remaining global carbon budget – the amount of CO_2 that humanity can emit to stay within the target of 1.5°C of warming. Doing so is not only an urgent matter of justice, but vital to the success of phasing out fossil fuels.

Climate colonialism in the transition

These inequalities are playing out in real time as the transition unfolds. Emerging patterns of extraction, both in the mining of transition minerals and in a global financial and trade architecture tilted toward the powerful, are replicating the same exploitative dynamics that have long channelled value from the most marginalized in the Global South to the richest in the Global North, while leaving harm and exploitation behind.

A new scramble for resources

The shift to renewable energy is fuelling a global race for transition minerals like lithium, cobalt, nickel and copper. But rather than supporting local development in the Global South – which holds 70% of the world's transition minerals reserves[4] – this new scramble for resources is replicating old extractive dynamics.

Take electric vehicle supply chains: the Global North's preferred but flawed solution to decarbonizing transport also illustrates the stark imbalance between communities bearing the costs and billionaires benefiting from the crisis. Tesla is an electric car firm owned by the world's richest man, Elon Musk, who is a poster child for oligarchy. The company earns about US$3,150 in profit per electric vehicle, each containing roughly 3kg of cobalt, mostly mined in the Democratic Republic of Congo (DRC). For each vehicle, the DRC receives less than US$10 in royalties and a miner earns just $7 – meaning it would take nearly two years for a miner to earn what Tesla makes from a single car.[5] In 2024 alone, Tesla made US$5.63bn from 1.79 million electric vehicles sold, while the DRC earned at most US$17.5m in royalties.[6]

Latin America has over 50% of the world's lithium reserves, an essential

mineral for battery technologies that store renewable energy.[7] Extraction is projected to be so intense that in just 11 years, the Lithium Triangle (Chile, Argentina and Bolivia) will produce more lithium than the Spanish empire extracted silver in 300 years of colonial rule.[8] Between 2015 and 2030, this region will produce 1.6 million tonnes of lithium – enough to cover the entire city of Madrid in a 5mm layer of 'white gold'.[9]

Communities across the Global South are having their lands seized, water depleted and rights trampled in the name of the green transition – not only through transition minerals extraction, but also through large-scale renewable energy deployment, and false climate solutions such as biofuels, carbon markets and gas, that often bring them harm rather than benefits. Indigenous-recognized lands threatened by industrial activities[10] largely related to the current extractive energy transition cover 22.7 million km² – an area even larger than Brazil, the United States, and India combined.[11] This is equivalent to almost twice the French colonial empire at its peak.[12]

Without urgent reform to safeguard rights and territories, the transition will only entrench the patterns of over 500 years of energy colonialism, from slave labour and biomass exploitation (timber, charcoal and plantations) through the coal and oil era.

A colonial financial system

Natural resources are not the only site of extraction where energy systems are concerned. The architecture of global finance is equally skewed, shaped by centuries of colonial power and still locking lower-income countries into structural dependence. While rich countries can pour billions into their own clean energy transitions, the Global South is left with rising debt, punishing interest rates and shrinking fiscal space.

In 2024, high-income countries accounted for roughly 50% of global clean energy investment, and China for 29%, while Africa accounted for just 2%, despite sub-Saharan Africa being home to 85% of all the people in the world without electricity.[13] The inequality is not only in where finance flows, but in how much it costs: clean energy projects in the Global South face interest rates of 9–13.5%, compared with just 3–6% in richer countries, slowing the pace of the transition.[14] These costs are not inevitable – they reflect a system that prices risk through the racialized lens of colonial legacies. The impact is stark: powering 100,000 people with clean energy costs about US$95m in advanced economies like the UK, but US$139m (45% higher) in emerging economies such as India and US$188m (97% higher) in African countries such as Nigeria.[15]

Meanwhile, what colonial geographies define as developing countries[16] carry US$11.7 trillion in external debt – more than 30 times the additional investment needed to achieve universal access to electricity and clean cooking by 2030.[17] In 2024 alone, Global South countries paid an estimated US$400bn in debt service.[18]

Reclaiming our energy future from climate colonialism

It does not have to be this way. The energy transition offers a rare chance to rewrite the script – to move beyond extractive models and build an energy system rooted in equality, justice, care and collective prosperity. With the right choices, power can be restructured, ensuring that all countries and all people transition on fair and equal terms. This moment can be a turning point, but only if governments confront structural inequalities shaping the transition.

The Global South could be at the heart of a global just transition: in almost complete reverse to patterns of energy investment, 70% of the world's untapped renewable potential lies in the Global South. The potential to radically transform the energy landscape is tangible. Harnessing less than 1% of the annual solar energy from the Sahara Desert could power all of the Middle East and North Africa for a whole year.[19] Tapping into less than 1% of usable wind energy globally could provide electricity to South-East Asia's 677 million residents.[20] The estimated cost of this wind power, US$321bn, could have been raised globally in the first 10 months of 2024 through a fossil-fuel corporation profits tax.[21]

Rather than treating the energy future as a race with few winners, we must reimagine it as a shared global project. Energy should not be hoarded, withheld, or used as leverage for geopolitical or corporate power.
This structural change requires reparative justice: making rich polluters pay, redistributing resources, confronting overconsumption and prioritizing the rights of those historically excluded while embracing economic models that put equality, wellbeing and ecological limits at the centre. Tackling inequality is both a moral imperative and an effective strategy for climate mitigation.

More equal societies demand less growth to meet basic needs and less energy to deliver wellbeing for all.[22] A just energy transition must therefore not only decarbonize but also reshape systems to reduce poverty, redistribute power, and secure wellbeing within planetary boundaries. The Modern Energy Minimum (MEM) sets a floor of 1,000kWh per person per year, challenging narrow 'basic needs' definitions of energy access. It is a bare minimum for dignity and development rights in the Global South, not a ceiling. Prioritizing this threshold is essential, but it also requires cutting excessive and luxurious energy use in the Global North. We can provide energy for all and stop climate breakdown, but only if we radically reduce inequality.

Communities, workers and progressive governments are already advancing just approaches to energy, following a 500-year legacy of resisting colonialism – fighting extraction, reclaiming control over resources, and building systems that prioritize public need over private profit. From Indigenous and women-led renewable projects to unions advocating the right to decent work and national efforts asserting energy sovereignty, these examples show alternatives are not only possible but already unfolding. This is underpinned

by political and ecological visions affirming our collective right to decide how energy is generated, distributed and used – as a public good and human right.

There is no single blueprint for a just transition – it will differ across contexts, shaped by diverse histories, knowledge and needs. But all just transitions must share one principle: energy should serve life, not profit.

Recommendations for a just energy transition

To start reshaping the energy transition around equality, justice and collective prosperity, the following key actions need to be taken.

- **Differentiated transition pathways**: Countries must tailor energy transition strategies based on historical responsibility and capacity, ensuring high-emitting nations rapidly cut emissions, holding fossil-fuel companies and the ultra-wealthy accountable, and preserving sufficient carbon space for lower-capacity nations.
- **Equitable energy consumption:** Fulfil ambitious reduction targets and sufficiency measures in the Global North, focusing on the wealthiest and highest emitters, while promoting circular economy strategies and universal equitable access standards, such as the MEM, to ensure fair distribution.
- **Reformed financial system:** Overhaul trade and investment systems to enable domestic value addition and industrial development in the Global South, allowing these countries to move away from fossil-fuel dependency and supporting energy sovereignty and progressive taxation globally.
- **Transformative climate finance:** Replace extractive financial models flowing from South to North with debt cancellation, grant-based climate finance, and reparations initiatives that prioritize equality, local communities, the planet and gender justice over profit.
- **Communities and nature safeguarded:** Guarantee free, prior and informed consent (FPIC) for all projects, respect for and fulfilment of land rights, including prohibiting land grabs and forced evictions, protect critical ecosystems where resources are more valuable left in the ground, end sacrifice zones and ensure equitable local benefits from energy development.
- **Democratic energy governance:** Shift ownership and decision-making from private to public interest, ensuring energy is treated as a human right to fuel inequality reduction and enabling communities to shape their energy future through transparent, inclusive and gender-transformative governance.
- **International coordination and justice mechanism:** Adopt an international mechanism at COP30 to ensure policy coherence and accelerate, consolidate and achieve a holistic just transition, with the mandate and capacity to coordinate, finance and monitor initiatives worldwide, ensuring accountability and embedding justice at all policy levels.

INTRODUCTION: CLIMATE COLONIALISM UNDER THE GUISE OF CLIMATE DIPLOMACY

The world stands at a pivotal moment. As the impacts of climate change escalate – from devastating floods and wildfires to deadly heatwaves and growing food insecurity – the urgency of transitioning away from fossil fuels is beyond doubt. But as the energy transition gathers pace it raises deeper, often overlooked questions: who stands to benefit, and who bears the cost?

Despite widespread consensus on the need to shift to renewable energy, the transition is unfolding in ways that risk reproducing, or even deepening, the inequalities and injustices of the past. These inequities cut across borders, affecting workers, communities, racialized groups, women, Indigenous Peoples and other marginalized populations in both the Global South and Global North – yet their heaviest toll is extracted from those living in territories still marked by the open wounds of colonialism.

Climate colonialism refers to the ways in which a small number of wealthy countries are shaping the energy transition to serve their own interests.[23] Two patterns stand out.

First, the extraction of transition minerals such as lithium, cobalt, nickel, copper and rare earths, the exploitation of land and ecosystems for bioenergy, the deployment of large-scale renewable energy sources such as hydropower, wind and solar, and the expansion of carbon credit schemes are together reviving familiar patterns of colonial plunder. Mining operations, often under foreign ownership, are growing rapidly across the Global South, sometimes with no or minimal community consent, limited local benefit and often significant environmental and social harm. Renewable energy projects are increasingly expanded through supply chains rooted in worker exploitation, land grabs and deceptive arrangements with communities – resulting in livelihood and health losses, displacement, and the erosion of local ways of life. In this context, the energy transition is creating new sacrifice zones and driving violence against land and environmental defenders. These injustices are enabled and exacerbated by a lack of recognition of the rights of Indigenous Peoples and other marginalized communities to their traditional lands and territories.

Second, an economy built on the extraction of capital means many lower-income countries are being locked out of the transition altogether, despite

significant renewable potential and the urgent need to phase out fossil fuels. Despite the falling cost of renewables, high debt burdens, unfair lending terms and structural tax injustices make it difficult for governments to invest in energy access or in the public infrastructure and protections needed to ensure a just transition, and leave some governments trapped in fossil-fuel production to repay debts.[24] Meanwhile, wealthy governments and institutions continue to promote financing models that prioritize returns for rich investors over community benefit and public good, and endorse global trade and intellectual property regimes that hinder access to renewable technologies.[25] Moreover, by putting their full weight behind corporate-led energy transitions, governments and institutions foreclose the possibility of imagining more regenerative and democratic energy and economic systems.

These dynamics reflect deeper legacies. Industrialization, powered by fossil fuels, was built on centuries of colonialism, extractive capitalism and patriarchy. Fossil fuels powered imperial conquest and industrial expansion, while their costs – from environmental destruction to gendered labour exploitation – were mostly externalized to the Global South. Meanwhile, since the end of formal colonialism, development in many regions has perpetuated inequalities created by the colonial era, focused on integrating economies into global markets as sources of cheap resources and labour, doing little to build genuine economic autonomy and leaving many countries trapped in cycles of dependency, debt and poverty. Today's clean energy transition, if left to the current systems of power and finance, risks continuing that trajectory.

This report argues that the energy transition must be more than a technological shift. It must also be a structural transformation: one that confronts continued colonial relations, resists the financialization of life-sustaining systems, ensures decent work, and reimagines energy as a tool for reducing inequality, care and people-centred diverse pathways to development.

The need for justice – what is at stake

A just, equal and transformative energy transition offers a powerful alternative to the current trajectory. It pushes us to look beyond carbon and technology, and to confront deeper questions of power, inequality and accountability.

A truly just transition rests on five interlinked dimensions:

- **Recognition justice:** respecting the rights, knowledge systems and lived experiences of marginalized communities.
- **Procedural justice:** ensuring inclusive, democratic and transparent decision-making.
- **Distributive justice:** reducing inequality by fairly sharing both the benefits and burdens of the transition.
- **Remedial justice:** redressing past and ongoing harm through structural change and meaningful reparation.

- **Transformative intent:** going beyond avoiding harm to tackle the root causes of injustices. This also means having a long-term vision, working within existing structures while enabling the emergence of fairer alternatives that dismantle colonialism.

These dimensions must be underpinned by a commitment to **gender justice**. Across every aspect of the transition – from land rights to labour, from finance to governance – women and gender-diverse people face disproportionate risks and barriers. Yet they are also at the forefront of sustaining communities and driving local solutions. A truly just transition must not only prevent gendered harms, but also actively put the leadership, knowledge and priorities of women, girls and gender-diverse people at the centre, by redistributing power and resources. This means embedding care, wellbeing and relational approaches to sustainability across all dimensions of transition planning and policy.

Too often, energy strategies fail on every front of justice. Projects are imposed without consent, profits extracted while communities face displacement and environmental harm, and those most affected by the climate crisis are systematically excluded from decision-making. A just transition is not a luxury – it is a prerequisite for ensuring that the shift to renewable energy happens at the speed required and improves living standards for all.

As this report will show, there are signs of progress: communities around the world are reclaiming their energy futures, often with women at the forefront, workers are conquering labour rights within the transition, and some governments are starting to prioritize care and wellbeing in economic policy. These advances are also legacies of more than 500 years of collective resistance to colonialism, capitalism and patriarchy. But these efforts remain fragmented, under-resourced and sidelined by the economic status quo. Far more is needed to make justice the foundation, not the afterthought, of the global energy transition.

Outline of this report

Section 1 sets out how current energy transition dynamics – from transition minerals and biomass to renewable energies and carbon offsetting – are reinforcing extractive, exploitative, financialized and unjust systems. It shows how the dimensions of justice are too often ignored, with serious consequences for people and planet.

Section 2 turns to possibility. It outlines a vision for fast, just and transformative transitions that are grounded in community leadership, workers' rights, feminist economics and global cooperation. It identifies real-world alternatives and policy pathways for shifting power and ensuring that transitions serve people, not profit.

The final section draws together recommendations – from finance to trade reform to public participation – to ensure that justice is the foundation of the energy transition.

The stakes are high. The transition can either entrench a new phase of colonialism and inequality under a green banner, or lay the groundwork for a fairer, more equal and caring world – as well as a renewable and regenerative one. At this crossroads, justice must lead the way.

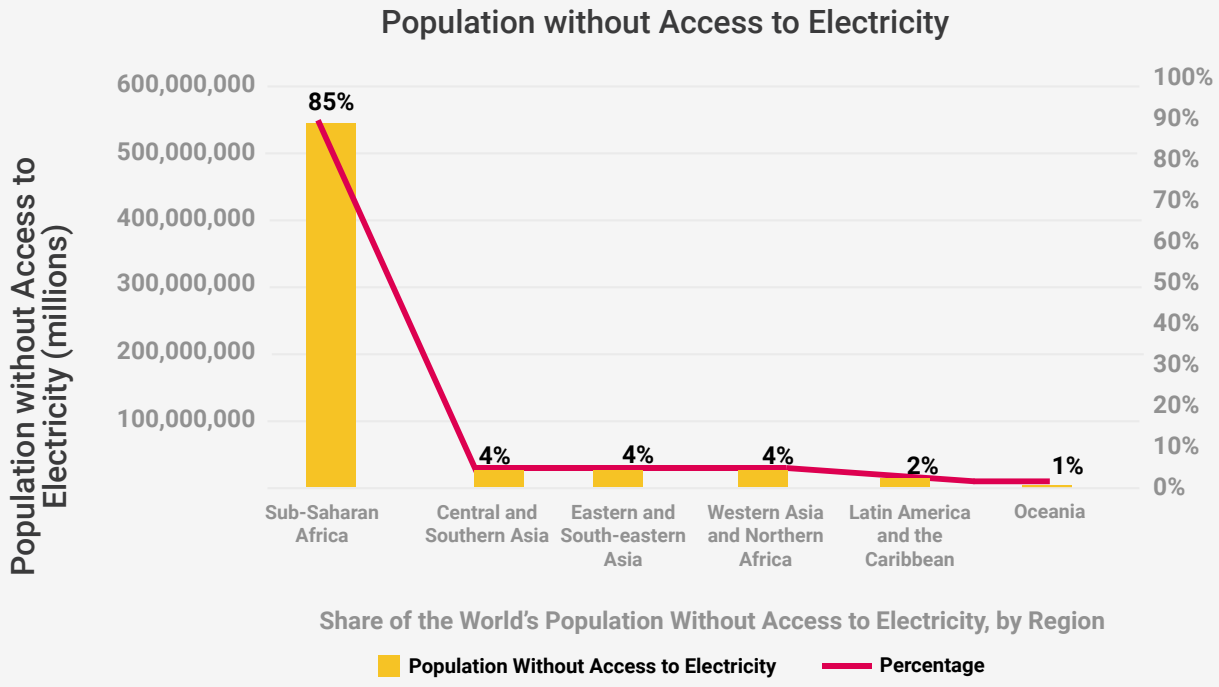
Outline of the current global energy system and the transformative shifts needed

Current system	Transformative shift needed
Private finance-first approaches that prioritize returns through blended finance and using public money and guarantees to lessen the risks for private capital	**Public and grant-based finance** that prioritize community needs and enables public control
Energy as a commodity, controlled by corporations and investors	**Energy as a public** good and human right, governed democratically
Renewable energy deployed through centralized systems that prioritize main grid-connected areas, mainly major cities and industrial developments	**Renewable energy implemented as a mix of centralized and decentralized systems,** serving both urban centres as well as marginalized and rural communities
Global economic rules that entrench dependency through debt, tax evasion and investor protections	**Rewritten rules** that enable sovereignty, redistribution and just development pathways
Land and resource grabs displacing communities for 'green' energy infrastructure	**Guaranteed free, prior and informed consent (FPIC),** full and legal recognition and protection of land rights, including customary and collective rights, focusing on women, Indigenous Peoples and other racialized groups
Exploitative labour in energy transition sectors and worsening neglect of workers' rights as they are left behind in the phasing out of fossil fuels	**Decent work and social protection** are standard in energy transition sectors, with workers fairly compensated and supported through reskilling
Technocratic, top-down projects designed without local participation	**Inclusive community-led solutions** rooted in democratic governance and decision-making processes, care and place-based knowledge
Carbon markets and offsets used by polluters to delay real climate action	**Polluter-pays approaches** and direct emissions reductions by major emitters
Overconsumption in the Global North, especially by the richest people, driving resource depletion and inequality	**Energy sufficiency, efficiency and redistribution,** meeting human needs within planetary boundaries
Debt-driven climate finance and shrinking aid budgets	**Reparative climate finance,** delivered through grants, debt cancellation and progressive taxation

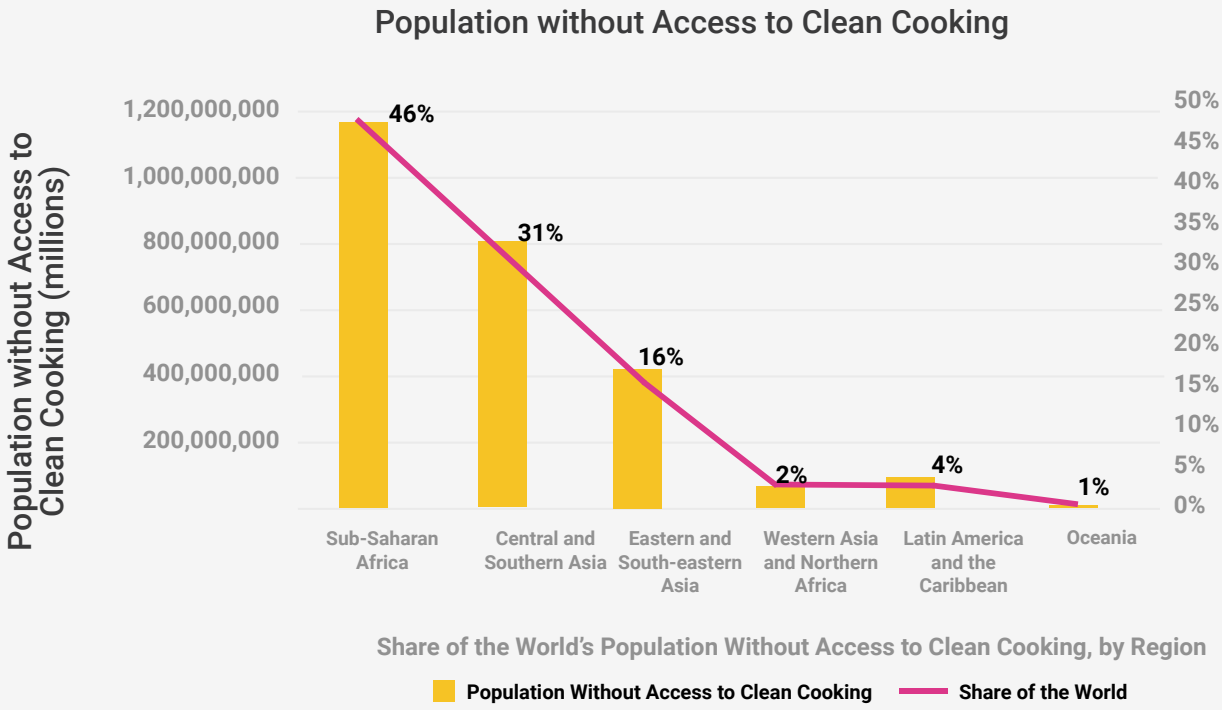
REPEATING THE PAST: AN UNJUST, COLONIAL AND EXTRACTIVE TRANSITION

Energy, inequality and the politics of power

Energy is essential to a safe, dignified life. It powers homes, enables clean cooking and water access, and underpins healthcare, education, livelihoods and mobility. Yet access to affordable, reliable and clean energy remains profoundly unequal. Around 666 million people still live without even basic access to electricity, and 2.1 billion lack access to clean cooking fuels.[26] Energy poverty is highly concentrated. Sub-Saharan Africa accounts for 85% of the global population without electricity, while the Global North has near-universal access. The populations of South Asia and sub-Saharan Africa make up over 90% of those lacking access to clean cooking, with the Global North representing just 5%.[27] One air conditioner in a wealthy European household uses as much electricity in a year as the total annual energy access of five households in energy-poor communities in sub-Saharan Africa.[28]



Own elaboration from external data source [29]



Own elaboration from external data source.[30]

These disparities are not inevitable: they are the product of deeply embedded systems of injustice, shaped by colonial legacies that underpin many of today's global economic hierarchies. Nowhere is energy inequality more visible than in the lives of women and girls, who bear the brunt of energy poverty. Equitable energy access could affect over 389 million women globally who currently rely on emission-intensive fuels, prevent more than 3.2 million premature deaths annually from household air pollution, and free up an average of 20 hours of labour per week per woman globally.[31] Women in rural South Asian communities collectively spend an estimated 507.38 million hours each day collecting fuel, which is equivalent to US$1.52bn in unpaid care work daily.[32] This labour forms part of a wider system of unpaid care work that is both indispensable to society and systematically undervalued. Globally, women's unpaid care and domestic work is estimated to contribute over US$10.8 trillion in value annually, yet it remains invisible in most energy and development policy frameworks.[33]

Because energy underpins so many aspects of life and development, it is inherently political. Control over its production and flow determines who benefits, who is left behind, and whose priorities shape our collective future. Historically, fossil fuel-based systems – centralized, extractive and prone to monopoly control – were instrumental in consolidating the power of corporations and colonial states.[34] While fossil fuels were not always extracted in colonized territories, their use powered imperial expansion, enabled extractive infrastructure and disproportionately served colonial elites, entrenching global hierarchies of access and control. These systems were instrumental in enabling the economic expansion of the Global North, extracting wealth and resources from the Global South while externalizing the environmental and social costs at the core of the climate crisis.[35]

These imbalances did not disappear with the end of formal colonial rule. Political independence in many Global South countries often left in place economic structures and technologies that continued to serve Global North interests. The North's head start in industrialization and technology development translated into enduring advantages in owning and patenting the technologies that underpin the fossil-fuel economy. One of the most significant successes for the Global South came when countries seized control of foreign-owned fossil-fuel corporations and established the Organization of Petroleum Exporting Countries (OPEC) in the 1960s, demonstrating new collective power in the international arena and influence in global energy politics.[36] Yet even when crude oil and gas in the Global South is owned by national companies, Northern firms still retain influence through the control of technology, capital and high-value segments of the supply chain. This historical imbalance is reflected today in stark energy inequalities. Even now, an average person in the Global North consumes enough energy in one year to meet the modern energy needs of over 45 people in the Global South.[37]

While this colonial imbalance between North and South remains the defining feature of the global economy, patterns of extraction and exploitation have also played out within the North itself. In the USA, coal, oil and gas development has devastated Indigenous lands – from uranium mining on the Navajo Nation[38] to oil pipelines cutting through the territories of the Sioux and other nations.[39] In the UK, coal extraction underpinned industrial growth while exposing generations of working-class communities in the north of England, Scotland and Wales to dangerous conditions, poverty wages and eventual abandonment through an unjust transition to deindustrialization.[40] These examples show that colonial logics of extraction do not stop neatly at national borders; they also operate through hierarchies of race, class, gender, age and geography within countries. They are part of a global system in which the benefits continue to flow disproportionately to rich elites in the Global North, while costs are most acutely felt by those with the least power.

Within the Global North, there is huge inequality in who benefits from the ongoing extraction and exploitation of resources from the Global South. The wealthiest individuals in the Global North consume an astonishing amount of energy and resources, fuelled by their use of carbon-intensive luxury goods like yachts and private jets. A single person in the richest 1% of Global North countries consumes enough energy in one year to meet the modern energy needs of 440 people in the Global South.[41] Over the past 60 years, the Global North has consumed more than 3,300 petawatt hours (PWh) of excess energy – or beyond modern basic needs – enough to power the world for nearly 20 years.[42] On average, each person in the Global North has used six times more excess energy than a person in the Global South. If we put a price on all this extra energy, it would be worth more than US$454 trillion. More broadly, in the last decade the richest 10% of people have consumed half of all global energy, while the poorest 50% have shared just 8%.[43]

The inequalities embedded in this system laid the foundations for today's climate inequality. The richest 1% of the global population use so much energy that, if everyone consumed at the same rate, the world's remaining carbon budget – the amount of CO_2 humanity can emit to stay within the target of 1.5°C of warming – would be depleted within months.[44] Meanwhile, many resource-rich countries remain energy-poor at home, continuing to export energy and transition minerals under terms that favour external markets over local needs.

Yet the global shift away from fossil fuels presents a pivotal opportunity to break from this legacy of injustice. A just energy transition is not just desirable; it is an absolute necessity to dismantle inequality, eradicate poverty and build a better world for all. In a world grappling with escalating inequality and billions of people living in poverty – often exacerbated by a lack of access to energy – managing this transition equitably is imperative. Failure to do so means failing to address poverty and inequality, which in turn means failing to tackle the climate crisis. If done equitably, the energy transition could enable countries to go beyond fossil-fuel dependency and build inclusive and people-centred energy systems that pave the way for social and economic development.

Access to clean and affordable energy is a basic right, but it is not just that – it is also catalytic, unlocking improvements in education, health, gender equality and climate resilience. But this promise will be realized only if we confront the structural inequalities embedded in today's transition. As this section shows, without deliberate efforts to put justice at the centre, the transition risks repeating the very dynamics of extraction, dispossession and exclusion that have defined the global economy and energy system.

From colonialism to climate justice

The rise of fossil fuels was central to the expansion and maintenance of colonial empires. Coal powered the ships, railways and factories that enabled imperial conquest, facilitated the extraction of resources, and integrated colonies into global markets on highly unequal terms. Later, oil became strategically vital to military and industrial dominance, particularly in the 20th century. Colonial powers such as Britain and France built extractive infrastructure – not to serve local development, but to efficiently transport goods, people and profits to the imperial core. These systems laid the foundation for global inequalities in infrastructure, industrial capacity and emissions that persist today.[45]

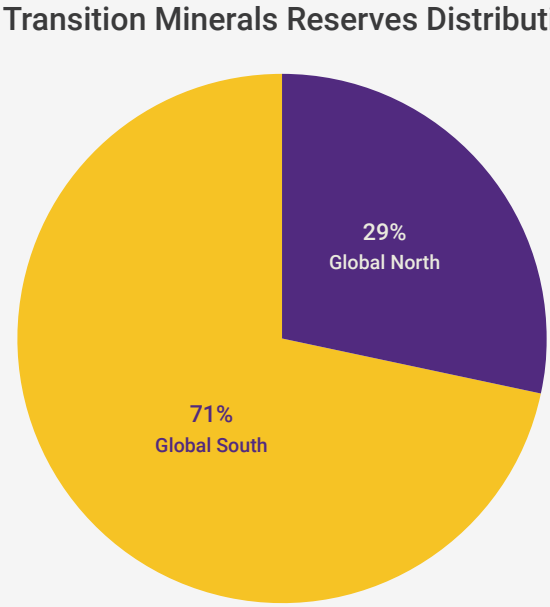
The legacy of these extractive systems continues to shape contemporary patterns of climate vulnerability and economic precarity. Take the example of Bangladesh – a country responsible for just 0.45% of global emissions, yet among those most acutely affected by climate change.[46] Under British colonial rule, farmers in Bengal were coerced into growing indigo for European textile industries instead of food crops, undermining local food systems and entrenching an export-oriented, extractive production model. These same industries fed the carbon-intensive development of the Global North.

Today, many descendants of those farming communities face climate-induced

displacement due to cyclones, flooding and salinity intrusion, and migrate to urban areas to work in the ready-made garment sector. This sector – employing over four million workers and accounting for 85% of Bangladesh's exports – is now under pressure from international brands to decarbonise.[47] Yet many factories lack the finance, technology or infrastructure to do so. Those that are unable to comply risk closure, putting already precarious livelihoods at further risk and compounding historical injustices rooted in colonial trade and energy systems.

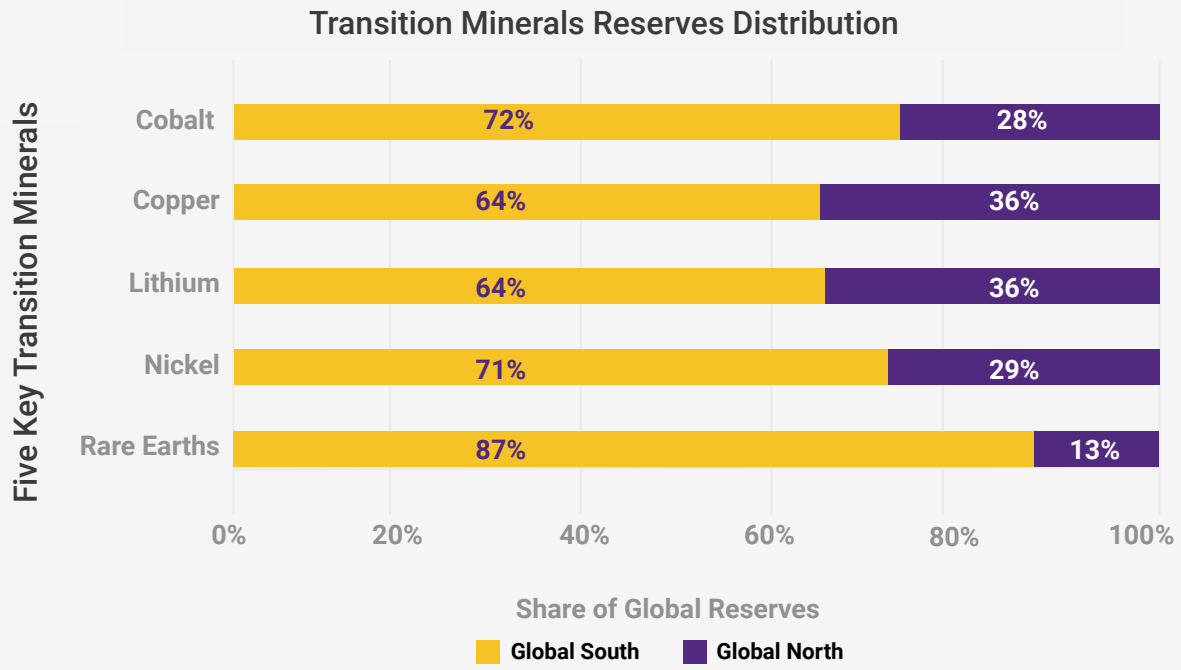
The extractivist race for minerals

The world abounds with renewable energy sources – sunlight, wind, tides and geothermal heat. Yet the technologies used to harness them are far from 'renewable'. Solar panels, wind turbines, batteries and electric vehicles rely on large quantities of finite materials: lithium, cobalt, copper, nickel and rare earth elements. These transition minerals, though not burned like fossil fuels, do not regenerate. They must be extracted, often at immense social, environmental and political cost.



Own elaboration from external data source.[48]

The Global South holds roughly 70% of transition minerals reserves, including up to 72% of cobalt, up to 64% of lithium, around 71% of nickel, up to 64% of copper and around 87% of rare earth minerals.[49] These resources are also highly concentrated in a few regions: over 70% of the world's cobalt is sourced from the southern provinces of Democratic Republic of Congo (DRC),[50] nearly 50% of lithium reserves lie in the 'Lithium Triangle' of Argentina, Bolivia and Chile,[51] and South-East Asia and the Pacific – particularly Indonesia and the Philippines – account for more than 55% of global nickel production.[52]



Own elaboration from external data source.[53]

This dynamic is part of a continuum of colonial extraction. Latin America holds nearly half of the world's lithium but captures only about 10% of the lithium battery value chain at the national and regional levels, mostly through royalties, taxes and limited domestic processing. Miners themselves take home less than 2 cents for every dollar of battery value.[54] In just 11 years, South America will extract more lithium than the Spanish empire extracted silver during 300 years of colonial rule – yet more than 90% of the value is captured outside the region, largely by companies in China, Europe and the United States.[55] Between 2015 and 2030, the Lithium Triangle is projected to produce 1.6 million tonnes of lithium: enough to cover the entire city of Madrid in a 5mm layer of 'white gold'.[56]

As the economic powerhouses of the Global North race to decarbonize, the Global South will again be increasingly relied upon for resource extraction. While the world must invest heavily in demand reduction, recycling and circular economy approaches to curb the need for new mining, fully developing these more sustainable supply chains will take time. Even then, some mining of energy transition minerals will still be needed. Where extraction continues, it must take place under the highest environmental and human rights standards, be grounded in community consent and gender justice, and benefit local economies. Yet under current global power structures and economic models, characterized by foreign ownership, limited domestic value addition and unequal trade terms, mining is more likely to deepen existing inequalities than to reduce them. If extraction is to be part of a just energy transition, it must actively reverse rather than reinforce historical patterns of exploitation.

Communities and workers on the frontline of extraction

Across many of the world's mineral-rich regions, the expansion of mining operations to supply the energy transition is already having devastating impacts on communities, workers and ecosystems. These projects are not abstract risks – they are real, lived experiences of harm, often reproducing colonial patterns of dispossession, environmental degradation and exclusion.

In the past year alone, over a dozen mining companies have been linked to a record 156 allegations of human rights abuses tied to the extraction of minerals such as nickel, lithium and zinc. Since 2010, more than 800 such allegations have been documented, involving harm to workers, Indigenous Peoples, communities and ecosystems.[57] Mine workers – who are, in most cases, local community members or migrants from similarly impoverished regions – continue to face precarious and exploitative conditions. Materials like silicon metal from China and cobalt from DRC are often sourced under conditions involving forced labour, child labour and other rights violations.[58]

In South-East Asia, rich in nickel, cobalt and rare earths, extractive operations in Indonesia,[59] Malaysia[60] and the Philippines[61] have frequently bypassed community consent. Corporate deals negotiated by national elites and foreign investors behind closed doors exclude Indigenous Peoples and rural communities from decisions affecting their lands and livelihoods. Procedural injustices abound, as do distributive ones: while multinational corporations and national elites profit, local communities are left with polluted water, health risks, precarious low-wage jobs and the loss of farmland. In DRC, which supplies most of the world's cobalt, mining has led to serious human rights abuses. Communities have been subjected to forced evictions and the violent destruction of homes and livelihoods – with little compensation or recourse to justice.[62]

In Espinar, Peru, Glencore's copper operations offer a stark example of how extractive practices can undermine justice and accountability.[63] Since acquiring the Antapaccay mine in 2013, the company has been linked to toxic water contamination, with official reports confirming mining as the source. Yet Glencore has denied responsibility and failed to meet its commitments to free, prior and informed consent. Instead, it relied on less stringent national consultation requirements that do not consistently uphold collective decision-making. Glencore's broader track record, including corruption scandals, human rights concerns and operations based in tax havens such as Jersey and Switzerland, illustrates how the current extractive model lacks sufficient corporate accountability and continues to externalize costs onto communities that are least responsible for the crisis.[64]

Power asymmetries in trade

These injustices are not isolated incidents – they are symptoms of a deeper structural imbalance in the global energy economy. The power to decide how and where extraction takes place, who benefits from it, and at what cost, is shaped not only by national decisions but also by global trade and investment rules.

These rules systematically reinforce unequal power relations: Global North governments and corporations sit at the top, controlling investment flows, setting trade standards and dominating mineral refining and clean technology manufacturing. Meanwhile, international financial institutions and trade bodies in the middle tier push structural reforms and trade liberalization, often curtailing the policy space of Global South countries. At the base of this system are producer countries – supplying raw materials and shouldering environmental and social costs, but with limited bargaining power to shape how the transition unfolds.

This plays out in trade agreements, many of which restrict the very tools that resource-rich countries need to add value domestically – including export restrictions, local content rules, or technology transfer requirements. For instance, the EU–Indonesia Comprehensive Economic Partnership Agreement (CEPA), currently under negotiation, could constrain Indonesia's ability to pursue downstream processing by prohibiting temporary export bans or tariffs on raw nickel – despite these being central to its national development strategy.[65] Similar provisions appear in trade and investment agreements across the Global South.

The risks of such constraints are already visible in other mineral-rich countries. Research reveals deep inequalities in mineral supply chains, offering a warning of what could be at stake for Indonesia. For instance, consider the cobalt supply chain. Around three-quarters of global cobalt extraction takes place in DRC, which supplies the electric vehicle industry.[66] Tesla is an electric car firm owned by the world's richest man, Elon Musk, who is a poster child for oligarchy. The company earns nearly US$3,150 profit for each electric vehicle sold, each of which contains about 3kg of cobalt.[67] Meanwhile, the DRC government receives less than US$10 in cobalt royalties per vehicle – meaning that Tesla's profit per vehicle is 321 times greater than the royalties earned by the country supplying this essential mineral.[68]

Looking at the broader picture, in 2024, Tesla reported a net income of US$5.63bn from the sale of 1.79 million electric vehicles. If all the cobalt in those vehicles came from DRC, the country would have earned only around US$17.5m in royalties – a fraction of Tesla's profit.[69] At the other end of the supply chain are miners, some of whom earn as little as US$7 for the amount of cobalt used in each electric vehicle. To put this disparity into perspective: a Congolese miner earning the minimum wage of US$5 per day would need to work for nearly two years to make what Tesla earns from just one electric vehicle.[70]

Although DRC produces nearly three-quarters of the world's cobalt, it retains only 14% of its supply chain revenue, while foreign investors and entities retain 86%.[71] This is very significant, given that nearly 99% of DRC's export earnings come from minerals. If the country captured the full revenue of the cobalt industry, it could gain an additional US$4.13bn annually, equivalent to 5.2% of its gross domestic product (GDP) – enough to provide modern clean energy access to half of its nearly 110 million population.[72] At that pace of recovered revenue, the approximately 84 million people currently without electricity in the DRC could gain access in just nine months.[73]

This systemic inequality has also surfaced in global climate negotiations. One key concern raised by least developed countries (LDCs) and the G77 negotiating bloc is the imposition of unilateral trade measures by Global North countries that undermine the Global South's transition efforts. A prominent example is the Carbon Border Adjustment Mechanism (CBAM), proposed by the European Commission in July 2021. CBAM requires exporters to the EU to pay for the carbon content of certain goods – such as steel, aluminium, cement and electricity – if their countries have weaker emissions regulations. The UN Conference on Trade and Development (UNCTAD) warns that CBAM could disproportionately harm LDCs by making their exports less competitive, reducing revenues for essential public services and undermining green investments for the transition. Countries such as Mozambique (aluminium and steel), Zambia (steel) and Guinea and Sierra Leone (bauxite) could face serious economic setbacks, despite contributing minimally to global emissions.[74] For example, Mozambique's dependence on carbon-intensive aluminium exports to the EU makes its economy particularly vulnerable to import carbon taxes, which could decrease demand and increase costs.

Trade agreements also frequently include investor–state dispute settlement (ISDS) clauses, giving multinational corporations and their rich shareholders the power to challenge and sue government policies in secretive tribunals, including policies in the public interest – whether aimed at environmental protection, human rights or equitable development. The ISDS system is rooted in the postcolonial era, designed in the 1950s to 1970s to protect capital flows from the Global North as newly independent states reclaimed control over their economies.[75] Today, the system continues to institutionalize asymmetrical power relations, extracting value and transferring public money into the hands of a few. Reform of this system is essential as it deepens inequality and undermines the ability of countries to plan and finance their just transitions, exposing them to costly legal risks.[76]

The ISDS system reflects the broader imbalance in corporate control. According to Global Witness, between 71% and 81% of global mining production is controlled by companies headquartered in advanced economies – a stark reminder that Global North countries, and specifically the elite actors within them, continue to dominate the most profitable segments of mineral value chains.[77] Without reform of both trade and investment regimes and the corporate concentration they protect, producer countries will remain trapped

in a model of raw material extraction, unable to develop the downstream industries and policy autonomy needed for a just energy transition.

Securing supply, reinforcing inequality

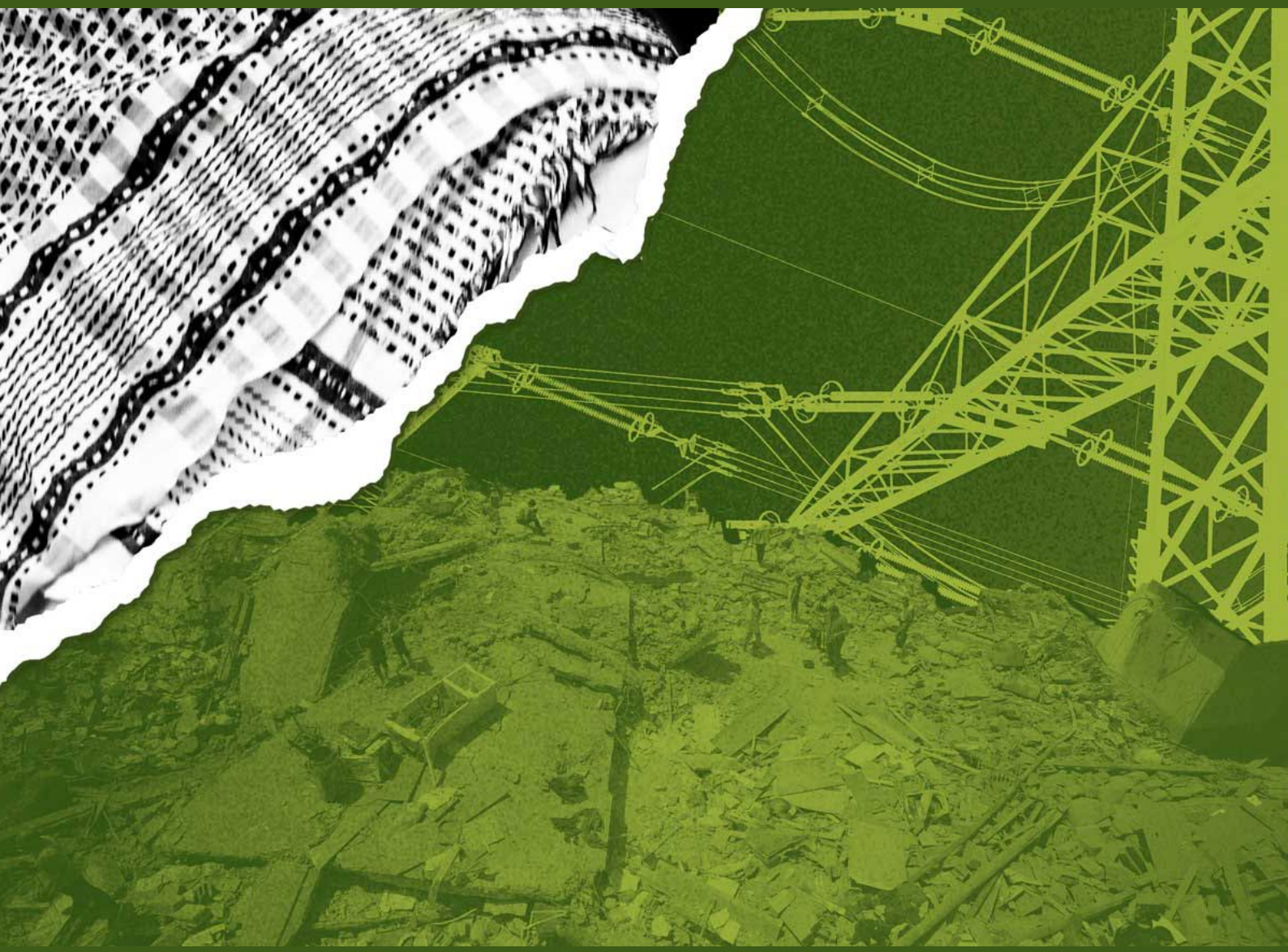
These trade and investment imbalances are compounded by a growing trend to frame transition minerals as 'critical' – linking them to national security, industrial policy and geopolitical influence. While resource-rich countries have a legitimate interest in shaping how their minerals are used to support development, the current strategies of many high-income countries prioritize supply security over equity and cooperation. It is important to remember that transition minerals are vital not only for the clean energy sector, but also for military applications – fuelling a renewed global scramble that risks deepening inequalities, environmental harm and violence.

A key concern is the exploitation of crises to strike mineral deals that disadvantage resource-rich countries, echoing the logic described in Naomi Klein's *Shock Doctrine*,[78] where aid and support are conditioned on the erosion of national sovereignty. The recent critical minerals agreement between Ukraine and the USA exemplifies this dynamic.[79] At the same time, as Arctic ice recedes, new frontiers like Greenland are also being targeted, revealing how climate action is becoming entangled with the same extractive and competitive logic that fuelled the climate crisis.

Simultaneously, Global North countries and emerging economic powerhouses such as China – driven by nationalist agendas – are securing bilateral mineral deals and reinforcing extractive power dynamics.[80] Initiatives like the EU's Global Gateway, the US Minerals Security Partnership and China's Belt and Road Initiative reflect this accelerating resource race. Meanwhile, African-led efforts such as the Africa Mining Vision and the Africa Green Minerals Strategy aim to transform mining into a driver of regional development, value addition and industrial sovereignty.[81] The Africa Green Minerals Strategy in particular emphasizes the importance of processing and manufacturing critical minerals within the continent, rather than exporting them in raw form, in order to maximize economic benefits for African countries. Yet these ambitions remain largely unrealized. As noted in the Strategy, this vision is 'dramatically constrained by economies of scale (small markets) caused by the incoherent balkanization of Africa by the European Empires in the nineteenth century', highlighting the enduring legacy of colonialism in fragmenting markets and weakening regional integration.[82]

Realizing this vision will require not only investment and cooperation but also structural reform of the global trade and finance systems that continue to limit the Global South's agency and autonomy in shaping the energy transition. A just transition must reject this zero-sum approach and instead emphasize equity, care and collective stewardship of our shared future.

Colonialism and energy in the Occupied Palestinian Territory



In the Occupied Palestinian Territory, energy access is shaped by a long-standing system of Israeli territorial control, demographic engineering and resource exclusion aimed at consolidating dominance over Palestinian land and population. By 2020, 83.8% of the electricity supply in West Bank and Gaza was provided by Israel. Palestinians face chronic energy poverty – including an electricity crisis that has been ongoing since 2008, marked by a 310MW daily household deficit – and some of the highest energy prices in the region.[83]

A policy of centralizing energy systems and obstructing local energy production has been in place since the time of the Mandate, maintaining near-total control over energy imports, infrastructure and distribution. From the 1920s, when the Palestine Electric Company (PEC) was granted a monopoly that concentrated infrastructure in Jewish settlements and blocked Arab electrification, to the period between 1948 and 1967, when the Israel Electric Company (IEC) expanded monopolistic control across newly occupied territories, to the Oslo process, which created institutional chokepoints over Palestinian energy and finances

– electricity provision became a central tool of colonial domination and progressive occupation, rooted in exploitation and extraction.[84]

Since October 2023, reports document how the Israeli military intensified attacks on Gaza's already fragile energy infrastructure, cutting electricity, disrupting fuel and water services, and weaponizing energy access. The UN experts have affirmed that these practices constitute collective punishment and breach international humanitarian law by targeting civilian infrastructure indispensable for survival.[85] As of June 2025, an estimated 70% to 90% of Gaza's electricity networks and solar installations have been damaged or destroyed,[86] including deliberate attacks, such as the bulldozing of solar panels that powered wastewater treatment facilities.[87] Gaza's only power plant ceased operations on 11 October 2023 after fuel supplies were exhausted under the conditions of a strict blockade, plunging 2.2 million people into a complete blackout.[88]

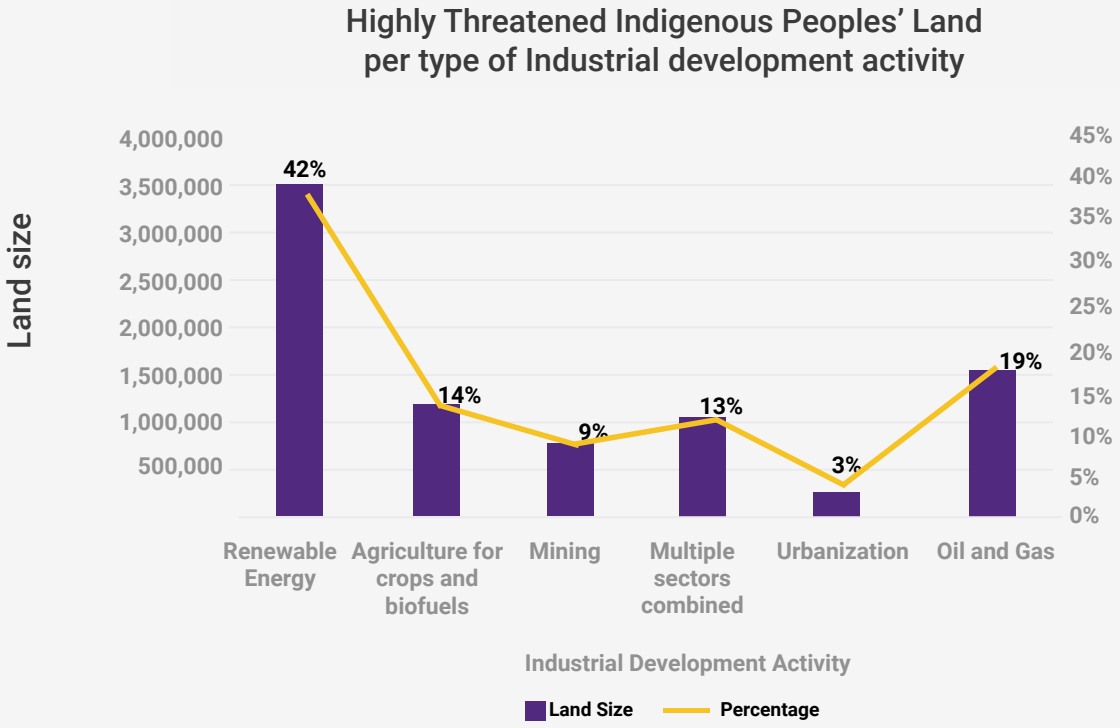
Across the West Bank – including Area C, where Israel retains full civil and military control – Palestinian efforts to develop solar and wind energy are systematically obstructed. Permits are routinely denied, and donor-funded or community-led renewable energy projects are often dismantled or confiscated under the pretext of lacking Israeli authorization, even in Areas A and B.[89] On the other hand, Israeli settlers in the West Bank are deploying clean energy on occupied land. At the same time, Israel promotes renewable energy agreements with neighbouring countries, which risk obscuring the climate injustices Palestinians face – such as the desalinated water-for-solar energy deal with neighbouring Arab states, known as the Prosperity Project.[90]

Despite these constraints, some Palestinian communities have found ways to resist, developing decentralized and small-scale renewable energy solutions that build resilience, including makeshift wind turbines placed over tents and communal charging stations powered by the few remaining solar panels.[91] Amid the current crisis, actors are beginning to articulate a vision for a green reconstruction rooted in justice and energy sovereignty. However, without dismantling the structural violence of occupation, ensuring Palestinian control over land and resources, and building systems that prioritize people and planet over profit, a truly just energy transition remains out of reach.[92]

Green energy, old grabs: land dispossession in the new climate frontier

Across the world, the rollout of clean energy infrastructure is intensifying demand for land. From wind and solar farms to bioenergy production and green hydrogen projects and transition mineral mining, these developments require vast territories, often in areas inhabited by Indigenous Peoples, farming communities and those who hold land through customary or collective tenure.

Sixty percent of Indigenous lands covering around 22.7 million km² – an area roughly the size of Brazil, the USA and India combined – are currently under threat or face imminent threat from industrial development largely linked to the energy transition, including mining, large-scale renewable projects, oil, gas and industrial agriculture.[93] These overlapping pressures are exacerbating existing land inequalities and raising urgent concerns about repeating an unjust past.



Own elaboration from external data source.[94]

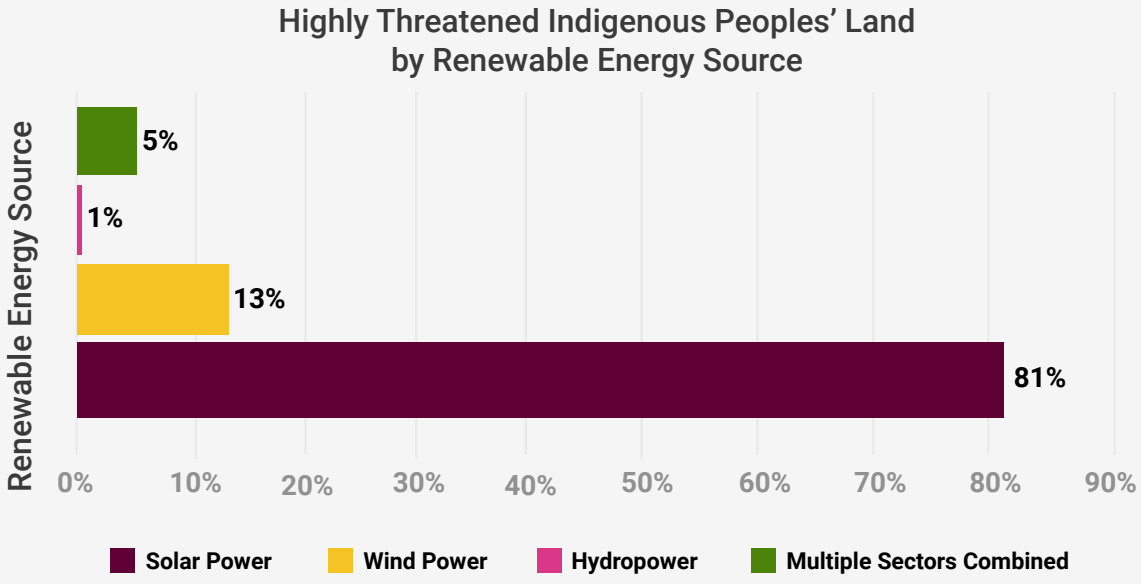
Historically, land grabbing was a central tactic of colonial control. Colonial authorities seized land, displaced communities and imposed legal systems that invalidated traditional forms of land governance. These systems marginalized women, who today make up a large share of the 2.5 billion people dependent on community land systems,[95] and laid the foundations for modern legal regimes that still fail to recognize collective and customary tenure. While today's context differs, many renewable energy projects risk replicating familiar patterns of exclusion – where territories and land are acquired without free, prior and informed consent or meaningful community consent, benefits are disproportionately captured by elites, and affected populations are often excluded from decisions that shape their lives and livelihoods.

One stark example is the expansion of bioenergy production, which has become a major driver of land dispossession under the banner of renewable energy. The large-scale cultivation of crops for fuel – such as palm oil, sugarcane and soy – has displaced smallholder farmers and Indigenous communities across Africa, Asia and Latin America, intensifying food insecurity and undermining customary land systems.[96] In many cases, land has been appropriated for monoculture plantations without meaningful consultation, often backed by state incentives or international finance.[97] Despite mounting evidence that many biofuels increase emissions compared to fossil fuels, when indirect land use change is considered, their production continues to be classified as a climate solution. This framing justifies the diversion of fertile land from food to fuel. For example, while the production of crops for biofuel consumption in Europe requires 5.3 million hectares of land, the same amount of energy could be produced by solar power using only 2.5% of that area. This clean energy could replace biofuels through the

establishment of additional transmission infrastructure to connect to the grid and by substituting internal combustion engines with electric vehicles.[98] The rest of the land could have been set aside as a carbon sink or returned to community use. Instead, bioenergy expansion is reinforcing extractive land use patterns rooted in colonial histories – where rural and Indigenous communities are made to bear the costs of transitions designed elsewhere.

These dynamics are not confined to any one region or actor. They occur in projects led by domestic and foreign developers alike, and in initiatives serving both export and domestic markets. What unites them is a concentration of power and a failure to uphold the rights of Indigenous Peoples and communities. Across multiple continents, climate mitigation projects are unfolding in ways that marginalize local communities. Many of these projects – ranging from wind and solar farms to bioenergy, green hydrogen and carbon markets – are being developed without free, prior and informed consent, and particularly on land held under informal or collective systems.[99] The projects often ignore diverse land tenure systems, provide inadequate consultation and offer unfair benefit-sharing. As a result, they contribute to growing conflict, displacement and rights violations.

This is alarming given Indigenous Peoples' vital role in safeguarding the planet – they manage 40% of all protected land for conservation and 80% of that protected due to its terrestrial biodiversity.[100] Yet if the Global North's net-zero plans rely on extractive industrial development activities, including land-hungry 'green' solutions, as much as 22.7 million km² of Indigenous-recognized lands and hosted ecosystems could be disrupted. That is roughly twice the size of the former French colonial empire at its peak.[101] Without stronger recognition of land rights, the energy transition will become another chapter in the long history of dispossession and enable existing inequalities rooted in colonial legacies to continue.



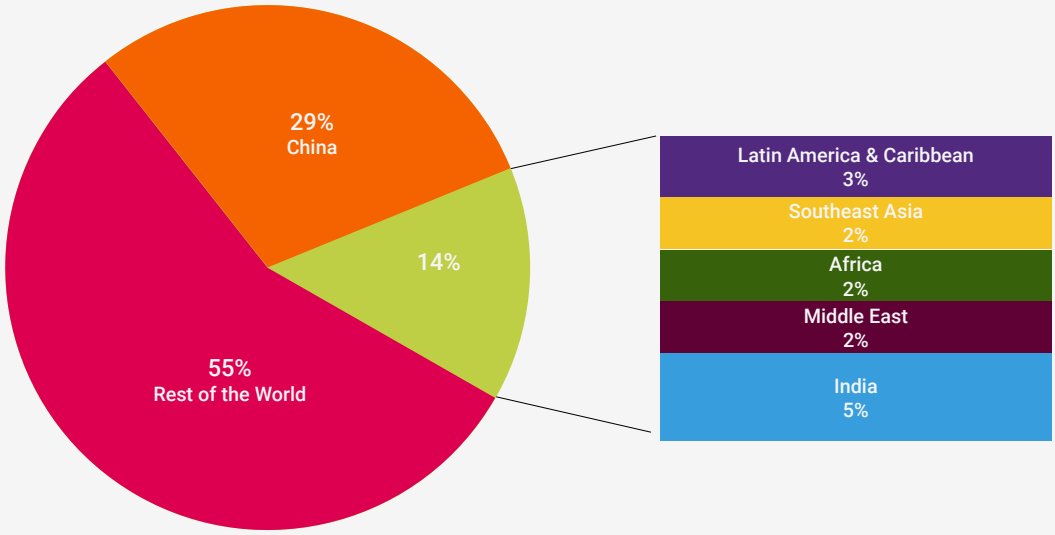
Own elaboration from external data source.[102]

Green inequality: social conflict and the global divide in renewable energy

The global expansion of renewable energy is advancing, but it faces significant challenges – both in the unequal concentration of capacity and benefits in high-income countries, and at the local level, where issues such as land rights, environmental harm, private ownership and limited community participation often lead to social conflict.

Although clean energy transitions have been framed as an opportunity to rectify global inequities – particularly under the principle of climate justice, where those least responsible for the crisis are prioritized – this vision remains largely unmet. In 2024, high-income countries accounted for roughly 50% of global clean energy investment and China for 29%, while other regions in the Global South accounted for much smaller proportions – Latin America received 3%, and South-East Asia, the Middle East and Africa received just 2% each – despite sub-Sharan Africa being home to 85% of all the people in the world without electricity.[103] This stark disparity risks entrenching the very inequalities that the energy transition is meant to address.

Clean Energy Investment Focus in Global South



Own elaboration from external data source.[104]

Locally, the rollout of renewables is also reproducing inequality. Large-scale projects often prioritize supplying electricity to major cities or industrial hubs, rather than expanding access in underserved communities.[105] One opportunity that renewables presents is that their deployment can be decentralized, as they do not rely as heavily on large-scale production to be cost-efficient, unlike fossil fuels.[106] However, some current transition approaches replicate past centralized models, overlooking the potential to combine large-scale generation with community-led solutions that democratize energy.[107] In many cases, poor practices around community engagement and participation, along with the overlooking of environmental safeguards, are being repeated, creating social conflict and resistance to the energy transition.

This dynamic is particularly visible in Brazil's Pernambuco state, where over 5,000 hectares of land – often held under informal or customary tenure – have been appropriated for wind farms.[108] Many affected communities are of Indigenous descent, with deep cultural ties to the Caatinga biome. Residents report a lack of free, prior and informed consent, revealing how land governance systems that fail to recognize collective rights leave communities vulnerable to dispossession.[109] On top of this, communities were often tricked into signing unfair 40-year deals to relinquish land, with some receiving minor benefits and others none – fuelling internal conflict. After the windmills were installed, health issues, including mental distress, have arisen due to noise, while vibrations have damaged water tanks and homes, threatening food security. Promised jobs never materialized, as construction roles were filled by outsiders rather than local residents.

One study found that wind and solar parks now cover more than 2,250km² of land in Brazil. Although Brazilian entities officially own 89% of wind parks, 68% of these organizations are subsidiaries of international companies – mainly from Italy and France – giving foreign investors substantial control, with international stakeholders holding 78% of wind assets and 96% of solar assets.[110] Much of this infrastructure is built on private land, but concerns are growing over land acquisition: 28% of wind parks rely solely on environmental registries without formal property titles and 7% are on public common lands. Critics argue that the renewable energy boom is driving land privatization that, without clear tenure rights, may dispossess traditional and rural communities.

North Africa's renewable energy transition also highlights persistent colonial dynamics, marked by social conflict and land privatization for export-oriented projects. Large-scale solar and wind projects are expanding rapidly, often on agricultural or communal lands, and without proper consent from local communities, such as agropastoralists and small-scale farmers, who already face displacement due to the impacts of climate change. For example, in Tunisia, laws enacted in 2015 and 2019 promote the use of agricultural land for renewable energy despite acute food insecurity, while projects such as TuNur's proposed 4.5GW solar plant aim to export electricity to Europe via submarine cables rather than meeting domestic energy needs, illustrating the erosion of energy sovereignty.[111] Similarly, a planned 3,800km underwater cable project linking southern Morocco to the UK continues the pattern of resource extraction for Global North consumption, re-enacting land grabs and failing to prioritize the energy access of local communities.[112]

Instead of supporting local communities, this kind of energy transition is deepening inequalities, privatizing commons and fuelling social conflict. While renewable energy offers vital climate and other co-benefits, such cases underscore the need for stronger protections of land rights, greater transparency in ownership and investment structures, and participatory models that ensure that affected communities are meaningfully included in decision-making and benefit-sharing. If renewable energy is to support a just transition, it must do so in ways that uplift communities, respect diverse land

tenure and governance systems and ensure that climate action does not come at the cost of human rights.

Green exports and inequality imports: hydrogen in Namibia

Similar dynamics are unfolding in Namibia, now positioned as a key player in the global green hydrogen race. The EU, and in particular Germany and the Netherlands, have rushed to secure hydrogen as a 'clean' fuel to meet their decarbonization goals through a memorandum of understanding. But the scale and speed of this transition come at a cost.[113] Projects such as the Hyphen development in Tsau Khaeb National Park require vast tracts of land, water and energy in a country already facing the acute effects of the climate crisis, where scarce resources are under increasing pressure from commodification. The project's immense footprint risks displacing communities that depend on natural resources for their survival.[114] Infrastructure such as massive solar parks, desalination plants and a deepwater port threatens to strain fragile ecosystems

and disrupt the traditional livelihoods of local communities.

Research shows that Namibia plans to export green hydrogen equivalent to around 6.4TWh of usable energy annually to Europe by 2030. Yet, that same US$10bn investment could, in theory, provide clean electricity to Namibia's entire population – and still power more than 1.3 million people in each of its five neighbouring countries.[115] Export-oriented energy projects may appear attractive because they promise near-term revenue streams, especially in contexts where public budgets are constrained. But this is not simply a question of Namibia making the wrong choice: in the absence of international public finance or structural reforms, countries like Namibia are left with few viable alternatives. As a result, they risk being locked into new forms of extraction while long-term development needs remain unmet. The result is a development model that prioritizes short-term returns to external investors, while leaving long-term domestic needs, like universal energy access, underfunded and unmet. This is a country where nearly half the population – 45% – still lacks access to electricity, and where deep inequalities persist in access to other essential services such as clean water.[116]

These pressures have raised concerns about a new wave of land appropriation, justified in the name of decarbonization but with minimal guarantees that affected communities will share in the promised development benefits. Such projects reproduce colonial forms of structural violence when they override land rights, displace communities or marginalize local voices in the name of green development.[117]

The inequality of producing vast amounts of renewable energy primarily for export – adding capacity to populations that already have abundant energy instead of improving domestic access – highlights a critical injustice. Recognizing this is essential to ensuring that the energy transition does not replicate past injustices.

Unequal financing, debt and dependency-based development

As the energy transition unfolds, a clear pattern is emerging – whether through the extraction of transition minerals, large-scale land acquisition or the expansion of carbon markets, too many projects continue to prioritize the demands of global markets over the rights and needs of local communities. This pattern extends beyond material resources: it is equally embedded in how the transition is financed. The financial architecture underpinning many energy investments in the Global South is shaped by logics of extraction and control that enable the continuous outflow of value through debt servicing, interest and rich investor returns, while curtailing Global South countries' autonomy over their own development trajectories. These structures also routinely sideline the knowledge, priorities, access to finance and leadership of women and gender-diverse communities, despite their central role in sustaining local economies and advancing community-level resilience.[118]

These power imbalances are no accident. As Daniela Gabor and others have argued, the global financial system has been restructured to enable what she terms the 'Wall Street Consensus' – a development paradigm built on using public money and guarantees to lessen the risks for private capital rather than delivering public investment.[119] This

consensus prioritizes investor protections, bankable pipelines and risk-adjusted returns, often in ways that subordinate public interest to private profitability. These risk mitigation measures are justified by the assumption they will encourage additional private investment, but they lack any meaningful reckoning with the histories of dispossession and inequality that continue to shape whose risks matter, and whose development is funded. Moreover, while public guarantees and blended finance can play a role in certain contexts, evidence shows they have consistently fallen short of delivering the promised effect in mobilizing private capital on a large scale.[120]

Just energy transition partnerships (JET-Ps) exemplify the limits of this model. Announced at COP26, the first JET-P pledged US$8.5bn from the EU, UK, USA, France and Germany to support South Africa's shift away from coal.[121] While the JET-P model is intended to be country-led – a vital principle for a just transition – its success ultimately hinges on the scale, quality and terms of the finance provided. Yet less than 4% of this is in grants, with the vast majority in the form of loans and guarantees, adding to South Africa's debt burden.[122] Senegal's JET-P, launched in 2023, followed a similar pattern: dominated by loans, it raises serious concerns about debt sustainability and the ability to fund the 'just' elements of the transition, like social protection or participatory planning, within a model geared toward investor returns.[123] The same is true for Indonesia's JET-P, where grants make up just 1.4% of the pledged finance, raising concerns that the package will add to the country's future debt burden rather than hopes that it will accelerate the transition.[124] These examples reveal how the JET-P model, while rhetorically grounded in justice, risks reproducing extractive financing patterns by prioritizing debt-heavy instruments that serve creditor interests over the structural public investments needed for a truly transformative and equitable transition.[125]

Debt, tax and climate justice

JET-Ps are just a small example of the structural injustices embedded in global climate and development finance. While private finance can play a role in expanding the transition, public investment is essential for delivering universal energy access, supporting social protection for workers, and ensuring public participation and gender-responsive public services. Yet most low- and middle-income countries face severe constraints on public spending due to unsustainable debt burdens and chronic revenue loss.

More than half of the world's poorest countries are currently in or at high risk of debt distress. Climate finance continues to exacerbate the problem: in 2022, nearly 70% of international public climate finance reported by high-income countries was delivered as loans rather than grants.[126] This means that many countries that are among the most vulnerable to the impacts of climate change are being pushed deeper into debt to respond to a crisis they did not cause. Many Global South nations are forced to spend five times more on debt repayments than on climate action.[127]

To put the imbalance into perspective, so-called developing countries owe

US$11.7 trillion in external debt – an amount that is more than 30 times the estimated additional investment needed to achieve universal access to clean energy and cooking by 2030.[128] In 2024 alone, US$400bn was paid in debt servicing – enough to provide clean electricity and clean cooking solutions for the millions of people still without access.[129]

Compounding these pressures is a broken international tax system. Each year, multinational corporations – including many in the energy and extractive sectors – shift an estimated US$1.42 trillion in profits to tax havens, resulting in a global loss of around US$348bn in public revenue.[130] While high-income countries lose more tax revenue in absolute terms, lower-income countries suffer far greater losses relative to the size of their economies, undermining already limited budgets for health, education and social protection.[131] In every context, it is women and marginalized groups who pay the highest price for underfunded public services. These systemic leakages are not accidents – they are the result of global financial rules designed to prioritize investor mobility and profit extraction over fiscal sovereignty and public good. As the Tax Justice Network recently showed, the challenge in mobilizing climate finance is not scarcity: a modest wealth tax and action on corporate tax abuse could more than meet most countries' climate finance needs.[132]

These entrenched patterns of debt and tax injustice are being institutionalized through formal mechanisms and enforced through powerful financial institutions. But at the same time, there is a growing movement to flip the narrative – questioning not only what debts are owed by the Global South, but also what is owed to it.[133] While sovereign debt repayment is rigidly enforced as countries seek International Monetary Fund (IMF) loan programmes accompanied by conditionalities often imposing austerity, as well as credit downgrades, the vastly larger climate debt owed by rich countries remains unacknowledged, unmeasured in official finance, and entirely unenforced.[134]

Recent scholarship has brought new rigour to the case for climate debt. High-income countries have accrued at least US$107 trillion in climate debt to low- and lower-middle-income countries – equivalent to the value of atmospheric appropriation from emitting beyond their fair share of global carbon.[135]

The disparity is stark. The external debts of low- and lower-middle-income countries are aggressively enforced, often at the cost of public services and social spending, while the climate debts of high-income countries are politically neglected and financially invisible. This double standard has direct implications for justice in the energy transition.

Indebted governments are forced to prioritize debt repayments in foreign currencies over investments in universal energy access, climate resilience or social protection, while the climate finance intended to support justice and redistribution remains scarce and difficult to access. This locks many governments into carbon-intensive export strategies – extracting fossil fuels, expanding mining and deforesting land to earn hard currency – exacerbating both ecological breakdown and social inequality.[136] Women and girls are disproportionately affected, as austerity measures erode public services and

increase unequal care workload.

Unless structural reforms are made to cancel debts, curb tax abuse and recognize the scale of climate debts owed to the Global South, the promise of a just transition will remain hollow. Climate justice requires financial justice. Without it, the world's most climate-vulnerable countries will be expected to fuel global decarbonization while being denied the fiscal sovereignty to decarbonize on their own terms.

Shrinking aid, colonial roots and the need for reparative finance

The absence of justice-based finance – in both JET-Ps and the wider landscape of climate finance – is being compounded by falling aid budgets. Though deeply inadequate, official development assistance (ODA) remains an essential – though increasingly fragile – source of external finance for many countries in the Global South.[137] Yet aid budgets are shrinking. One of the first acts of the US administration under Donald Trump was to shut down the US Agency for International Development, a decision which has had a huge impact on climate finance.[138] The UK's overseas aid budget was cut from 0.7% to 0.5% of gross national income in 2021 and will be cut further to 0.3% by 2027.[139] The Group of Seven (G7) countries, which together account for around three-quarters of all ODA, are set to slash their aid spending by 28% for 2026 compared to 2024 levels.[140] These reductions are happening even as the need for public, grant-based climate finance becomes more urgent.

While the aid system has delivered material benefits, it is important to recognize its colonial origins. Aid has too often been used to maintain postcolonial spheres of influence, open new markets and sustain political and economic dependencies, rather than support autonomous development. Moreover, aid flows have been vastly overshadowed by the net transfer of wealth from the Global South to North through debt repayments, illicit financial flows and profit shifting.[141]

Yet acknowledging these legacies must not justify the current trend of aid withdrawal. While the aid system needs fundamental reform – from a dependency-based model to one rooted in reparation and justice – this must be an intentional, managed transition. Abrupt cuts risk undermining progress on energy access and delaying a just energy transition, particularly in contexts where external finance remains essential to reach underserved communities and invest in social infrastructure. Until broader systemic shifts – including on debt and tax justice – are realized and lower-income countries enabled more sovereignty over their domestic resources, ODA remains a vital, if insufficient, lifeline for countries navigating the dual challenge of development and decarbonization. A reimagined aid model must also prioritize gender justice, ensuring resources flow to women-led solutions and community-based transitions.

Racial capitalism and the perception premium

These imbalances in aid and energy financing cannot be fully understood without confronting the deeper racialized logics that continue to shape global finance. In recent years, critical political economists have illuminated how the debt market operates through a lens of 'racial capitalism'[142]: the idea that capitalism, in its link with colonialism, has always depended on and been shaped by racial hierarchies.[143] While the phrase has its origins in the Black radical tradition, its relevance to the financing of the energy transition is increasingly clear.

This is particularly visible in debt markets, where countries across the Global South face significantly higher borrowing costs than their wealthier counterparts. It is argued that objective financial risk cannot fully explain this; rather, it is shaped by racialized perceptions embedded in credit rating methodologies, insurance systems and risk analytics. These perceptions are shaped by persistent negative stereotypes, often rooted in a 'perception premium' of instability, disorder and poor governance.[144] These biases were starkly evident during the COVID-19 pandemic, when Global South countries received a greater number of and more severe credit rating downgrades than their Global North counterparts, despite the latter experiencing larger increases in debt levels.[145] According to one report, such narratives and their portrayals in international media cost African countries up to £3.2bn annually in inflated interest payments on sovereign debt.[146]

These distorted risk perceptions do more than misprice credit – they deepen energy inequality. Global South countries face interest rates of 9–13.5% for clean energy projects, compared to 3–6% in the Global North, directly slowing electrification and decarbonization in places that need it most. Today, powering 100,000 people with clean energy costs US$95m in advanced economies such as the UK, but the situation is starkly different in its former colonies – in emerging economies such as India it costs around US$139m (45% higher) and in African countries such as Nigeria it costs around US$188m (97% higher), respectively, due to higher financing costs and perceived risks imposed by the Global North.[147]

The result is a form of financial extraction that penalizes the very countries least responsible for the climate crisis. Unless these inequalities – embedded in debt, aid, investor expectations and capital flows – are dismantled, the energy transition will only continue to deepen global inequality. These financial injustices are not abstract – they shape whose homes get powered, whose industries thrive, and whose transitions remain stalled. In a world of rising temperatures and widening inequality, access to finance cannot depend on countries' creditworthiness or investor confidence.

Extraction without end: the Amazonia and the contradiction of sacrifice zones

The Amazon region is a vital source of biodiversity and biocultural wealth. It is home to more than 2.2 million Indigenous Peoples from over 400 distinct Indigenous communities – including 85 identified but uncontacted groups – as well as Afro-descendants,

Quilombola, peasants and other local communities.[148] These communities preserve, in their collective memory, the knowledge and practices that sustain this vast and intricate ecosystem.

The region spans nine countries and an area roughly the size of the continental USA. It holds about 20% of the world's freshwater, shaped by the Amazon River and its 1,100 tributaries, as well as the 'flying rivers' of humidity via evapotranspiration from its dense tree cover.[149] It harbours the highest concentration of botanical species on earth, playing a vital role in absorbing greenhouse gas emissions and regulating global climate.

However, the Amazon has become a sacrifice zone, as competing interests – from farmers, loggers, miners and oil companies – prey on its biodiversity and communities. The rubber boom and logging of precious woods in the 19th century, followed by oil extraction in the 20th century, have evolved into a new 21st-century rush: hydroelectric megaprojects and the mining of transition minerals.[150] These are accompanied by mounting pressure on ancestral Indigenous territories and fragile ecosystems. The resources and traditional knowledge extracted from the Amazon have largely served to fuel the Global North's overconsumption and to sustain a development model rooted in energy waste.

Despite being one of the most critical ecosystems for global climate stability, the Amazon is under severe threat from external demand. This pressure is pushing the region toward a point of no return – disrupting the water cycle and leading to forest loss through a process of savannisation. This highlights a deep contradiction: extracting resources from such vital ecosystems in the name of the energy transition undermines the very goal of combating the climate crisis. It also points to an essential fact – some regions, like the Amazon, contribute far more to climate mitigation when preserved and stewarded by Indigenous and local communities. This is a call that these communities have made for generations, as they continue to defend the forest and uphold its ecological and cultural integrity.

Overcoming the view of this territory as a source of plunder and extractivism means taking a stand for social and cultural justice. It involves moving beyond colonialist ideas. The current discussion around energy transition – from coal to so-called clean energy – does not represent a true paradigm shift as long as it fails to incorporate a critical reflection on the relationship with the Amazonia and does not provide space for Indigenous Peoples, Afro-descendants, Quilombolas, peasants and other collectives in decision-making processes.[151] A just energy transition must break Global North–South power imbalances and place local resistance at the centre. In the Amazon, a just transition entails an urgent call to phase out oil extraction and end deforestation, to first ensure environmental remediation and to provide reparations for affected ecosystems and communities.

In this context, it is imperative to support efforts that seek to listen to and integrate the voices of the ancestral occupants of the Amazon and for countries to implement fair and actionable measures – such as the recent call by more than 50 Indigenous and civil society organizations to declare the Amazon free of fossil fuels.[152]

Fostering an intercultural relationship as a foundational and guiding principle, alongside intersectionality, can contribute to a more fair and transformative transition. Thus, interweaving social-environmental, redistributive, racial, climate, gender, intercultural and economic justice is a good starting point. To chart a path forward, we must ensure

that Indigenous and local communities' representatives are given a voice in climate negotiations, acknowledging the key opportunity at COP30 in Belém, but extending beyond it. Territories are not only environmental sanctuaries but also political spaces of resistance for energy justice.

Outline of the history of resource extraction in the Amazon[153]

16th -18th century
Spanish and Portuguese colonization

First extractions of timber and gold; enslavement of Indigenous Peoples; reduction of Indigenous populations; loss of traditional knowledge and practices.

1850 -1910
Rubber / latex boom

Enslavement of Indigenous Peoples; extensive deforestation.

1920 - present
Crude oil extraction

Pollution of rivers from oil spills; health issues; displacement of Indigenous Peoples and local communities; irreversible biodiversity loss.

1970 - 1990
Rise of developmentalism

Large-scale agriculture; road construction; massive deforestation; territorial conflicts with Indigenous Peoples, Afro-descendants, Quilombola, peasants and local communities.

1980 - present
Legal and illegal mining (gold, coltan, etc.)

Threats to territorial rights defenders (especially Indigenous); ecosystem destruction; human trafficking; gender-based and armed violence.

2000 - present
Agribusiness and deforestation

Expansion of soy and palm oil monocultures, and cattle ranching; severe forest cover loss.

2010 - present
Hydroelectric projects and megaprojects

Forced displacement; violation of free, prior and informed consent; disruption of watersheds; wildlife loss.

2020 - present
Illegal economies and violence against defenders

Drug trafficking, illegal land grabbing, mining and logging; intense violence and killing of Indigenous and grassroots territorial defenders.

DECOLONIZING THE ENERGY FUTURE: A FAIR, FAST, FUNDED AND FEMINIST TRANSITION FOR ALL

This section explores what it truly means to place justice at the heart of the energy transition. It draws on real-world examples that show alternatives are not only possible but already unfolding, led by communities, workers and governments who have long been imagining and building their own energy futures. Across the Global South, Indigenous Peoples, Black and Afro-descendant communities and other racialized groups, women, workers, peasants and local cooperatives are defending land and life, resisting extraction and creating space for more just and regenerative systems. Many have been doing so for over 500 years, continuing a long legacy of resistance to colonialism. Workers and their unions have also been at the forefront of this struggle, playing a foundational role in shaping the concept of a just transition – grounded in decent work, labour rights, occupational health and safety, social protection and democratic dialogue. Some governments, too, are reclaiming sovereignty over their resources and reasserting public control over energy systems – placing people and the planet at the heart of decision-making.

These efforts offer critical lessons and hope. But for the transition to truly deliver justice, change must happen not only locally and nationally, but also globally and systemically – including rethinking how we define value and wellbeing and ensuring a radical reduction in inequality. Tackling inequality is not only a moral imperative; it is one of the most effective climate mitigation strategies we have. It can unlock public resources for social protections and energy access, reduce the excessive emissions of the wealthiest, and shift the benefits of the transition towards everyone, rather than an elite few.[154] The choice before us is stark: deepen extractive, growth-oriented systems where extreme wealth, inequality and emissions persist, or build energy and economic systems rooted in equality, care, justice and collective prosperity.

What we are facing is not a moment for gradual reform, but a rupture: a fundamental reimagining of how we produce, consume and govern energy, and by extension, how we organize our societies. This challenge spans multiple layers: from the local, where well-designed energy projects can deliver tangible benefits for communities; to the national, where policy choices can shape the direction and fairness of energy transitions; to the international, where cooperation, solidarity and accountability are essential to level the playing field

and generate trust; and to the political-economic level, which decides whether energy is treated first and foremost as a public good and a human right – fundamental to dignity, care and human flourishing – or a commodity for profit and unsustainable growth.These layers are deeply interconnected, each shaping and reinforcing the others.

Yet even the most promising local and national efforts are constrained by a global economic architecture that preserves inequality and limits democratic control. A common thread running through the experiences of communities and countries is the structural barriers they face: high debt burdens, profit shifting and expansive investor protections that erode the fiscal and policy space needed to support inclusive, community-led transitions. These dynamics skew transitions toward corporate-led, export-oriented models and marginalize community and public alternatives.

Still, a just transition is not defined by a single model of ownership, governance or technology. What matters most is whether energy systems are grounded in the rights, needs and leadership of communities, to serve life and not profit. This requires a combination of elements: strong legal safeguards, meaningful participation, fair benefit sharing and – in many contexts – community or collective ownership. These principles apply across different models, whether public, private or community led. No model is immune to capture or exclusion, and even decentralized or local systems can reproduce power imbalances. What unites truly just transitions is the redistribution of power – ensuring that those most affected by energy decisions are not only protected from harm but also actively shaping the path forward. Communities, not corporations, should be at the heart of the energy future.

In this challenging political and economic landscape, the examples below are just a small sample of what is possible. This is also a call to action: to envisage what could be achieved if policy frameworks, financing and political will aligned to support transformative action and serve people and planet over profit.

Democratizing energy and centring community rights

Colonial energy systems have long been defined by centralized control and profit-driven decision-making. Choices about energy access, infrastructure and ownership have typically been made far from the communities most affected, reinforcing patterns of exclusion, disempowerment and inequality. Energy planning has been treated as a technocratic exercise, largely disconnected from justice, community wellbeing and the cultural and ecological relationships people hold with their territories.

This approach has been reinforced by international financial institutions such as the IMF and World Bank, which have promoted market-led, centralized energy models aligned with Global North interests, effectively exporting a Western-centric energy model.[155] Despite global gains in energy access, the

growth rate remains off track to meet Sustainable Development Goal (SDG) 7 and energy access is stagnating in regions that need it most. In sub-Saharan Africa, progress on electricity access is only just keeping pace with population growth, leaving the access gap stubbornly high.[156] Meanwhile, 2.1 billion people globally are without access to clean cooking, and the pace of poverty reduction is slowing.[157]

The consequences of this model are stark. Many Global South countries now face rising debt and limited fiscal space to invest in inclusive alternatives. Communities often face unaffordable energy costs and exclusion from planning processes. What was once framed as a development pathway is now revealing its limits – deepening inequality, undermining sovereignty and obstructing more just and resilient energy futures.

The shift to renewable energy presents a critical, though far from automatic, opportunity to do things differently. Unlike fossil-fuel infrastructure, many renewable technologies, such as solar and wind, are well-suited to decentralized generation and transmission.[158] This opens space to move away from extractive, export-oriented approaches towards models grounded in justice, care and self-determination. In many contexts, decentralized systems that generate energy close to where it is used can enhance local control, participation and resilience. But decentralization is not the only pathway. What matters most is designing energy systems in ways that guarantee community rights, enable democratic participation and prioritize the needs of those most marginalized.[159]

There is a spectrum of models through which communities can participate in or control energy systems– ranging from full community ownership to hybrid governance structures that still put community rights, voices and benefits first. These models can vary by legal framework, funding mechanism, technology and scale, but what distinguishes them is where power lies: in the hands of the community, or at least meaningfully shared with them.

Across the world, diverse community-led energy initiatives are advancing this shift. Their variety is a reminder that a just and decolonized transition must be plural – rooted in different worldviews, knowledge systems and relationships with nature. There is no single blueprint. What matters is building place-based pathways that uphold energy as a collective right and a foundation for wellbeing.

From rural cooperatives to urban solar collectives, these initiatives embed energy governance in local contexts and community priorities. In Colombia, inspired by grassroots and organic 'energy communities' that civil society has built over previous decades, the government aims to establish 20,000 of these collectives by 2026. Groups of people or institutions come together to generate, manage and sometimes distribute energy, typically from renewable sources.[160] These include state schools and hospitals and they aim to empower historically marginalized groups – Indigenous Peoples, Afro-descendants, peasants and victims of conflict – as energy producers, thus acknowledging historical and structural inequalities while recognizing

ethnic communities' jurisdiction and land governance rights, allowing them to generate and manage energy under their own norms.[161] This emerging democratization of the energy model has been questioned by communities over issues related to land tenure and private sector involvement,[162] but it has also been seen as a positive starting point for a broader debate on the distribution of resources.

In Senegal, decentralized renewable energy is transforming rural economies, especially in the north.[163] Programmes like PAER and Progrès Lait use off-grid solar to power agriculture, reduce waste and support women's and youth-led businesses. These systems bypass exclusionary infrastructure, enabling communities to control energy use and production. They foster jobs, food security and education, while shifting economic and political power locally. Grounded in community needs, they offer a more inclusive, resilient alternative to top-down energy governance.[164]

Urban areas also hold potential for transformative decentralization. In Brazilian favelas such as Complexo do Alemão and Paraisópolis, residents face energy injustices through inflated tariffs, frequent outages and discriminatory infrastructure.[165] Grassroots solar cooperatives are reclaiming energy autonomy, pushing back against systemic racism and exclusion. Whether rural or urban, these decentralized systems operate independently from national grids, rooting energy in community control. They foster economic inclusion, resilience and energy sovereignty, especially when supported by public investment and enabling policy.

In all these cases, the core shift is not just technical, but also political. Whether through decentralized systems or inclusive public planning, the goal is to shift control away from monopolies and toward the people and places most affected. When supported by public investment and enabling policy, energy systems can be transformed into tools for justice, equity and repair.

Rethinking ownership and governance on a large scale

A truly just transition requires not only combining centralized and decentralized systems but also the large-scale transformation of ownership and governance. Too often, large-scale infrastructure projects replicate extractive patterns: prioritizing profit over people, concentrating control in the hands of corporate or state elites, and sidelining communities whose lands and labour sustain these systems. But alternative models are not only possible – they already exist.

In Aotearoa New Zealand, the Nga Awa Purua Geothermal Plant reimagines what large-scale renewable energy can look like when built on Indigenous leadership, not colonial logic – placing Māori communities at the centre not as stakeholders, but as co-owners, initiators and custodians. As one of the country's largest renewable energy projects, supplying around 3% of the

nation's electricity, it demonstrates that Indigenous leadership in large-scale infrastructure is not only viable but transformative.

What makes this project distinctly decolonial is its governance model. It was led by Māori landowners, represented by the Tauhara North No. 2 Trust, who secured a 35% equity stake using financing mechanisms that upheld Māori sovereignty by refusing to use ancestral land as collateral.[166] This marked a decisive break from colonial legacies of dispossession, showing how Indigenous economic agency can reshape financial practice. Crucially, the partnership embeds Māori values such as kaitiakitanga (guardianship), shifting the focus from profit to community and environmental wellbeing. Revenues are reinvested into housing, education, healthcare and elder care – centring repair, redistribution, long-term collective flourishing and identity affirmation.[167]

A similarly instructive example is Kenya's Kipeto Wind Farm, the country's second-largest wind power project. Kipeto comprises 60 turbines generating 100MW – enough to power around 250,000 households.[168] Located on land owned by Maasai communities through group ranches, the project used a lease-based model that preserved communal land rights and enabled direct compensation to local residents. This helped avoid the displacement common in large-scale infrastructure, affirming the importance of land tenure and community agency.[169] The project delivered over 800 jobs during construction and invested in infrastructure, education and healthcare. While communities have raised concerns about job quality and limited improvements in energy access, Kipeto remains notable for its efforts to redistribute benefits more equitably.[170]

Kipeto is a clear example of working within the existing system to deliver positive outcomes. But even in this relatively successful case, the model depends on scarce public funds being used to derisk investments for private actors, whose risk perceptions and return expectations are shaped by global hierarchies. What is needed is not only better projects within the existing system, with enhanced community safeguards, but structural change: making progress toward financial systems that prioritize equity and public purpose, rather than perpetuating unjust investment dynamics. The Kipeto case shows the importance and potential of good practice. At the same time, even relatively successful models can reinforce existing power imbalances, underscoring the urgency of building a more equitable system from the ground up.

Together, Nga Awa Purua and Kipeto challenge the myth that justice-based energy models are too small or impractical. They show that when communities are given real power – not just tokenistic consultation – large-scale renewables can uphold rights, foster equity and resist extraction. These projects offer important insights into how to balance local ownership with the financial complexity of utility-scale development.

Decentralized systems show what is possible when community and development needs are prioritiszed, and bring powerful co-benefits, but will not be appropriate or sufficient in all contexts. Grid infrastructure – and

its expansion – remains essential for meeting urban demand, supporting industry and enabling national and regional integration. The challenge is to ensure that all energy systems – centralized and decentralized – are designed and governed in ways that prioritize justice and the public good, rather than extraction and private profit. This may well require states to assume greater ownership of energy and transmission infrastructure to prevent private monopolistic control and ensure equitable, reliable access for all.

Putting gender at the heart of the energy transition

Gender and energy are deeply connected, yet too often treated separately. Energy is critical in the daily lives of women,[171] for their household chores, such as cooking; for productive uses that enable them to contribute to household income; and for rural industry needs, such as milling grains. In the Global South, women play a vital role as energy producers

and as managers of energy security for the household.[172] Yet, relative to men, they have less access to productive assets such as land and technology, and to services such as financing and agricultural extension programmes.[173] Likewise, women from the Global South play an active role in the energy transition through their role as key decision-makers on household purchases, which can be leveraged to drive clean energy access and encourage the uptake of renewable sources of energy.[174] Hence, a just transition must not only deliver clean power, but also redistribute time, voice and opportunity – centring care, equity and the leadership of women and gender-diverse people.

In Pakistan, the Sarhad Rural Support Programme (SRSP) offers a powerful example of feminist energy in action. By installing more than 350 micro-hydro schemes in rural areas, SRSP has brought electricity to around one million people, many for the first time. But the impacts go far beyond electrification. Women's unpaid labour has decreased significantly, especially in fuel collection and household chores, freeing up time for education, rest and income-generating activities.[175] Home-based businesses, often led by women, have flourished. Though formal participation in governance varies, women's voices in energy maintenance and access advocacy are growing. At the heart of SRSP's success is a model of collective ownership and transparent governance, where energy systems are managed by communities, not corporations or central authorities. These projects embed clean energy within a broader ecosystem of care, social cohesion and local empowerment, offering a vision of energy transition that is both transformative and inclusive.[176]

In the Cordillera region of the Philippines, Indigenous communities – led in part by women – are advancing their own vision of energy sovereignty. In opposition to large hydropower and mining projects that threaten their lands and ways of life, they have developed community-run micro-hydro systems grounded in Indigenous values of stewardship, reciprocity and collective governance.[177] Initiatives like the Center for Development Programs in the Cordillera (CDPC) and Renewable Energy for Indigenous Women (REIWA) train women in technical skills, from electronics to troubleshooting, disrupting gender norms and reinforcing community-led governance.[178] These systems power sustainable livelihoods, operate under ancestral domain structures, and are directly linked to broader struggles against militarization, land grabbing and colonial resource extraction.[179]

These examples show that when energy systems are designed with gender justice at their core, they do more than provide electricity – they shift power. Global decarbonization efforts often replicate colonial patterns of extraction, centralized control and technocratic decision-making, as well as patriarchal structures of violence that exclude women, racialized groups and frontline communities. In contrast, feminist energy futures reimagine energy not as a commodity, but as a foundation for justice, care and collective wellbeing.

This vision calls for redistributing not just energy access, but also political and economic power. It is grounded in community knowledge, interdependence and reparative justice. Rather than imposing one-size-fits-all solutions, it embraces place-based transitions led by those most affected by climate injustice and energy poverty. Ultimately, this shift requires rethinking the purpose of our economies. The pursuit of endless gross domestic product (GDP) growth must give way to feminist and decolonial frameworks that prioritize wellbeing, sustainability and collective flourishing.[180]

The right to decide: energy sovereignty in a just transition

Key principles behind community-led energy – fair ownership and accountability – also apply at national and systemic levels. This is the foundation of energy sovereignty: a political and ecological vision that affirms the right of communities and nations to control how energy is generated, distributed and used, treating it not as a commodity, but as a common good essential to life.

Just as energy systems must prioritize communities at the local level, national efforts to reclaim sovereignty must also uphold the rights and participation of those most affected by extraction and energy injustice. Energy sovereignty challenges extractive, profit-led models by calling for participatory, justice-centred governance – whether through decentralized systems, public ownership or other inclusive approaches. Originating in movements across the Global South in the 1990s, the concept emerged in response to energy colonialism, expressed through the privatization of public services, corporate monopolies, and violent forms of resource extraction, whether from fossil fuels, large-scale renewables or transition minerals.[181]

At its core, energy sovereignty affirms the right to decide which energy sources are used, how much is produced, who produces it, and for whose benefit. It recognizes the harms imposed on frontline communities through extraction and generation, as well as the broader social and ecological costs borne by those excluded from energy decision-making. Yet sovereignty is not without complexity: tensions can arise between national control and Indigenous rights, and between state leadership and genuine democratic participation. Energy sovereignty must therefore be grounded not only in public ownership, but in inclusive, transparent and accountable governance – ensuring that control over energy systems reflects the needs, rights and priorities of communities.

In Latin America, countries are reclaiming sovereignty over the strategic resources that underpin the energy transition. Bolivia nationalized its lithium sector in 2008, placing extraction and processing under the state-owned Yacimientos de Litio Bolivianos company in a move to improve regional value addition, wealth redistribution and public control over natural resources. However, the transition remains incomplete until it addresses the fiscal and financial dependency on resource and land extraction and transforms the productive system away from land exploitation.[182] In 2023, Chile announced similar plans, initiating public–private partnerships in which the state would retain majority control. These policies aim to break from colonial extractivist models and ensure that ecosystems and local communities are protected.[183] However, such reforms remain vulnerable to elite capture and corporate pressure if not accompanied by meaningful community participation and robust social oversight.[184]

Mexico has also taken steps in this direction. In 2023, the government passed significant mining reforms to reassert state and community control over transition minerals. The new laws require public tenders that prioritize national interests and mandate free, prior and informed consent, environmental impact assessments, and benefit-sharing agreements with affected communities. Crucially, the reforms include strong environmental protections, banning mining in protected areas, prohibiting underwater extraction and mandating water recycling.[185] These provisions challenge the longstanding prioritization of foreign investment and export-led growth, signalling a shift toward resource governance that is guided by ecological integrity and community wellbeing.[186]

Yet the ability to assert sovereignty over energy and minerals is often constrained by global economic structures. Debt servicing obligations, investor–state dispute mechanisms in trade and investment treaties, and tax base erosion caused by multinational corporations all limit fiscal space and policy autonomy, especially in resource-rich but financially constrained countries. Without reforms to these international systems, the possibility for countries to assert their energy sovereignty risks being undermined by the very structures that perpetuate extractivism. As of 2023, Mexico ranked as the most frequently sued country globally under investment protection treaties, with 55 cases filed, many of them in the mining sector.[187]

Despite challenges, these efforts represent an alternative long envisaged by many resource-rich countries: one in which transition minerals and energy systems are not extracted for profit, with value captured overseas, but are democratic assets that can enable long-term sustainable development and a rebalancing of global justice. While these approaches are context-specific and politically contested, they lay important foundations for shifting control away from transnational capital and toward accountable, socially grounded institutions. Their success depends not only on state capacity, but also on active civil society engagement and international rules that respect domestic policy space.

Ultimately, energy sovereignty is not just about who owns infrastructure – it is about who defines the purpose of energy systems. Whether through public ownership, participatory governance or legal safeguards, it demands that energy transitions serve people and planet above profit and power. But to live up to this promise, energy sovereignty must also grapple with its internal tensions: between national development and local self-determination, and between public control and democratic inclusion. Only by centring justice, care and accountability at every level can energy sovereignty offer a truly transformative path forward.

Protecting workers' rights and ending exploitation in the energy transition

A truly just energy transition must also recognize the people who have powered fossil-fuel economies – often in difficult, dangerous and precarious conditions. The concept of a 'just transition' has its roots in the labour movement, first emerging in the 1970s when North American trade unions began linking environmental degradation with workers' health in polluting industries. By the 1990s, alliances between labour and environmental movements had strengthened, advancing the idea that climate action must go hand in hand with decent work, retraining and protections for affected workers.[188]

Unions in Spain, the UK and Australia played important roles in shaping national policies that foregrounded workers' rights within broader environmental reforms.[189] While early notions of a just transition focused primarily on reskilling fossil-fuel workers for green jobs, the concept has since evolved – now highlighting the need for just outcomes for all communities, including but not exclusively workers affected by the transition. The concept was then expanded by the International Labour Organization (ILO) in its 2015 just transition guidelines, and has since been widely adopted by governments, businesses and

civil society organizations of, including a just transition declaration at COP26.[190] COP30 in Belém do Pará is expected to be a pivotal moment, where governments may adopt an international mechanism to accelerate, consolidate and achieve a holistic just transition.

This evolution is vital. Historically, the energy sector has functioned as an extractive and exploitative industry, disproportionately harming frontline workers and communities – especially in coal, oil and gas. Still shaped by colonialism, it saw women lose power and profited colonial corporations, while women's contributions were concentrated in unpaid, underpaid and precarious work.[191] Long hours, hazardous working conditions and weak labour protections have been the norm. A genuine just transition cannot rely on clean technologies alone; it must be anchored in a rights-based approach that prioritizes safe working conditions, strong labour protections, union representation and fair wages across the entire energy value chain.

Importantly, clean energy development must avoid reproducing the same injustices of colonial exploitation. It is essential to ensure that jobs in sectors like renewable energy, as well as mining of transition minerals, are not informal or precarious, do not rely on abused migrant workers, and are not outsourced under poor labour standards. A just energy system must provide all guarantees and safeguards – grounded in decent work, workers' voices and democratic accountability.

South Africa's coal decommissioning efforts in Mpumalanga offer a window into both the promise and the challenges of operationalizing a just transition. The government's plan includes worker consultation, reskilling, early retirement, environmental rehabilitation and investments in green jobs. These justice elements were co-developed with trade unions and communities and are to be funded through a mix of Eskom's budget, international finance, loans and carbon taxes. Yet implementation remains difficult amid structural inequality, high unemployment and persistent energy poverty.[192]

Mpumalanga is deeply reliant on coal, with as many as 120,000 jobs tied to the industry across the country. While according to some modelling, renewable energy has the potential to create up to 79,000 new jobs nationally, it is not yet clear how many of those will benefit former coal workers or their communities.[193] Political will, structural reforms and equitable investment strategies will be crucial to ensure that the transition does not deepen existing divides. If the justice elements of the plan are fully funded and implemented, the region could offer a model for other coal-dependent areas – but the slow pace of implementation remains a concern.[194]

South Africa's experience underscores a broader truth: energy transitions must be designed not only to shift technologies, but to transform labour markets, reduce inequality and protect the social fabric of communities.[195] Yet too often, workers and their rights are sidelined in transition narratives. Trade unions have consistently called for a just transition that is grounded in core labour standards and social protections, including freedom of association, collective bargaining, occupational health and safety, decent work, living wages, social dialogue and skills development. These are not peripheral demands, but central pillars of the just transition vision developed by unions. Ensuring that clean energy jobs fulfil these rights is essential to delivering a transition that is truly just, equitable, socially inclusive and sustainable.

Transforming the global system: sufficiency, justice and systemic reform

From energy inequality to reparative justice

While questions of ownership and governance at the local and national levels are essential, a truly just transition must also confront how energy is distributed, consumed and embedded in global economic structures. This means reckoning with the deep inequalities that shape the current system, not only in who controls energy, but also in who benefits from its use, who bears its costs, and who is excluded from decision-making.

Today's global energy model is shaped by competition, overconsumption, exploitation and extractivism, a system that enables the highest-consuming countries, corporations and the super-rich to maintain their high-carbon lifestyles while outsourcing environmental and social harms. A transition that simply replaces every internal combustion engine with an electric vehicle in the Global North – without reducing demand or redistributing access – would have disastrous implications for communities on the frontlines of mining, extraction and climate impacts, while preventing communities in the Global North from realizing the health and other benefits of safe, accessible and affordable public transport systems.[196] Equally, a transition that replaces kerosene-fuelled air travel with biofuels[197] and offsetting that depend on land acquisition in the Global South, without reducing demand for private and other premium aviation, will widen climate inequality.

To be truly just, the transition must not only shift technologies but also transform the underlying logic of energy systems and how energy is consumed: from accumulation and the excess use of a few, to equity; from endless growth to sufficiency within the planet's boundaries, and from exploitation of people and natural resources to care. This requires reparative justice, including mechanisms to make rich polluters pay, redistribute resources and to prioritize the rights of those historically excluded from energy access and decision-making.

If energy were redistributed, the annual consumption of the top 10% global energy consumers could meet the basic energy needs of the entire Global South nine times over,[198] while the energy used by the wealthiest 1% in a year could meet the modern energy needs of everyone without electricity more than seven times.[199] This starkly highlights the climate inequality at the heart of the energy transition. This is not about simply diverting energy from one group to another, but transforming the systems and structural barriers that enable such extremes.

Confronting structural barriers: debt, trade and inequality

To enable just transitions, structural reform is essential. Global governance must shift from protecting corporate and elite interests to

upholding public and planetary wellbeing. Reforming or replacing ISDS mechanisms is critical to ensure that governments can regulate in the public interest without fear of corporate lawsuits. At the same time, grant-based, reparative climate finance – rather than loans that deepen debt – alongside debt cancellation, are urgently needed to expand fiscal space and allow countries to invest in inclusive, community-centred transitions without trade-offs. Technology transfer must also be dramatically accelerated, including through the removal of restrictive intellectual property regimes that currently allow a handful of countries and companies to capture most of the value from renewable technologies.

Crucially, greater economic equality is a precondition for climate justice and a just transition. As mounting evidence shows, it is possible to end poverty and tackle climate breakdown together, but doing so requires a radical reduction in inequality.[200] More equal societies and economies demand less growth to meet basic needs, require less energy to deliver wellbeing for every person, and reduce the disproportionate emissions of the richest. A just energy transition must therefore not only decarbonize systems but also reshape them to reduce poverty, redistribute power and deliver wellbeing within planetary boundaries.

Global institutions must be reformed to support this vision. A UN Framework Convention on Tax Cooperation offers a path toward more equitable and democratic financing of sustainable development, especially when contrasted with the economic models of the World Bank and IMF.[201] While imperfect, the UN system also remains more representative of the Global South. Democratizing global decision-making and ensuring that frontline communities and nations have meaningful power in setting the rules of the global economy is key to building a just and equal transformation. This must go hand in hand with taxing extreme wealth and corporate excess, including introducing permanent wealth taxes on billionaires, polluter profit taxes on fossil-fuel companies and excess profit taxes on other corporate giants that profit from crisis.[202]

Rebalancing energy demand and rethinking consumption

Redesigning the energy system means addressing these global asymmetries alongside domestic inequalities – such as elite capture, energy poverty and uneven infrastructure access. In this context, decentralization is not just about scale or technology – it is about rebalancing who benefits from energy systems and whose needs are prioritized.

Rather than treating the energy transition as a race in which only a few countries can 'win', we must reimagine it as a shared global project; one that provides sufficient, reliable and clean energy for all, without sacrificing ecosystems or frontline communities. A core principle is that energy should not be hoarded, withheld or used as a lever of geopolitical or corporate power.

There are reasons for cautious optimism. According to the International Renewable Energy Agency (IRENA), global renewable energy capacity has doubled over the past decade and is on track to surpass coal by 2030.

Crucially, 70% of the world's untapped renewable potential (solar and wind) lies in the Global South[203] – offering not only a historic opportunity to leapfrog into cleaner and more equitable energy futures but also highlighting the urgent need to level the playing field with the Global North by addressing structural inequalities in technology access, investment and decision-making power.

For example, the total solar energy reaching the earth's surface in just one hour could meet global energy demand for an entire year.[204] Africa alone accounts for roughly 40% of the total global solar potential.[205] Harnessing less than 1% of the annual solar energy from the Sahara Desert alone could power the entire Middle East and North Africa region with clean energy.[206] Wind energy offers similarly transformative potential. Global wind flows contain around 900TW of kinetic energy – more than 45 times the world's current total energy consumption[207]. Tapping into less than 1% of the world's usable wind energy could provide clean electricity to South-East Asia's 677 million residents.[208] The estimated cost, US$331bn, could have been raised globally in the first 10 months of 2024 through a fossil-fuel corporation profits tax.[209]

Yet this progress risks being undermined if high-consumption models remain the default, particularly those based on unsustainable resource use, land grabs and continued extraction in the Global South to sustain lifestyles in the Global North. A more balanced approach could be guided by the principle of energy sufficiency, supported by improvements in efficiency. In the Global North, where per capita energy use is often 10 times higher, sufficiency means more than marginal efficiency improvements. It means asking hard questions about how much energy is enough, and for whom. It means reducing unnecessary demand – particularly excess luxury consumption, such as private jets and superyachts – in line with planetary boundaries and recognizing that endless consumption is not compatible with a liveable future.

Another promising concept is the Modern Energy Minimum (MEM), which challenges the limited energy access that the Global South is often expected to accept under basic needs metrics. The MEM sets a benchmark of at least 1,000kWh per person per year – enough to meet basic needs and enable meaningful participation in economic and social life. Prioritizing this threshold in the Global South, where energy poverty remains widespread, is essential for upholding development rights and human dignity. It should be understood not as a cap or aspiration, but as a bare minimum. This concept is most effective when seen as complementary to efforts to reduce excessive energy consumption in the Global North, restricting unnecessary and luxury consumption. In short, we can provide energy for all, and ensure we stop climate breakdown, but only if we radically reduce inequality.

Resisting energy appropriation and challenging extractive flows

The global economy also relies on an unequal system of energy appropriation. The energy embedded in food, electronics and manufactured goods consumed in the Global North is largely extracted from and expended in the Global South,

externalizing environmental damage while reinforcing global inequalities.[210] Even in a low-carbon future, these dynamics risk reproducing injustice unless actively challenged. It is also rooted in a flawed economic system that priorities continued GDP growth above all else. This corrosive logic assumes that raising the incomes of the poorest to a level that is enough to survive must also involve raising the incomes of the richest – and it both tolerates growing inequality and accelerates ecological breakdown. It is also a system that fails to measure, recognize or value huge contributions to our wellbeing, like the billions of hours of unpaid care work undertaken every day by women and girls, especially those living in poverty and from marginalized groups.[211]

Confronting these interlocking injustices will require a systemic reorientation of economies and international norms. Frameworks such as circular, regenerative and wellbeing economies offer pathways to reduce material throughput, design out waste, and prioritize human and ecological flourishing over GDP growth: achieving these transformations should be the priority of Global North governments and corporations.

Learning from lived experience and historical lessons

The Well-being of Future Generations Act (2015) in Wales provides one example of how national policy can embed long-term thinking, intergenerational justice and sustainability into law.[212] By requiring public bodies to act in pursuit of wellbeing goals – including environmental resilience and global responsibility – the Act illustrates how governments can begin to reorient economies around people and planet, rather than short-term profit.

The Welsh experience is particularly significant, given its history of fuelling the UK's industrial rise through coal extraction – and the subsequent social and environmental costs of a transition that failed to support workers and communities. As a nation that has long experienced structural marginalization and high levels of poverty despite being part of a wealthy state, its turn toward wellbeing offers a symbolic and practical shift, even if the Act's ambitions remain only partially realized.

Just as these policy experiments can offer insight, so too can long-standing struggles and worldviews. Indigenous communities around the world have long modelled alternative relationships with energy, land and nature that are grounded in reciprocity, interdependence and care. Their leadership offers vital lessons for building systems that honour ecological limits and collective wellbeing over extraction and profit.

A new foundation for just transitions

As all countries grapple with the challenge of transition, there is a growing need to learn from such efforts – however incomplete – and to build frameworks that radically reduce inequality and are grounded in justice, care and collective prosperity at every level. Ultimately, creating a more equitable global energy future will require rebalancing not just where energy comes from, but who gets to use it, under what conditions, and for what purpose. This is not a call for a single blueprint, but an invitation to transform energy systems into tools for repair, redistribution and regeneration – supported by structural reforms in trade, finance, tax and technology.

RECOMMENDATIONS FOR A JUST ENERGY TRANSITION: ADDRESSING CLIMATE COLONIALISM

The energy transition is not inherently just: without systemic change it risks reproducing the same extractive and exploitative patterns that caused the climate crisis. A truly just, fast, feminist and funded transition requires not just cleaner energy, but fairer systems. This means redistributing power, remedying historical injustice, confronting systemic inequalities and building energy systems that serve people and the planet – not profit.

1.Differentiate transitions globally based on responsibility and capability

High-emitting countries should:

- Immediately ramp up their domestic climate mitigation plans in line with the 1.5°C warming target, and with the country's fair share, so as to not be in breach of international law (as stated by the International Court of Justice Advisory Opinion).
- Leave enough carbon budget for countries that have less capacity to transition from fossil fuels and are highly dependent on these fuels, and allow more time for their transition pathway.
- Radically increase climate finance to make up for historic emissions and support Global South countries' climate action.

All countries should:

- Adopt a climate justice and equity-based framework to define differentiated time-context pathways to phase out fossil fuels based on historical responsibility for the climate crisis, capacity to act and development needs.
- Ensure sufficient funding for those countries that are least responsible for the climate crisis and lack the fiscal space to transition from dirty to clean fuel.

2.Address overconsumption that drives global emissions

Governments from developed countries, but also many emerging economies, should:

- Set ambitious energy reduction targets, as reducing aggregate energy demand is the most immediate way to reduce greenhouse gas emissions. Additionally, set ambitious energy efficiency targets to further reduce energy consumption, specifically of the richest households.
- Commit to a shift in economic goals, away from an exclusive focus on GDP growth towards delivering wellbeing and justice for all within planetary boundaries.
- Develop and implement ambitious circular economy strategies to create regenerative value chains that reduce aggregate resource demand.
- Acknowledge the enormous climate debt that rich countries owe for their global carbon emissions and address this by financially supporting countries that did not contribute to the climate crisis.

All countries should:

- Set and pursue equitable energy targets such as the Modern Energy Minimum (MEM) of 1,000kWh/person/year to ensure equitable energy distribution worldwide and universal access. The MEM raises the standard well above the current SDG7 metric to establish a development-oriented benchmark for global electricity access that better reflects the energy needs required to lift people into middle-income status.

3.Transform trade and investment frameworks and reform tax systems

Current trade and investment regimes reinforce structural inequalities, especially between resource-rich developing countries and industrialized economies. These regimes often limit policy space, entrench extractivism and hinder the energy transition, hampering resource-rich countries trying to reassert control over their resources to add local value and build alternative economies that are not dependent on fossil fuels.

All countries should:

- Radically revise the rules, practices and institutions that govern investment and trade that currently block domestic value addition, technology transfer and industrial sovereignty in resource-rich countries and map out international investment and trade regimes that are sustainable, fair, inclusive and address historic imbalances.
    - End the investor–state dispute settlement (ISDS) system in investment treaties and contracts to ensure that states' abilities to regulate for climate justice, labour rights and local development are not constrained and to give producer countries more policy autonomy.

    - Build fair carbon border adjustment regimes, in particular amending the EU's Carbon Border Adjustment Mechanism (CBAM), the first fully implemented regime, by channelling CBAM revenues into additional climate finance for low-income countries (in need for finance to fund their transition) and providing an exclusion or exemption period for least developed countries.
- Implement fair international tax reforms to stop profit shifting and tax abuse by multinational corporations, enabling countries to retain public revenue for development.
    - End tax abuse by multinational corporations by putting in place effective and inclusive rules to end tax havens and shell companies, and institute global tax reforms through the UN Framework Convention on International Tax Cooperation to restore fiscal sovereignty for the Global South.
    - Ensure that the wealthiest individuals and most polluting companies pay for their own pollution:
        - The world's largest fossil-fuel companies make billions in profit and are responsible for a large proportion of global greenhouse gas emissions. A polluter profits tax on these companies would ensure that renewable energy is more profitable than fossil fuels, encouraging companies to invest in renewables, while revenues can be used to support climate action in Global South countries.
        - The wealth of the richest 1% has surged by US$33.9 trillion since 2015, enough to end annual poverty 22 times, yet billionaires only pay around 0.3% in real taxes. COP30 in Brazil, South African's presidency of the G20, and the negotiations for a UN Framework Convention on International Tax Cooperation are key opportunities for international cooperation to tax the super-rich and invest in equity and climate action in the Global South.
- Support regional development agendas such as the Africa Green Minerals Strategy, and go beyond with an OPEC-like mechanism for transition minerals led by the Global South. This would provide a roadmap for harnessing mineral wealth to drive value addition at source, regional industrialization and climate resilience. All countries should support this and other Global South initiatives.

4. End extractive finance and prioritize public investment

Currently, many low-income countries spend more on debt repayment than on climate action. Polluter countries need to recognize their responsibility for the climate crisis and pay for the damage. Global North countries with high historical emissions should:

- Cancel unsustainable debt to give low and middle-income countries the

fiscal space necessary to achieve the SDGs and Paris climate goals.

- Acknowledge historical injustices in the climate finance negotiations and adhere to the legally binding commitment to provide climate finance established in Article 9.1 of the Paris Agreement – and under international human rights treaties[213] – by increasing grant-based climate finance for loss and damage, adaptation and mitigation, as well as a just transition, including in programmes such as just energy transition partnerships (JET-Ps) that currently offer mostly loans rather than grants.
- Rebuild aid around principles of reparation not dependency and redirect aid flows towards reparative finance models that foreground community needs, gender justice and public good.

5. End extractive practices and ensure community consent

Fossil fuels, transition minerals and renewable energy such as green hydrogen have been and are being extracted, perpetuating cycles of exploitation and environmental harm. The following actions must be taken to break this cycle.

Global North countries should avoid and reduce the expansion of land and resource use abroad to meet climate targets by:

- setting ambitious direct emissions reduction targets without making use of carbon credits to offset emissions elsewhere.
- prioritizing energy sufficiency measures and reducing aggregate energy demand instead of driving up green hydrogen demand and investing only in green hydrogen under strict social, environmental and economic conditions, including the delivery of local benefits.
- reforming damaging bioenergy policies by ending all incentives for burning trees and crops, and implement the cascading principle – prioritizing the most efficient and sustainable uses of biomass, such as for building materials, products and recycling – so that burning biomass for energy is a last resort that is used in sectors with no other options.

All governments must:

- Ensure that free, prior and informed consent (FPIC) is guaranteed for Indigenous Peoples, as well as for local communities and other marginalized groups, as a best practice principle in all energy transition projects, including the sourcing of transition minerals.
- Cease land grabbing and forced evictions, respect legally recognize customary and collective tenure systems, and protect the land rights of women, Indigenous Peoples, peasants and other marginalized communities.
- Ban large-scale energy and mineral projects on disputed or ecologically critical lands and fully protect climate-critical ecosystems through Indigenous and community stewardship.

- Adhere to the highest environmental, human rights, transparency and labour standards when extracting transition minerals, with equitable benefits flowing directly to local population.
    - The Principles and Actionable Recommendations from the United Nations Secretary General (UNSG) panel on Critical Minerals represent a critical and timely step toward ensuring that the race to net zero does not increase inequality: the multistakeholder High-Level Expert Advisory Group (HLEAG) that carries forward the implementation of these recommendations should be established as soon as possible.

6. Democratize energy ownership and governance

Governments are providers of public goods and need to take a proactive role in shaping their economies for the common good, including energy. Donors looking primarily to the private sector and viewing the role of the state as using its resources to primarily derisk and facilitate private investors, described as the 'Wall Street Consensus', should recognise that this system failed to deliver the promised scale of finance, often socializes risk, privatizes profit and reinforces existing inequalities, leaving frontline and marginalized communities excluded from benefits. Power and control over energy systems should shift from private profit to public interest. Nations and communities should be enabled to shape their own energy paths.

All countries must:

- Reform national energy strategies to prioritize energy as a human right and public good, with strong environmental and social safeguards over export-driven, profit-maximizing models.
- Protect against elite capture by enforcing transparency and community oversight and strengthening participatory governance structures at all levels to ensure accountability and local empowerment.
- Prioritize public and community ownership models that treat energy as a human right and public good. Invest in decentralized renewable systems that are locally governed and tailored to the needs of communities, especially in rural and underserved areas.
- Ensure gender-transformative approaches by embedding care, wellbeing and the leadership of women and gender-diverse people at the heart of transition planning and invest in gender-responsive energy access that reduces unequal care responsibilities and enables women-led enterprises.

7. Embed justice at all levels of policy

Current (national) efforts on just transition are fragmented and risk being uneven, ad hoc and duplicative. There is a lack of transparency and accountability in implementing commitments and no common understanding of what constitutes a 'just' transition, with the clear risk of weak or even counterproductive initiatives. There is also a lack of sharing of experiences and lessons learned among countries, labour unions, communities, Indigenous Peoples and other stakeholders, which would support countries in developing just transition plans. An international mechanism is needed to ensure coherence in policies and practices across countries.

All countries must:

- Adopt an international mechanism at COP30 to accelerate, consolidate and achieve a holistic just transition across the whole economy within and between countries, through international cooperation based on the principles of equity and common but differentiated responsibilities and respective capacities (CBDR-RC). Its role is laid out below.
    - Identifying current gaps and filling these, overcoming barriers and avoiding the replication of just transition efforts among mechanisms and bodies worldwide.
    - Identifying ways forward on international cooperation and means of implementing a just transition.
    - Creating synergies and recommending and establishing common metrics or indicators for what constitutes a just transition.
    - Coordinating funding or supporting the establishment of a financial window for a just transition and guiding financial assistance to communities, workers and sectors facing decarbonization.
    - Building capacity and supporting countries – especially low-income countries – in developing context-specific just transition plans, ensuring that the benefits of climate action are shared fairly.
    - Tracking progress and supporting countries in being transparent and accountable in implementing their just transition commitments.
    - Facilitating the sharing of experiences, best practices and lessons learned among countries, labour unions, Indigenous Peoples and other stakeholders.

REFERENCES

1. *Unjust Transition: Methodology Note,* Stat 1c.
2. *Unjust Transition: Methodology Note,* Stat 2b.
3. *Unjust Transition: Methodology Note,* Stat 2c.
4. *Unjust Transition: Methodology Note,* Stat 5.
5. *Unjust Transition: Methodology Note,* Stat 7b.
6. *Unjust Transition: Methodology Note,* Stat 7a.
7. *Unjust Transition: Methodology Note,* Stat 8a.
8. *Unjust Transition: Methodology Note,* Stat 8b.
9. *Unjust Transition: Methodology Note,* Stat 8c.
10. According to The Nature Conservancy (source of the data), industrial activities undermining Indigenous Peoples' lands include renewable energy projects (42%), agriculture for crops and biofuels (14%), oil and gas (19%), mining (9%), urbanization (3%), and multiple sectors combined (13%). See the chart on page 24.
11. *Unjust Transition: Methodology Note,* Stat 4a.
12. *Unjust Transition: Methodology Note,* Stat 4b.
13. *Unjust Transition: Methodology Note,* Stat 9a.
14. *Unjust Transition: Methodology Note,* Stat 9b.
15. *Unjust Transition: Methodology Note,* Stat 9c
16. Development is one of the core concepts questioned by post-colonial thought, seen as an invention used to categorize countries within colonial geographies. For more on this, see A. Escobar. (1995). *Encountering Development: The Making and Unmaking of the Third World.* Princeton: Princeton University Press..
17. *Unjust Transition: Methodology Note,* Stat 13a.
18. *Unjust Transition: Methodology Note,* Stat 13b.
19. *Unjust Transition: Methodology Note,* Stat 10c
20. *Unjust Transition: Methodology Note,* Stat 11b.
21. *Unjust Transition: Methodology Note,* Stat 11c.
22. If inequality stays unchanged, lifting everyone to the World Bank's $25/day prosperity line would require all incomes, including those of the richest, to grow by 50 times – underscoring that while many Global South countries do need more growth and energy, redistribution is essential to make global wellbeing achievable and sustainable. For more on this see Oxfam. (2023). *Climate Equality: A planet for the 99%: Methodology Note.*
23. For conceptual precision, we should distinguish between climate colonialism and climate coloniality. The term *coloniality* refers to the enduring legacies of colonialism, including the power structures of domination *(coloniality of power)*, the subordination of other ways of knowing *(coloniality of knowledge)* and the dehumanization of the colonial subject *(coloniality of being)*, which continue to shape social, political and environmental relations. In contrast, colonialism refers to the formal occupation and governance of territories, which ends with a nation's declared independence.
    Thus, climate coloniality offers a more accurate lens, from a postcolonial perspective, to explain both how we arrived at the climate crisis within the framework of an ongoing colonial system even after formal decolonization, but also how some proposed solutions are themselves colonial and risk deepening existing inequalities.
    In some contexts, particularly where colonialism has not formally ended and independence remains unclaimed or territories are occupied, climate colonialism may be the more appropriate term, as it describes ongoing practices of dominance, exploitation and extraction within the climate crisis and under formal colonial relationships.
    For more on coloniality of power, see A. Quijano. (2000). 'Coloniality of Power, Eurocentrism, and Latin America'. *Nepantla: Views from South,* 1(3), 533–80. For more on coloniality of knowledge, see W. Mignolo. (2011). *The Darker Side of Western Modernity: Global Futures, Decolonial Options.* Durham: Duke University Press; M. Ndlovu. (2018). 'Coloniality of Knowledge and the Challenge of Creating African Futures'. *Ufahamu: A Journal of African Studies,* 40(2), 95–112. Accessed 8 August 2025. https://escholarship.org/uc/item/7xf4w6v7. For more on coloniality of being, see N. Maldonado-Torres. (2007). 'On the Coloniality of Being: Contributions to the Development of a Concept, *Cultural Studies,* 21(2–3), 240–70.; S. Wynter. (2003) 'Unsettling the Coloniality of Being/Power/Truth/Freedom: Towards the Human, After Man, its Overrepresentation – An Argument'. CR: *The New Centennial Review,* 3(3), 257–337. For more on climate coloniality, see F. Sultana. (2022). 'The Unbearable Heaviness of Climate Coloniality'. *Political Geography,* 99, 102638. Accessed 8 August 2025. https://www.sciencedirect.com/science/article/abs/pii/S096262982200052X N. De la Hoz, D. Silva-Garzón, N. Hernández-Vidal, L. Gutiérrez-Escobar, M. Hasenfratz and B. Fladvad. (2024). 'Unraveling the Colonialities of Climate Change and Action'. Grassroots – *Journal of Political Ecology*, 31, 625–34. Accessed 8 August 2025. https://journals.librarypublishing.arizona.edu/jpe/article/id/6365/

24. IEMA (Institute of Environmental Management and Assessment). (2023). Global South countries 'trapped' in fossil fuel production to repay debts, study finds. Accessed 17 June 2025. https://www.isepglobal.org/articles/global-south-countries-trapped-in-fossil-fuel-production-to-repay-debts-study-finds
25. Publish What You Pay. (2025). *Breaking Global Trade Barriers to a Just Energy Transition A Waiver for Climate Tech Access*. Accessed 3 July 2025. https://pwyp.org/wp-content/uploads/2025/06/TRIPS-Waiver-fact-sheet-1.pdf
26. International Energy Agency (IEA. (25 June 2025). *Energy access is improving, but international financial support is still needed to boost progress and address disparities*. Press release. Accessed 8 August 2025. https://www.iea.org/news/energy-access-improving-but-international-financial-support-still-needed-to-boost-progress-and-address-disparities
27. IEA, the International Renewable Energy Agency (IRENA), the United Nations Statistics Division (UNSD), the World Bank and the World Health Organization (WHO). (2025). Tracking SDG 7: *The Energy Progress Report 2025.* International Bank for Reconstruction and Development. Accessed 7 July 2025. https://www.worldbank.org/en/topic/energy/publication/tracking-sdg-7-the-energy-progress-report-2025
28. *Unjust Transition: Methodology Note,* Stat 3.
29. *IEA, IRENA, UNSD, the World Bank and WHO. (2025). Tracking SDG 7: The Energy Progress Report 2025*, op. cit.
30. Ibid.
31. *Unjust Transition: Methodology Note,* Stat 14b.
32. Assuming a wage of US$3 per hour. *See Unjust Transition: Methodology Note*, Stat 14a.
33. C. Coffey, P. Espinoza Revollo, R. Harvey, M. Lawson, A. Parvez Butt, K. Piaget, D. Sarosi and J. Thekkudan. (2020). Time to Care: Unpaid and Underpaid Care Work and the Global Inequality Crisis. Oxfam International. Accessed 17 June 2025. https://oxfamilibrary.openrepository.com/bitstream/handle/10546/620928/bp-time-to-care-inequality-200120-en.pdf
34. A. Malm. (2016) *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming*. London: Verso Books.
35. M. Svampa. (2023). *'Dilemas de la transición ecosocial desde América Latina'. In Transiciones justas: una agenda de cambios para América Latina y el Caribe,* 35–87. Buenos Aires: CLACSO/Oxfam. [Spanish]. Accessed 8 August 2025. https://biblioteca-repositorio.clacso.edu.ar/bitstream/CLACSO/248403/1/Transiciones-justas.pdf
36. G. Garavini. (2021) *The Rise and Fall of OPEC in the Twentieth Century.* Oxford: Oxford University Press.
37. *Unjust Transition: Methodology Note,* Stat 1b.
38. C.A. Forté. (6 May 2025). *US uranium mining legacy still harms the Navajo Nation.* Union of Concerned Scientists. Accessed 10 August 2025. https://blog.ucs.org/chanese-forte/us-uranium-mining-legacy-still-harms-the-navajo-nation
39. Native Knowledge 360°. (2018). *Treaties still matter: the Dakota access pipeline*. Smithsonian Institution. Accessed 10 August 2025. https://americanindian.si.edu/nk360/plains-treaties/dapl
40. M. Gower. (29 February 2024). *Regeneration of former industrial areas in the UK.* House of Lords Library. Accessed 10 August 2025. https://lordslibrary.parliament.uk/regeneration-of-former-industrial-areas-in-the-uk; V. Rueda. (2 June 2025). *How has deindustrialisation affected living standards in the UK?* Economics Observatory. Accessed 10 August 2025. https://www.economicsobservatory.com/how-has-deindustrialisation-affected-living-standards-in-the-uk
41. *Unjust Transition: Methodology Note,* Stat 1a.
42. *Unjust Transition: Methodology Note,* Stat 2c.
43. *Unjust Transition: Methodology Note*, Stat 2d.
44. M. Alestig, N. Dabi, A. Jeurkar and A. Maitland. (2024). *Carbon Inequality Kills: Why Curbing the Excessive Emissions of an Elite Few can Create a Sustainable Planet for All.* Oxfam international. Accessed 17 June 2025. https://policy-practice.oxfam.org/resources/carbon-inequality-kills-why-curbing-the-excessive-emissions-of-an-elite-few-can-621656
45. U. Patnaik and P. Patnaik. (2021). Capital and Imperialism: *Theory, History, and the Present.* New York: Monthly Review Press; M. Davis. (2001) Late Victorian Holocausts: *El Niño Famines and the Making of the Third World.* London: Verso Books.
46. United Nations Development Programme. (2023). *Bangladesh: Climate Promise country profile.* Accessed 10 August 2025. https://climatepromise.undp.org/what-we-do/where-we-work/bangladesh
47. D.M. Siddiqi. (26 March 2025). *What's happening in Bangladesh's garment industry?* Economics Observatory. Accessed 10 August 2025. https://www.economicsobservatory.com/whats-happening-in-bangladeshs-garment-industry; K. Farhana, M.T. Hasan and M.R. Islam. (2022). 'The Contribution of Ready-Made Garment Industry to Bangladesh Economy'. *International Journal of Industrial Management,* 13(1), 27–37. Accessed 10 August 2025. https://journal.ump.edu.my/ijim/article/view/7327/2498
48. Our World in Data (OWD) and United States Geological Survey (USGS). (2024). *Which countries have the critical minerals needed for the energy transition?* Accessed 10 August 2025. https://ourworldindata.org/countries-critical-minerals-needed-energy-transition
49. *Unjust Transition: Methodology Note*, Stat 5.
50. *Unjust Transition: Methodology Note*, Stat 6a.
51. *Unjust Transition: Methodology Note,* Stat 8a.

52. M. Pistilli. (4 June 2025). *Top 9 nickel-producing countries.* Investing News Network. Accessed 22 August 2025. https://investingnews.com/daily/resource-investing/base-metals-investing/nickel-investing/top-nickel-producing-countries/
53. OWD and USGS. (2024). *Which countries have the critical minerals needed for the energy transition?* op. cit.
54. *Unjust Transition: Methodology Note,* Stat 8a.
55. *Unjust Transition: Methodology Note,* Stat 8b.
56. *Unjust Transition: Methodology Note,* Stat 8c.
57. Business & Human Rights Resource Centre. (19 June 2024). *Boom in energy transition minerals fuels human rights abuses, provokes conflict and threatens fast transition to clean energy, new analysis shows*. Press release. Accessed 8 July 2025. https://www.business-humanrights.org/en/from-us/media-centre/boom-in-energy-transition-minerals-fuels-human-rights-abuses-provokes-conflict-and-threatens-fast-transition-to-clean-energy-new-analysis-shows
58. US Department of State. (July 2022). Forced Labor and the Clean Energy Transition: Finding a Responsible Way Forward. Accessed 8 July 2025. https://www.state.gov/wp-content/uploads/2022/07/Forced-Labor-and-the-Clean-Energy-Transition-Finding-A-Responsible-Way-Forward.pdf
59. Business & Human Rights Resource Centre. (25 June 2024). *Indonesia: nickel mining levels Kabaena Island forests without FPIC; locals experience adverse health, environmental & economic impacts.* Accessed 5 July 2025. https://www.business-humanrights.org/en/latest-news/indonesia-nickel-mining-levels-kabaena-island-forests-without-fpic-locals-experience-adverse-health-environmental-economic-impacts
60. Business & Human Rights Resource Centre. (1 October 2014). *Malaysia: report alleges lack of community consent for Lynas rare earths plant & raises serious waste management concerns.* Accessed 5 July 2025. https://www.business-humanrights.org/en/latest-news/malaysia-report-alleges-lack-of-community-consent-for-lynas-rare-earths-plant-raises-serious-waste-management-concerns
61. Amnesty International. (9 January 2025). *Philippines: nickel mining projects approved despite inadequate consultation and serious risks to communities' health and environment.* Accessed 5 July 2025. https://www.amnesty.org/en/latest/news/2025/01/philippines-nickel-mining-projects-approved-despite-inadequate-consultation-and-serious-risks-to-communities-health-and-environment
62. Amnesty International. (12 September 2023). *Democratic Republic of the Congo: industrial mining of cobalt and copper for rechargeable batteries is leading to grievous human rights abuses.* Accessed 17 June 2025. https://www.amnesty.org/en/latest/news/2023/09/drc-cobalt-and-copper-mining-for-batteries-leading-to-human-rights-abuses
63. Fair Finance International, Oxfam, Finanzas Justas Colombia and Finanzas con Derechos Peru. (2023). *A Toxic Legacy: Glencore's Footprint in Colombia and Peru.* Accessed 17 June 2025. https://policy-practice.oxfam.org/resources/a-toxic-legacy-glencores-footprint-in-colombia-and-peru-european-banks-and-inve-621550
64. Ibid.
65. Friends of the Earth Europe. (12 February 2025). *Joint statement on raw materials in EU–Indonesia CEPA.* Press release. Accessed 17 June 2025. https://friendsoftheearth.eu/publication/joint-statement-on-raw-materials-in-eu-indonesia-cepa
66. *Unjust Transition: Methodology Note,* Stat 6a.
67. *Unjust Transition: Methodology Note,* Stat 7b.
68. *Unjust Transition: Methodology Note,* Stat 7a.
69. Ibid.
70. *Unjust Transition: Methodology Note,* Stat 7b.
71. *Unjust Transition: Methodology Note,* Stat 6a.
72. *Unjust Transition: Methodology Note,* Stat 6b.
73. *Unjust Transition: Methodology Note,* Stat 6c.
74. T. Gore. (2022). *What Can Least Developed Countries and other Climate Vulnerable Countries Expect from the EU Carbon Border Adjustment Mechanism (CBAM)?* Institute of European Environmental Policy. Accessed 17 June 2025. https://ieep.eu/wp-content/uploads/2022/12/What-can-climate-vulnerable-countries-expect-from-the-EU-CBAM-IEEP-et-al-briefing-002.pdf
75. V. Weghmann and D. Hall. (2021). 'The Unsustainable Political Economy of Investor–State Dispute Settlement Mechanisms'. *International Review of Administrative Science,* 87(3), 480–96. Accessed 14 August 2025. https://journals.sagepub.com/doi/10.1177/00208523211007898
76. South Centre. (2024). *Input for the OHCHR Synthesis Report on Just Transition and Human Rights*. Accessed 4 July 2025. https://www.southcentre.int/wp-content/uploads/2025/02/South-Centre_Inputs_JustTransition_HR.pdf
77. Global Witness. (7 November 2024). *Critical mineral mines tied to 111 violent incidents and protests on average a year.* Accessed 17 June 2025. https://globalwitness.org/en/campaigns/transition-minerals/critical-mineral-mines-tied-to-111-violent-incidents-and-protests-on-average-a-year
78. N. Klein. (2007). *The Shock Doctrine: The Rise of Disaster Capitalism.* New York: Metropolitan Books.
79. A. Romandash. (5 June 2025). *Minerals for weapons: is Ukraine making a deal with the United States on its own terms?* Centre for International Governance Innovation. Accessed 14 August 2025. https://www.cigionline.org/articles/minerals-for-weapons-is-ukraine-making-a-deal-with-the-united-states-on-its-own-terms

80. D. Gayle. (15 May 2025). *UK urged not to exploit poor countries in rush for critical minerals.* The *Guardian*. Accessed 17 June 2025. https://www.theguardian.com/business/2025/may/15/uk-urged-not-to-exploit-poor-countries-in-rush-for-critical-minerals
81. Business & Human Rights Resource Centre. (13 November 2018). *Africa Mining Vision: opportunities and obstacles.* Accessed 17 June 2025. https://www.business-humanrights.org/en/latest-news/africa-mining-vision-opportunities-and-obstacles
82. African Minerals Development Centre. (2024). *Africa's Green Minerals Strategy.* Accessed 17 June 2025. https://au.int/sites/default/files/documents/44539-doc-AGMS_Final_doc.pdf
83. A.A. Mezied. (29 March 2023). Confronting energy poverty in Gaza. Al-Shabaka. Accessed 9 July 2025. https://al-shabaka.org/briefs/confronting-energy-poverty-in-gaza
84. Z. Cuyler. (January 2025). *Power struggles – energy as a weapon of war, domination and resistance in Palestine.* Middle East Research and Information Project. Accessed 9 July 2025. https://merip.org/2025/01/power-struggles-energy-as-a-weapon-of-war-domination-and-resistance-in-palestine/
85. United Nations Economic and Social Commission for Western Asia (UN ESCWA). (2023). *War on Gaza: Weaponizing Access to Water, Energy and Food as a Tool of War.* Accessed 31 July 2025. https://www.un.org/unispal/document/war-on-gaza-weaponizing-access-to-water-energy-and-food-escwa-policy-brief
86. Palestinian Centre for Human Rights. (26 June 2025). *Gaza on the brink of total collapse: Israeli occupation forces systematically destroy electricity infrastructure and cut off energy sources*. Accessed 9 July 2025. https://pchrgaza.org/gaza-on-the-brink-of-total-collapse-israeli-occupation-forces-systematically-destroy-electricity-infrastructure-and-cut-off-energy-sources
87. Human Rights Watch. (19 December 2024). *Extermination and acts of genocide: Israel is deliberately depriving Palestinians in Gaza of the means to survive.* Accessed 31 July 2025. https://www.hrw.org/report/2024/12/19/extermination-and-acts-genocide/israel-deliberately-depriving-palestinians-gaza
88. Z. Cuyler. (January 2025). *Power struggles,* op. cit.
89. A.A. Mezied. (29 March 2023). *Confronting energy poverty in Gaza,* op. cit.
90. K. Sandwell and H. Hamouchene. (2023). 'Arab–Israeli Eco-normalization: Greenwashing Settler Colonialism in Palestine and the Jawlan'. In H. Hamouchene and K. Sandwell (eds.), *Dismantling Green Colonialism: Energy and Climate Justice in the Arab Region,* 96–113. London: Pluto Press. Accessed 11 August 025. https://library.oapen.org/bitstream/handle/20.500.12657/77035/external_content.pdf?sequence=1
91. S. Harb. (February 2025). '"… they can't occupy the sun …": Cementing Heterogeneous Energy Configurations as Disentanglement in Imagining a Palestinian Cement Factory'. *Geoforum,* 159, 104203. Accessed 9 July 2025. https://www.sciencedirect.com/science/article/pii/S001671852500003X
92. Palestinian Institute for Climate Strategy (PICS) and Palestinian Boycott, Divestment and Sanctions National Committee (BNC). (2025). *No Climate Justice on Occupied Land: Centering Palestine at the UNFCCC SB62*. Accessed 17 June 2025. https://www.palclimateinstitute.org/media/centering-palestine-at-the-unfccc-sb62
93. Unjust Transition: Methodology Note, *Stat 4a.*
94. R. Kennedy, et al. (2023). 'Indigenous Peoples' lands are threatened by industrial development; conversion risk assessment reveals need to support Indigenous stewardship'. One Earth, 6(8). Accessed 10 August 2025. https://www.cell.com/one-earth/fulltext/S2590-3322(23)00340-8
95. F. Pearce. (2016). *Common Ground: Securing Land Rights and Saving the Earth.* Oxfam, International Land Coalition (ILC) and Rights and Resources Initiative (RRI). Accessed 10 August 2025. https://www.landrightsnow.org/app/uploads/2018/09/bp-common-ground-land-rights-020316-en_0.pdf
96. Transport & Environment and Oxfam. (2023). *Biofuels: An Obstacle to Real Climate Solutions*. Accessed 26 August 2025. https://oi-files-d8-prod.s3.eu-west-2.amazonaws.com/s3fs-public/2023-03/Biofuels%2C%20an%20obstacle%20to%20real%20climate%20solutions.pdf
97. IPES-Food. (2024). *Land Squeeze: What is Driving Unprecedented Pressures on Global Farmland and What Can be Done to Achieve Equitable Access to Land?* Accessed 26 August 2025. https://ipes-food.org/wp-content/uploads/2024/05/LandSqueeze.pdf
98. Transport & Environment and Oxfam. (2023). *Biofuels: An Obstacle to Real Climate Solutions,* op. cit.
99. H. Agrawal, L. El-Katiri, K.Muiruri and S. Szoke-Burke. (2023). *Enabling a Just Transition: Protecting Human Rights in Renewable Energy Projects.* ALIGN and Columbia Center on Sustainable Development. Accessed 26 August 2025. https://ccsi.columbia.edu/sites/ccsi.columbia.edu/files/content/docs/publications/final_RenewablesAndHumanRights%20(Brief).pdf; IPES-Food. (2024). *Land Squeeze,* op. cit.
100. S.T. Garnett, N.D. Burgess, J.E. Fa, Á. Fernández-Llamazares, Z. Molnár, C.J. Robinson, J.E.M. Watson, K.K. Zander, B. Austin, E.S. Brondizio, et al. (2018). 'A Spatial Overview of the Global Importance of Indigenous Lands for Conservation'. *Nature Sustainability,* 1(7), 369–74; Tribe Impact Capital. (23 February 2023). *What percentage of the population protects 80% of global biodiversity?* Accessed 11 August 2025. https://tribeimpactcapital.com/impact-hub/what-percentage-of-the-population-protects-80-of-global-biodiversity
101. *Unjust Transition: Methodology Note,* Stat 4b.
102. R. Kennedy, et al. (2023). *'Indigenous Peoples' lands are threatened by industrial development; conversion risk assessment reveals need to support Indigenous stewardship*', op. cit.
103. *Unjust Transition: Methodology Note,* Stat 4b.

104. IEA. (2025). World Energy Investment 2025. Accessed 10 August 2025. https://www.iea.org/reports/world-energy-investment-2025

105. P. Gamette, N.M. Odhiambo and S.A. Asongu. (2024). 'Access to Electricity and Income Inequality in Sub-Saharan Africa: An Exploratory Review'. *Sustainable Futures,* (8), 100361. Accessed 26 August 2024. https://doi.org/10.1016/j.sftr.2024.100361

106. Union of Concerned Scientists. (3 July 2025). *7 benefits of renewable energy use.* Accessed 26 August 2025. https://www.ucs.org/resources/benefits-renewable-energy-use

107. P. Gamette et al. (2024). *'Access to Electricity and Income Inequality in Sub-Saharan Africa: An Exploratory Review'* op. cit

108. Assembleia Legislativa do Estado de Pernambuco. (4 November 2024). *Comunidades cobram medidas contra impactos de eólicas*. [Portuguese]. Accessed 17 June 2025. https://www.alepe.pe.gov.br/2024/11/04/comunidades-do-agreste-cobram-medidas-para-reduzir-impactos-da-energia-eolica/#:~:text=A

109. I. França and R. Ebrahim. (17 February 2025). *Agricultores e povo Kapinawá ocupam prédio do governo em mais um protesto contra eólicas*. Marco Zero. [Portuguese]. Accessed 17 June 2025. https://marcozero.org/agricultores-e-povo-kapinawa-ocupam-predio-do-governo-em-mais-um-protesto-contra-eolicas

110. University College London. (13 May 2024). *'Green grabbing' of Brazilian public and common lands a threat*. Accessed 17 June 2025. https://www.ucl.ac.uk/news/2024/may/green-grabbing-brazilian-public-and-common-lands-threat

111. H. Hamouchene. (2023). 'The Energy Transition in North Africa: Neocolonialism Again!' In H. Hamouchene and K. Sandwell (eds.), *Dismantling Green Colonialism: Energy and Climate Justice in the Arab Region,* 30–51. London: Pluto Press. Accessed 11 August 2025. https://library.oapen.org/bitstream/handle/20.500.12657/77035/external_content.pdf?sequence=1

112. Ibid.

113. D. Skládalová. (28 February 2024). *Unmasking green colonialism in EU–Namibia hydrogen deal.* EJIL: Talk! Accessed 8 August 2025. https://www.ejiltalk.org/unmasking-green-colonialism-in-eu-namibia-hydrogen-deal

114. J. Tunn, F. Müller, J. Hennig, J. Simon and T. Kalt. (2024). 'The German Scramble for Green Hydrogen in Namibia: Colonial Legacies Revisited?' Political Geography, 118, 103293. Accessed 8 August 2025. https://www.sciencedirect.com/science/article/pii/S0962629825000253

115. Unjust Transition: Methodology Note, Stat 12.

116. T. Altenburg and A. Kantel. (2024). *Green Hydrogen in Namibia: Opportunities and Risks.* Discussion Paper 6/2024. German Institute of Development and Sustainability (IDOS). Accessed 8 August 2025. https://www.idos-research.de/fileadmin/user_upload/pdfs/publikationen/discussion_paper/2024/DP__6.2024.pdf

117. J. Tunn et al. (2024). 'The German Scramble for Green Hydrogen in Namibia', op. cit.

118. Fair Finance Asia. (2024). *Towards a Gender-Transformative Energy Transition in Asia.* Accessed 17 June 2025. https://fairfinanceasia.org/wp-content/uploads/2024/11/Report_FFA-2024_Towards-a-Gender-Transformative-Energy-Transition-in-Asia_Final.pdf; M.J. Rowley. (23 April 2024). *Comment: dear COP29, it's time to put women-led climate solutions on the agenda*. Reuters. Accessed 17 June 2025. https://www.reuters.com/sustainability/society-equity/comment-dear-cop29-its-time-put-women-led-climate-solutions-agenda-2024-04-23/?utm_source

119. D. Gabor. (2021). 'The Wall Street Consensus'. *Development and Change,* 52(3), 429–59.

120. Oil Change International. (15 November 2024). *COP29 explainer: why we can't rely on the private sector to finance the energy transition.* Accessed 17 June 2025. https://oilchange.org/blogs/cop29-explainer-why-we-cant-rely-on-the-private-sector-to-finance-the-energy-transition; F. Sial. (2024). *Blended Finance for Climate Action: Good Value for Money?* EURODAD. Accessed 17 June 2025. https://www.eurodad.org/blended_finance_for_climate_action_good_value_for_money

121. Governments of the Republic of South Africa, the United Kingdom of Great Britain and Northern Ireland, the United States of America, the Republic of France and the Federal Republic of Germany, and the European Union. (2 November 2021). *Political declaration on the just energy transition in South Africa.* Accessed 11 August 2025. https://webarchive.nationalarchives.gov.uk/ukgwa/20230106144924/https://ukcop26.org/political-declaration-on-the-just-energy-transition-in-south-africa

122. M. Franczak and K. Warner. (18 April 2024). *Designing climate finance packages that last.* United Nations University Centre for Policy Research (UNU-CPR). Accessed 10 July 2025. https://unu.edu/cpr/blog-post/designing-climate-finance-packages-last

123. S. Haag, F.D. Diop and T. Faye. (2025). *The Financing of the Energy Transition in Senegal: Green Promises, Unequal Gains?* Oxfam in Senegal. Accessed 19 August 2025. https://policy-practice.oxfam.org/resources/the-financing-of-energy-transition-in-senegal-green-promises-unequal-gains-621729

124. IESR (Institute for Essential Services Reform). (13 November 2023). *Kompas grants only 1.4 percent, energy transition potentially hampered*. Accessed 17 June 2025. https://iesr.or.id/en/kompas-grants-only-1-4-percent-energy-transition-potentially-hampered

125. Recourse. (2025). *'J' is for 'Just' in JET-Ps and Country Platforms: Lessons for Multilateral Development Banks in the Energy Transition*. Accessed 17 June 2025. https://re-course.org/publications/j-is-for-just-in-jet-ps-and-country-platforms-lessons-for-multilateral-development-banks-in-the-energy-transition

126. J. Kowalzig, T. Cherry-Virdee, R.B. Sørensen and S. Cutts. (2024). *Climate Finance Short-Changed, 2024 Update: Estimating the Real Value of the $100 Billion Commitment for 2021–22*. Oxfam Novib. Accessed 17 June 2025.

https://www.oxfamnovib.nl/Files/rapporten/2024/Climate%20Finance%20Short-Changed%202024.pdf

127. Debt Justice. (2024). *Debt Demands & Debunking Distractions for Climate Action.* Accessed 17 June 2025. https://debtjustice.org.uk/wp-content/uploads/2024/05/Debt-demands-for-climate-action_June-24.pdf

128. *Unjust Transition: Methodology Note,* Stat 13a.

129. Unjust Transition: Methodology Note, Stat 13b.

130. Tax Justice Network. (2024). *The State of Tax Justice 2024.* Accessed 17 June 2025. https://taxjustice.net/reports/the-state-of-tax-justice-2024

131. Ibid.

132. F. Mager. (2025). *Reclaiming Tax Sovereignty to Transform Global Climate Finance.* Tax Justice Network. Accessed 17 June 2025. https://taxjustice.net/wp-content/uploads/2025/06/Reclaiming-tax-sovereignty-to-transform-global-climate-finance-June-2025-Tax-Justice-Network.pdf

133. ActionAid International. (10 February 2025). *Who owes who? External debts, climate debts and reparations in the jubilee year.* Accessed 17 June 2025. https://actionaid.org/publications/2025/who-owes-who#downloads

134. Ibid.

135. A.L. Fanning and J. Hickel. (2023). 'Compensation for Atmospheric Appropriation'. *Nature Sustainability*, 6, 1077–86. Accessed 17 June 2025. https://www.nature.com/articles/s41893-023-01130-8

136. T. Woolfenden. (2023). *The Debt–Fossil Fuel Trap: Why Debt is a Barrier to Fossil Fuel Phase-out and What We Can Do About It.* Debt Justice. Accessed 9 July 2025. https://debtjustice.org.uk/wp-content/uploads/2023/08/Debt-fossil-fuel-trap-report-2023.pdf

137. Oxfam (11 June 2025). *Biggest-ever aid cut by G7 members a death sentence for millions of people, says Oxfam*. Press release. https://www.oxfam.org/en/press-releases/biggest-ever-aid-cut-g7-members-death-sentence-millions-people-says-oxfam

138. F. Harvey. (10 March 2025). *Trump's USAid cuts will have huge impact on global climate finance, data shows.* The Guardian. Accessed 17 June 2025. https://www.theguardian.com/environment/2025/mar/10/trumps-usaid-cuts-will-have-huge-impact-on-global-climate-finance-data-shows

139. P. Loft and P. Brien. (19 January 2024). *UK to reduce aid to 0.3% of Gross National Income from 2027*. UK Parliament Commons Library. Accessed 11 August 2025. https://commonslibrary.parliament.uk/uk-to-reduce-aid-to-0-3-of-gross-national-income-from-2027

140. Oxfam (11 June 2025). *Biggest-ever aid cut by G7 members a death sentence for millions,* op. cit.

141. A. Taneja, A. Kamande, C. Guharay Gomez, D. Abed, M. Lawson and N. Mukhia. (2025). *Takers Not Makers: The Unjust Poverty and Unearned Wealth of Colonialism*. Oxfam International. Accessed 17 June 2025. https://policy-practice.oxfam.org/resources/takers-not-makers-621668

142. C. Robinson. (2000). Black Marxism: The Making of the Black Radical Tradition. Chapel Hill: University of North Carolina Press; T. Mahmud. (2012). 'Debt and Discipline: Neoliberal Political Economy and the Working Classes'. Kentucky Law Journal, 101(1), 1–35. Accessed 10 August 2025. https://uknowledge.uky.edu/klj/vol101/iss1/4

143. S. Koshy, L.M. Cacho, J.A. Byrd and B.J. Jefferson (eds). (2023). Colonial Racial Capitalism. Durham: Duke University Press.

144. H. Fofack. (2021). The Ruinous Price for Africa of Pernicious 'Perception Premiums'. Africa Growth Initiative at Brookings. Accessed 17 June 2025. https://www.brookings.edu/wp-content/uploads/2021/10/21.10.07_Perception-premiums.pdf

145. M. Jones. (17 March 2021). COVID-19 has caused rich–poor split in sovereign rating cuts, study shows. Reuters. Accessed 17 June 2025. https://www.reuters.com/article/business/covid-19-has-caused-rich-poor-split-in-sovereign-rating-cuts-study-shows-idUSKBN2B92OX/

146. C. Kimeu. (17 October 2024). Negative stereotypes in international media cost Africa £3.2bn a year – report. The Guardian. Accessed 17 June 2025. https://www.theguardian.com/global-development/2024/oct/17/media-stereotypes-africa-higher-interest-report-payments-on-sovereign-debt

147. Unjust Transition: Methodology Note, Stat 9.

148. RAISG. (2021). *La Amazonía*. Atlas RAISG 2020. [Spanish]. Accessed 12 August 2025. https://atlas2020.amazoniasocioambiental.org/posts/amazonia; Oxfam. (2024). *Iniciativa Multipaís: 'Amazonía ya: acción global urgente por la vida'.* [Spanish]. Accessed 12 August 2025. https://lac.oxfam.org/informes/iniciativa-multipais-amazonia-ya-accion-global-urgente-por-la-vida

149. R. Butler. (21 November 2007). La Selva Amazonía. Mongabay. [Spanish]. Accessed 10 August 2025. https://es.mongabay.com/2007/11/la-selva-amazonia; A. Martins. (29 August 2017). Qué son los 'ríos voladores' de Sudamérica que llevan por aire tanta agua como el Amazonas. BBC News Mundo. [Spanish]. Accessed 12 August 2025. https://www.bbc.com/mundo/noticias-41038097

150. V. Romo. (27 February 2022). *#EntrevistaMongabay a Relator Especial de la ONU: 'En la Amazonía hay zonas de sacrificio ambiental por los derrames de petróleo.'* Mongabay. [Spanish]. Accessed 12 August 2025. https://es.mongabay.com/2022/02/entrevista-en-la-amazonia-hay-zonas-de-sacrificio-ambiental-por-los-derrames-de-petroleo; F.J. Ullán de la Rosa. (2004). 'La era del caucho en el Amazonas (1870–1920): *Modelos de explotación y*

relaciones sociales de producción'. Anales del Museo de América, 12, 183–204. [Spanish]. Accessed 12 August 2025. https://dialnet.unirioja.es/descarga/articulo/1180459.pdf; T. Borges and S. Branford. (21 December 2020). *Historical analysis: the Amazon's mineral wealth — curse or blessing?* Mongabay. Accessed 12 August 2025. https://news.mongabay.com/2020/12/historical-analysis-the-amazons-mineral-wealth-curse-or-blessing; S. Zanon. (21 March 2023). *Deforestation in the Amazon: past, present and future*. InfoAmazonia. Accessed 12 August 2025. https://infoamazonia.org/en/2023/03/21/deforestation-in-the-amazon-past-present-and-future

151. Oxfam. (2024). *Iniciativa Multipaís*, op. cit.
152. InfoAmazonia. (20 August 2025). *Organizações pedem que a Amazônia seja declarada zona mundial de exclusão de combustíveis fósseis*. [Portuguese]. Accessed 23 August 2025. https://infoamazonia.org/2025/08/20/organizacoes-pedem-que-a-amazonia-seja-declarada-zona-mundial-de-exclusao-de-combustiveis-fosseis
153. J. Hemming. (2022). *Árbol de ríos: La historia del Amazonas*. Lima: Fondo Editorial de la Pontificia Universidad Católica del Perú [Spanish]; E. Neves. (3 July 2023). *A Amazônia e seus povos têm história – e por isso a floresta se tornou o que é.* Sumaúma. [Portuguese]. Accessed 12 August 2025. https://sumauma.com/a-amazonia-e-seus-povos-tem-historia-e-por-isso-a-floresta-se-tornou-o-que-e/; N. Nenquimo and M. Anderson. (2024). *Seremos jaguares: vida y resistencia en la Amazonía.* Madrid: Editorial Planeta [Spanish].
154. A. Khalfan, A. Nilsson Lewis, C. Aguilar, J. Persson, M. Lawson, N. Dabi, S. Jayoussi and S. Acharya. (2023). *Climate Equality: A Planet for the 99%.* Oxfam International. Accessed 10 July 2025. https://policy-practice.oxfam.org/resources/climate-equality-a-planet-for-the-99-621551
155. Bretton Woods Project. (4 June 2019). *What are the main criticisms of the World Bank and the IMF?* Accessed 17 June 2025. https://www.brettonwoodsproject.org/2019/06/what-are-the-main-criticisms-of-the-world-bank-and-the-imf/#_Toc10127394
156. Energy Sector Management Assistance Program (ESMAP). (n.d.). *Tracking SDG7: The Energy Progress Report*. World Bank Group. Accessed 25 July 2025. https://trackingsdg7.esmap.org/downloads
157. Ibid.
158. Union of Concerned Scientists. (3 July 2025). *7 benefits of renewable energy use*, op. cit.
159. A.M. Feldpausch-Parker, D. Endres, T.R. Peterson and S.L. Gomez (eds). (2021). *Routledge Handbook of Energy Democracy.* Abingdon: Routledge.
160. Ministerio de Minas y Energía. (n.d.) *Así estamos construyendo las comunidades energéticas en Colombia.* [Spanish]. Accessed 17 June 2025. https://www.minenergia.gov.co/es/comunidades-energeticas
161. R. Mayne, D. Dalabajan and M. Adarve Zuluaga. (2025). *Pathways to a Fast and Just Energy Transition: Insights from Clean Energy Case Studies*. Oxfam GB. Accessed 17 June 2025. https://policy-practice.oxfam.org/resources/pathways-to-a-fast-and-just-energy-transition-insights-from-clean-energy-case-s-621695
162. For a more comprehensive overview that weighs both the benefits and challenges of the energy communities strategy, see R. Mayne et al. (2025). *Pathways to a Fast and Just Energy Transition,* op. cit.
163. S. Kim. (30 June 2024). *Renewable energy as a solution to Senegal's energy poverty.* The Borgen Project. Accessed 17 June 2025. https://borgenproject.org/senegals-energy-poverty
164. Energy4Impact. (12 July 2022). *Designing mini-grid systems around productive uses of energy to spur rural development in Senegal.* Accessed 17 June 2025. https://www.energy4impact.org/resources/designing-mini-grid-senegal
165. Global Energy Alliance for People and Planet. (7 May 2025). *Tariff inequities strain Brazil's poorest: new GEAPP & PSR study proposes reforms for fairer electricity costs*. Press release. Accessed 17 June 2025. https://energyalliance.org/brazil-electricity-tariff-inequity-reform-study
166. Just Transition. (2024). *The Nga Awa Purua Geothermal Project, Rotokawa, New Zealand Tauhara North No.2 Trust.* Accessed 17 June 2025. https://media.business-humanrights.org/media/documents/Tauhara_North_No2_Trust_paper.pdf
167. R. Mayne et al. (2025). *Pathways to a Fast and Just Energy Transition,* op. cit.
168. A. Owiti. (2022). E*xperiences from Kenya: The Kipeto Wind Power Project.* The African Forum and Network on Debt and Development (AFRODAD). Accessed 10 July 2025. https://us.boell.org/sites/default/files/2022-10/5-report-kenya-n-pw.pdf
169. R. Mayne et al. (2025). *Pathways to a Fast and Just Energy Transition,* op. cit.
170. For a more comprehensive overview that weighs both the benefits and challenges of the Kipeto wind farms, see R. Mayne et al. (2025). *Pathways to a Fast and Just Energy Transition*, op. cit.
171. S. Oparaocha and S. Dutta. (2011). 'Gender and Energy for Sustainable Development'. *Current Opinion in Environmental Sustainability*, 3(4), 265–71.
172. ENERGIA International Network on Gender and Sustainable Energy. (2020). *The ENERGIA Gender and Energy Research Programme: A Short Overview of the Results.* Accessed 17 June 2025. https://energia.org/assets/2020/03/Energia-News-March-2020.pdf
173. E. Cecelski and S. Dutta. (2011). *Mainstreaming Gender in Energy Projects: A Practical Handbook.* ENERGIA International Network on Gender and Sustainable Energy. Accessed 17 June 2025. https://energia.org/assets/2016/02/01.-Mainstreaming_gender_in_energy_projects_A_practical_Hand_book1.pdf

174. S. Oparaocha and M. Matinga. (15 May 2025). *Gender equality in Africa's energy transition.* ENERGIA International Network on Gender and Sustainable Energy. Accessed 17 June 2025. https://energia.org/gender-equality-in-africas-energy-transition

175. Ashden. (2015). *Ashden winners: Sarhad Rural Support Programme (SRSP)*. Accessed 17 June 2025. https://ashden.org/awards/winners/sarhad-rural-support-programme-srsp-1

176. R. Mayne et al. (2025). *Pathways to a Fast and Just Energy Transition*, op. cit.

177. G. Garcia and M. Beltran. (27 February 2025). *In remote Philippine villages, micro-hydro alternatives power Indigenous homes.* Mongabay. Accessed 17 June 2025. https://news.mongabay.com/2025/02/in-remote-philippine-villages-micro-hydro-alternatives-power-indigenous-homes

178. R. Halip. (24 February 2025). *For ALL women and girls: Robie Halip on Indigenous leadership in renewable energy transition*. UN Women. Accessed 17 June 2025. https://www.unwomen.org/en/news-stories/interview/2025/02/for-all-women-and-girls-robie-halip-on-indigenous-leadership-in-renewable-energy-transition

179. CWEARC (Cordillera Women's Education Action Research Center). (1 June 2012). *Changing the lives of Mabaca indigenous peasants and women through the power from water*. Accessed 17 June 2025. https://cwearc.org/changing-the-lives-of-mabaca-indigenous-peasants-and-women-through-the-power-from-water

180. A.P. Butt, E. Berkhout, C.M. Zaghbour, A. Bush, R. Verma and L.L. Pheko. (2023). *Radical Pathways Beyond GDP: Why and How We Need to Pursue Feminist and Decolonial Alternatives Urgently.* Oxfam GB. Accessed 17 June 2025. https://policy-practice.oxfam.org/resources/radical-pathways-beyond-gdp-621532

181. D. Andreucci, G.A. García López, J. Franquesa and L. González Nieves. (2025). 'Energy Sovereignty from Below: Visions and Practices of Socioecological Transformation in Puerto Rico and Catalonia'. *Human Geography,* 18(2), 162–77; J. Sánchez Contreras, A. Matarán Ruiz, Á. Campos-Celador and E.M. Fjellheim. (2023). 'Energy Colonialism: A Category to Analyse the Corporate Energy Transition in the Global South and North'. Land, 12(6), 1241. Accessed 14 August 2025. https://www.mdpi.com/2073-445X/12/6/1241

182. L. Céspedes and J. Gorriti. (2021). *Neoextractivismo y neodesarrollismo: Actores y disputas en torno a la extracción del litio en Bolivia.* Universidad Nacional de Cuyo. [Spanish]. Accessed 14 August 2025. https://bdigital.uncu.edu.ar/objetos_digitales/16913/31-cspedes-ponencia.pdf

183. A. Cartagena. (10 May 2023). *Chile: La nueva estrategia del litio. Retos para la gobernanza.* Natural Resource Governance Institute (NRGI). [Spanish]. Accessed 23 August 2025. https://resourcegovernance.org/es/articles/chile-la-nueva-estrategia-del-litio-retos-para-la-gobernanza

184. P. Leet. (2025). 'Financiarización, hegemonía y minerales estratégicos en América Latina: la gobernanza sobre el litio en Bolivia, Chile y México'. *Ola Financiera,* 18(50), 15–24. [Spanish]. Accessed 23 August 2025. http://www.olafinanciera.unam.mx/new_web/50/pdfs/PDF50/LeetOlaFinanciera50.pdf

185. Así se ve la minería en México – Documentación Colectiva. [Spanish]. https://asisevelamineriaenmexico.org.mx. Accessed 17 June 2025; Secretaría de Economía, Gobierno de Mexico. (4 May 2023). *Reforma integral a la actividad minera*. Press release. [Spanish]. Accessed 17 June 2025. https://www.gob.mx/se/prensa/reforma-integral-a-la-actividad-minera

186. R. Mayne et al. (2025). *Pathways to a Fast and Just Energy Transition*, op. cit.

187. B. Müller, M. Pérez Rocha and C. Olivet. (2024). *A Portrait of Transnational Power in Mexico: The Investment Protection Regime and its Consequences.* Transnational Institute (TNI). Accessed 17 June 2025. https://isds-americalatina.org/wp-content/uploads/2024/09/ISDS_Mexico24_ENG_September2024.pdf

188. R. Mayne et al. (2025). *Pathways to a Fast and Just Energy Transition*, op. cit.

189. J. Lecourt and M. García. (2023). *Transición justa: contexto y recomendaciones para su aplicación en la región de América Latina.* ONG CEUS Chile. [Spanish]. Accessed 14 August 2025. https://www.ceuschile.cl/wp-content/uploads/2024/06/Transicion-Justa-Contexto-y-recomendaciones.pdf

190. International Labour Organization (ILO). (2015) *Guidelines for a Just Transition towards Environmentally Sustainable Economies and Societies for All.* Accessed 10 February 2025. https://www.ilo.org/media/435091/download; UN Climate Change Conference UK 2021. (4 November 2021). *Supporting the conditions for a just transition internationally.* Press release. The National Archives. Accessed 10 February 2025. https://webarchive.nationalarchives.gov.uk/ukgwa/20230313132211/https://ukcop26.org/supporting-the-conditions-for-a-just-transition-internationally

191. A. Taneja et al. (2025). *Takers Not Makers*, op. cit.

192. L. Kassim. (2 April 2024). *The just transition in South Africa: jobs and livelihoods in the coal industry*. Oxford Martin School. Accessed 17 June 2025. https://www.oxfordmartin.ox.ac.uk/blog/the-just-transition-in-south-africa-jobs-and-livelihoods-in-the-coal-industry

193. N. Obermeister, M. Nhlabathi, J.K. Musango and A. Burger. (2022). *From Coal to Renewables in Mpumalanga: Employment Effects for Coal Transition in South Africa's Coal Mining Heartland.* IASS/Council for Scientific and Industrial Research (CSIR). Accessed 7 July 2025. https://www.esi-africa.com/wp-content/uploads/2022/01/COBENEFITS-Study_From-coal-to-renewables-in-Mpumalanga.pdf

194. For a more comprehensive overview that weighs both the benefits and challenges of coal decommissioning in Mpumalanga, see R. Mayne et al. (2025). *Pathways to a Fast and Just Energy Transition,* op. cit.

195. R. Mayne et al. (2025). *Pathways to a Fast and Just Energy Transition*, op. cit.

196. WHO. (n.d.). *Environment, climate change and health: strategies for healthy and sustainable transport.* Accessed 26

August 2025. https://www.who.int/teams/environment-climate-change-and-health/healthy-urban-environments/transport/strategies

197. This must be differentiated from biomass projects at a local scale – particularly in communities implementing circular economy models – which have demonstrated positive effects.

198. *Unjust Transition: Methodology Note,* Stat 2b.

199. *Unjust Transition: Methodology Note,* Stat 1c.

200. *A. Khalfan et al. (2023). Planet Equality,* op. cit.

201. P. Rangaprasad. (17 July 2024). *UN Tax Convention negotiations is a historic opportunity to reform the broken international tax system.* AG Globale Verantwortung. Accessed 26 August 2025. https://www.globaleverantwortung.at/kommentar-der-anderen-un-tax-convention-negotiations

202. A. Khalfan. (19 June 2025). *Rich polluter profits tax could raise up to $400 billion and help phase out fossil fuels*. Oxfam International. Accessed 10 July 2025. https://www.oxfam.org/en/blogs/rich-polluter-profits-tax-could-raise-400-billion-and-help-phase-out-fossil-fuels

203. *Unjust Transition: Methodology Note,* Stat 10b.

204. *Unjust Transition: Methodology Note*, Stat 10a.

205. *Unjust Transition: Methodology Note*, Stat 10b.

206. *Unjust Transition: Methodology Note*, Stat 10c.

207. *Unjust Transition: Methodology Note*, Stat 11a.

208. *Unjust Transition: Methodology Note*, Stat 11b.

209. *Unjust Transition: Methodology Note*, Stat 11c.

210. J. Hickel, C. Dorninger, H. Wieland and I. Suwandi. (2022). 'Imperialist Appropriation in the World Economy: Drain from the Global South through Unequal Exchange, 1990–2015'. *Global Environmental Change*, 73, 102467. Accessed 10 July 2025. https://doi.org/10.1016/j.gloenvcha.2022.102467

211. C. Coffey, et al. (2020). Time to Care, op. cit.

212. Future Generations Commissioner for Wales. (2015). *Well-being of Future Generations Act 2015*. Accessed 17 June 2025. https://futuregenerations.wales/discover/about-future-generations-commissioner/future-generations-act-2015

213. Committee on the Elimination of Discrimination against Women, Committee on Economic, Social and Cultural Rights; Committee on the Protection of the Rights of All Migrant Workers and Members of Their Families, Committee on the Rights of the Child and the Committee on the Rights of Persons with Disabilities. (2020). *Statement on Human Rights and Climate Change (HRI/2019/1).* Accessed 17 June 2025. https://digitallibrary.un.org/record/3871313?ln=en

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