INETTT
International
Network of
Energy Transition
Think Tanks

Just energy transitions in developing countries

Experience from JETP initiatives

Citation: International Network of Energy Transition Think Tanks (INETTT) (2025): Just energy transition finance in developing countries. Experience from JETP initiatives.

Publication number: 001/01-2025

About INETTT

The International Network of Energy Transition Think Tanks (INETTT) is a global network of independent think tanks working to advance energy transitions at the national and international level towards climate neutrality by mid-century. The network provides a platform for collective action and knowledge-sharing, drawing on the expertise of its diverse members, stimulating learning on energy transitions and engaging with policymakers, industry representatives and civil society stakeholders to increase ambition and impact.
https://www.inettt.org/

Address

International Network of Energy Transition Think Tanks (INETTT)
Anna-Louisa-Karsch-Straße 2
10178 Berlin | Germany
https://www.inettt.org/

Authors

This publication was written by Laura El-Katiri under the direction of Rabia Ferroukhi (both INETTT Secretariat), in consultation with INETTT members.

Acknowledgements

We extend our sincere gratitude to Deon Arinaldo (Institute for Essential Service Reforms, IESR), Karin Kritzinger (Agora Energiewende), Tracey Ledger (Public Affairs Research Institute, PARI), Jack Radmore (GreenCape), Shravya Reddy (Regulatory Assistance Project, RAP) and Giovanni Andrés Pabón Restrepo (Transforma) for their valuable review and feedback.

Special thanks to Maia Haru Hall for publication and editorial support, Neil MacDonald for editing and proofreading and WeDo Design for the report's design and layout.

Contents

Executive summary 04

1 Introduction 06

2 Three pillars of just transitions 09

2.1. Distributional justice: Risks, impacts, opportunities and benefits 11
2.2. Procedural justice: Agency and accountability 13
2.3. Recognition and restorative justice: Transformational change 15

3 Transition finance and the case of Just Energy Transition Partnerships 17

3.1. The importance of transition finance for just transitions 18
3.2. Types of transition finance for developing countries 19
3.3. JETPs in theory and practice 19

4 Conclusions 29

4.1. The need for country-owned transition finance 30
4.2. Transparency, accountability and the public 31
4.3. Human rights principles as part of transition finance 32
4.4. Future areas of work on JETPs 33
4.5. The way forward 34

Recommended reading 35

References 36

Endnotes 43

Figures, boxes and tables

FIGURE 1 Electricity generation capacity in the four JETP countries by share of technology (%), 2023 22
FIGURE 2 Access to electricity and Clean cooking fuels and technology in JETP countries (%), 2022 23
FIGURE 3 JETP funds for Viet Nam 27
BOX 1 The scale of the challenge 22
BOX 2 How GFANZ defines transition finance 25
TABLE 1 JETP financial commitements by International Partners Group 20
TABLE 2 Key GFANZ financing strategies 25
TABLE 3 South Africa's JET-IP funding requirements, 2023-2027 26

Executive summary

Energy systems worldwide require urgent transformation to tackle the escalating climate crisis, support long-term economic development and reinforce energy security. However, climate mitigation and energy transformation will affect certain workers, consumers and communities negatively in the short term.

This brief considers how those various objectives can be reconciled through just energy transition polices in developing countries and reflects on initial experiences with a relatively new financing mechanism, the Just Energy Transition Partnership (JETP).

To meet climate goals, energy transitions need to happen rapidly. But to be widely socially accepted and sustainable, they must also be just and equitable. A just transition must therefore address all sectors of the economy. It must also address social and economic challenges, such as poverty, unequal energy access and historical injustices.

As the Paris Agreement reaffirms, developing countries need support from more developed nations to turn ambitious decarbonisation goals into effective climate action. Adequate financing is essential to avoid lock-in with fossil fuel investments and let countries pursue climate action without sacrificing economic development.

Just transition finance ensures all countries and regions have sufficient funds for climate mitigation and adaptation. In parallel, it transfers funds from the countries most responsible for greenhouse gas emissions to those most vulnerable to the resulting climate change.

Just energy transitions depend on three key pillars:

- Distributional justice – the just distribution of costs and benefits from the energy transition;
- Procedural justice – due process, good governance and the rule of law at different levels of the energy transition; and
- Recognition and restorative justice – the protection and recognition of rights of different groups in society, especially vulnerable and historically marginalised groups, and support for victims of damaging activities.

“Adequate financing is essential to avoid lock-in with fossil fuel investments and let countries pursue climate action without sacrificing economic development.”

Without those elements, neither national energy transitions nor the crucial global energy transition will be feasible or sustainable.

Developing countries can tap into various types of climate finance for energy transition projects. Key sources include climate finance-related pledges by developed nations; the Global Environment Facility; the Green Climate Fund; separate funds for climate adaptation; the Loss and Damage Fund agreed at COP28; and new quantified goals set at COP29.

The JETP model, first announced at the UN climate change conference (COP26) in 2021, aims to provide additional financing for the transition away from high-emitting fossil fuels, in particular coal. Indonesia, Senegal, South Africa and Viet Nam have signed JETP agreements with partner countries, including G7 and several EU countries, while case evidence from Colombia’s energy transition provides additional insights.

This brief draws main insights from the experience gained so far with JETPs that are key for any successful climate finance.

1. Transition finance needs to be truly country-owned. Experience with JETPs demonstrates the need for high-level political cooperation between international funders and recipient countries. However, greater ambition and diplomatic endorsement is needed on both sides of such partnerships to align financing with national and local priorities where the transition is happening.

2. Transition finance requires transparency and public accountability. Transition finance alone does not guarantee justice. Regardless of the “just” label, mechanisms and institutions involved in just energy transition policies must demonstrate transparency and accountability. This requires managing and sharing data and information, both with the citizens directly affected and with the wider national and global public. Future international efforts could establish a standardised framework to address concerns like “greenwashing” and bolster the credibility of transition finance initiatives.

3. Integrating human rights principles into transition finance strategies strengthens equitable and inclusive development. Beyond making projects bankable and helping to measurably reduce emissions, transition finance can drive the creation of legal and regulatory frameworks that boost visibility for sustainable, rights-based socioeconomic development. Financing institutions and donor governments, as well as private businesses receiving transition finance, must proactively address the impact of new energy projects on local communities, including their social, cultural, economic and human rights. Just transition projects need due diligence, environmental and social impact assessments, and clear grievance and monitoring mechanisms that recognise the rights of affected populations as well as the value they bring to their land.

The brief concludes with suggestions for future research on JETPs, and how lessons learnt from such research can inform the design of better climate finance.

1 Introduction

"Just transition ensures that the social and economic burdens of change do not fall disproportionately on those who are already most vulnerable"

The growing climate crisis calls for urgent decarbonisation of energy systems worldwide, with comprehensive transitions to net-zero emissions within a few decades.[1] However, energy transitions do not take place in isolation from broader social and economic realities. Efforts to combat climate change and transform energy systems can often, in the first instance, harm certain workers, consumers and communities, including Indigenous peoples.[2]

A growing body of literature, therefore, advocates for a global energy transition that is not only fast and effective, but also just and equitable. A just transition ensures that the social and economic burdens of change do not fall disproportionately on those who are already most vulnerable. Achieving this requires broad socioeconomic policies that address the needs of industries, businesses and households alike.[3] Challenges such as poverty, unemployment, energy access gaps, weak land regulation and histories of political injustice must all be considered as countries decarbonise.

The 2015 Paris Agreement recognises the need to support developing countries with transition finance to address climate change. Without sufficient financial support, those countries may remain dependent on fossil fuels, lock themselves into unsustainable energy and infrastructure investments or be forced to choose between economic development and climate action.[4]

Transition finance can promote justice in two main ways. First, it can equip countries, regions and communities with sufficient funds for a fair decarbonisation process. Second, it can transfer funds from developed nations – historically responsible for most greenhouse gas emissions – to those that have contributed the least but are most vulnerable to climate change.

What is transition finance?

In its broadest sense, climate finance spans local, national and transnational financing aimed at supporting climate mitigation and adaptation. It can come from public, private or alternative sources.[5] Transition finance, as a sub-category of climate finance, refers to any form of financial support that helps decarbonise high-emitting activities or enables the decarbonisation of other economic activities.[6] Thus, it primarily concerns the mitigation side of climate action – transition mainly needed in the energy sector.

This brief considers just energy transitions in developing countries and the experience gained with one kind of financing mechanism, the Just Energy Transition Partnership (JETP). Following the introductory overview, Section 2 examines the three key pillars of a just transition, namely:

- Distributional justice – the just distribution of costs and benefits from the energy transition;
- Procedural justice – due process, good governance and the rule of law at different levels of the energy transition; and
- Recognition and restorative justice – the protection and recognition of rights of different groups in society, especially vulnerable and historically marginalised groups, and support for victims of damaging activities.

Section 3 explores the role of transition finance, options for developing countries and how JETPs function, both in theory and in practice. It offers examples from Indonesia, Senegal, South Africa and Viet Nam, all four of which have signed JETP agreements, and finally also Colombia. This provides case studies on JETPs and associated socioeconomic development concerns, along with broad observations that may apply in other countries and regions.

Finally, Section 4 lays out conclusions and lessons learned on how to improve future transition finance packages to ensure energy transitions are more just and equitable.

2 Three pillars of just transitions

> “A just transition considers and addresses potential disruptions to the socioeconomic landscape.”
>
> African Development Bank, 2023

The concept of a just transition has become central to global decarbonisation efforts. While the idea is neither new nor uniformly defined, it consistently reflects a combination of moral and practical considerations. Firstly, it implies an ethical argument that global energy decarbonisation should not happen at the expense of the most vulnerable. Secondly, it suggests that only a transition seen to benefit people in the real world will be broadly accepted, and in turn politically feasible – and ultimately successful.

Evolving definitions of just transitions

The idea of just transitions traces its origin back to the United States’ labour movement of the 1970s and 1980s in support of workers losing jobs, firstly due to disarmament and later to environmental regulation.[7] Since the 2000s, the concept has become part of international climate debates, appearing in the negotiation text of the Copenhagen Summit in 2009 and again in 2015, when it found its way into the preamble of the Paris Agreement.[8]

The Paris Agreement calls for “climate justice” to enhance national ambitions, emphasising:

> the imperatives of a just transition of the workforce and the creation of decent work and quality jobs in accordance with nationally defined development priorities.[9]

The International Labour Organization (ILO) maintains definitions of justice rooted in the labour movement, defining just energy and climate action as:

> greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind.[10]

At the level of United Nations climate negotiations, cover decision by the 28th Conference of the Parties (COP28), held in Glasgow in 2021, recognised:

> the need to ensure just transitions that promote sustainable development and eradication of poverty, and the creation of decent work and quality jobs, including through making financial flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development, including through deployment and transfer of technology, and provision of support to developing country Parties.[11]

A separate UN report concluded:

> Moving towards a low-carbon and environmentally friendly economy can reprioritise development objectives towards sustainable, equitable development, harness the opportunities associated with the development of products and services, increase the participation of women in labour markets, ensure the protection of ecosystems and biodiversity and build resilience. (…) The concept of a just transition acknowledges that potential as well as the need to address trade-offs

> on the path towards sustainability. It should involve not only targeted compensatory measures, but also a process of embedding equity, inclusiveness and respect for human rights in sectoral and cross-cutting policy areas.[12]

And according to the African Development Bank:

> A just transition considers and addresses potential disruptions to the socioeconomic landscape. It would minimise or avert potential risks, pushing for all communities to reap development benefits, particularly historically disadvantaged and under-represented groups, such as women, youth, older people, informal workers, people with disabilities, migrants and minorities.[13]

Further, specific themes linked to a just transition include environmental justice[14] and energy justice or access to energy.[15] Other groups see just transition more as a system-wide "shift from an extractive economy to a regenerative economy".[16]

The African Development Bank points out a fundamental difference between developed and developing economies in their approach to the energy transition. In developed countries, a just transition is generally considered "subtractive", aiming "to diminish or minimise the negative impacts" on overall prosperity. By contrast, in developing and least developed countries, it needs to be "additive", aiming "to amplify or maximise development and prosperity".[17]

By now, a wide body of literature attempts to define what a socially, environmentally and economically just transition looks like in practice.[18]

While definitions vary, three main pillars recur:

- Distributional justice – the just distribution of costs and benefits from the energy transition;
- Procedural justice – due process, good governance and the rule of law at different levels of the energy transition; and
- Recognition and restorative justice – the protection and recognition of rights of different groups in society, especially vulnerable and historically marginalised groups, and support for victims of damaging activities.

2.1. Distributional justice: Risks, impacts, opportunities and benefits

Distributional justice "deals with the unjust distribution of costs and benefits from the energy transition; for example, revenue management, social and environmental impacts, issues around taxation and transparency."[19]

The transition away from oil, coal and natural gas is anticipated to have many consequences on people and the economy that differ notably across societies, countries and regions. Fossil fuels are a significant political factor, generating export revenues for producing countries that are then used by governments to invest in infrastructure and other social services, while also driving economic activity across a range of adjacent industries and businesses.

Extracting, producing and using fossil fuels for domestic power generation and industries entails long-term economic and job dependency. For most people, immediate economic opportunities and challenges weigh more heavily than the abstract risk of climate change, even knowing its future impact on people and economies.

Fossil fuel industries typically exert significant political influence, even at intergovernmental climate forums, often being closely intertwined with intertwined with key national and international enterprises, business interests, and political party funding. The result is often an uneven debate around who would benefit from abandoning energy sources that have that have partly served successive generations well, and supported economic development, in addition to funding government budgets.[20]

A key part of the debate around just transitions is the question of who should pay for decarbonisation, particularly in developing countries. Those countries hold relatively little historical responsibility for greenhouse gas emissions; have lower capacity – financial or otherwise – to transform their energy systems without harming low-income households and are often exceptionally vulnerable to the negative impacts of climate change. The UNFCCC recognises this through its concept of "common but differentiated responsibility and respective capabilities."[21]

Africa for example, accounted for around 17.5% of the world's population in 2021, but has contributed only 2.7% of cumulative global carbon dioxide (CO_2) emissions since 1751.[22] At the same time, Africa is among the parts of the world most vulnerable to the negative impacts of climate change.[23]

Many developing countries emphasise their right to development, including in the context of international climate mitigation efforts.[24] Transition finance, along with other forms of international cooperation, can help developing countries make the transition away from fossil fuels.[25]

At the same time, the energy transition can offer many immediate socioeconomic benefits, including new direct and indirect job creation across different sectors, as well as significant environmental and health benefits.[26] However, such benefits will not accrue automatically. Wider socioeconomic reform and proactive policies are needed to make sure benefits, as well as negative impacts, are evenly distributed across different communities and geographic areas. Here, too, transition finance is critical for countries to benefit fully from the transition.

Distributional justice narratives: Indonesia, Colombia, Viet Nam and South Africa

In **Indonesia**, for instance, coal mining communities could be hit hard by the country's intended phase-down of thermal power plants. According to Rizky Fauzianto, manager for the Global South at independent nonprofit Rocky Mountain Institute (RMI):

> We have 250,000 people in Indonesia working in the coal mining sector [...]. If we close down the coal power plants and coal mines, we have to ensure that these communities get some financial help. For us, that's what a just transition means.[27]

Government decisions on the energy transition can affect areas of long-standing social and political fragility. **Colombia**, for example, faced decades of conflict, driven and shaped by economic inequalities, with enduring gaps along urban/rural, geographic, ethnic and gender lines.[28] As in many countries, vast economic inequalities must be managed for continued peace and overcome for resilient human development, and any abrupt change to the economic status quo – including rapidly phasing out entire industrial sectors – risks sparking further political instability.[29]

The World Bank has recognised other challenges with financing energy transition investments in **Viet Nam**.

> Although Viet Nam can mobilise domestic public financing and shift part of its domestic private savings toward its climate agenda, external resources will also be critical to meet its climate goals. Otherwise, the domestic financing effort might be detrimental to other social and economic needs, and negatively affect the country's quest to achieve high-income status by 2045. Beyond affordability, it is also a matter of common but differentiated responsibility as the country is to a large extent a victim of damages caused by the greenhouse gas emissions already generated by other countries.[30]

In **South Africa**, the largest trade union federation has recognised the need for both climate mitigation and socioeconomic safeguards. The Congress of South African Trade Unions first highlighted the importance of a just transition to "protect the most vulnerable from the effects of climate change" and later explicitly called for "mitigating transition impacts on working class groups, including workers, communities and small businesses".[31]

2.2. Procedural justice: Agency and accountability

Procedural justice "ensures that the needs and priorities of the groups who are the most affected are properly captured",[32] through "due process, good governance and the rule of law at different levels with regard to energy projects, energy systems and their transition".[33]

Justice is not only about how benefits and burdens are distributed, but also about the decision-making process on energy transitions. Those who are negatively affected are not always visible or able to advocate on the transition. They can include low- and middle-income households, rural communities, women, young people and workers in different industries, as well as Indigenous peoples and other vulnerable and politically underrepresented communities.

Environmental and social impact assessments, consultations – or lack thereof – and subsequent discontent and legal filings against large-scale projects highlight the difficulty for project developers, financing institutions and policymakers to identify and fully include everyone affected by large-scale energy projects in the planning and development process – whether for “clean” energy or otherwise.[34]

Such cases also highlight the very real risk for all parties involved in transition-related, large-scale infrastructure development if community involvement and justice are not taken seriously (Ibid). Legal filings after a project begins are typically costly, while the lack of agency leaves people exposed to devastating effects.[35]

Procedural justice emphasises the importance of meaningful participation and consultation, full information disclosure by governments and industry, and appropriate engagement and redress mechanisms at both the national and international level. Fundamentally, this involves free, prior and informed consent (FPIC), but in practical terms, this requires wide national and community-level participation in designing the energy transition. Thus, deliberately inclusive planning and implementation are central to the concept of just transition.[36]

For a transition to be “just”, affected communities need agency. Governments and funding bodies need the capacity to identify and engage vulnerable groups. Furthermore, effective mechanisms must exist to hold governments, businesses and institutions accountable for decisions ultimately made on behalf of those communities.

“Just Transition is a principle, a process and a practice.”

Climate Justice Alliance, n.d.

2.3. Recognition and restorative justice: Transformational change

Recognition justice "focuses on the protection and recognition of rights and identities of different groups in society, especially vulnerable and historically marginalised groups, such as Indigenous Peoples. It also includes emerging notions and recognition of the rights of nature and non-anthropocentric entities".[37]

Restorative justice "stresses the need to support victims of damaging activities and restore them to their original position. In the context of the energy transition, it includes restoration from past and present damages associated with fossil fuels and other energy forms, and restorative mechanisms as a key pillar of new energy projects and systems. Specific aspects include responsible decommissioning and livelihood restoration plans".[38]

The global energy transition is about a deep and fundamental restructuring of systems that have in the past led to unsustainable development that transgresses all planetary boundaries and that has led to deep inequalities.[39] A just transition does not simply replace one energy system with another. Rather, it recognises past mistakes that led to energy systems that do not serve people and the planet in the long-term.

Calls for just transitions are linked to other critical debates: about the relentless overexploitation of our planet's finite resources; prioritising profits over the environment, and thus, people; about the marginalisation of advocates for human rights, land and the environment in the face of large-scale energy and infrastructure development; about unfair trade relationships between countries and regions; the lack of dignified jobs; and the overall inability of current systems to create shared prosperity.[40]

Recognition justice focuses on protecting rights, for both communities and the environment, in the context of the transition. Restorative justice, on the other hand, emphasises compensation and justice for those who have experienced injustice in the past or may experience injustice in the future. Either way, a just transition focuses on people and how current decisions affect them.

Many proponents of the energy transition highlight technologies as the primary solution, supposedly a "win-win" for people, the planet and prosperity,[41] while others note the danger of reinforcing an existing approach to energy and the economy that – like fossil fuel industries – seeks to carve out an attractive business case from the transition.[42] According to the latter perspective, a genuine transformation requires much more than a change of technology. It must also include a rethinking of our economic model of perpetual growth, which fuels parallel ecological and environmental crises.[43]

Indigenous peoples and the energy transition

Indigenous peoples have been extensively affected by industrial and infrastructure expansion, environmental destruction and land dispossession, including in the case of renewable energy deployment, the exploitation of transition minerals and even conservation projects.[44] Indigenous-managed lands constitute over a quarter of the world's land masses and 40% of protected areas globally, accounting for a large portion of commercially undeveloped land to date.[45]

For many Indigenous communities, land is not just a resource, but a foundational element of cultural identity, spirituality, and social structure. Energy projects that fail to respect Indigenous land possession and rights can disrupt those connections, causing cultural harm that cannot be measured in economic terms.[46] Energy transition projects must recognise such cultural elements and apply the principle of free, prior and informed consent (FPIC) to avoid repeating historical injustices.[47]

Other proponents of just transitions point out the need to uphold human rights across the energy supply chains, from mining and bioenergy production to power plant construction and operation, whether fossil, nuclear or renewables-based, as well as equipment manufacturing, waste management and decommissioning.[48]

There is no simple answer on what a just transition truly entails. What seems clear, however, is that fair allocation of benefits, restoration for damages and the enforcement of existing laws all depend on recognising rights, identities and evolving needs that might be affected by energy decisions.[49]

Together, these elements relate to recognition justice and restorative justice, which seek to redress and repair systemic harms to both people and ecosystems, whether due to current energy systems or anticipated changes.

Recognition and restorative justice in South Africa

South Africa's just transition framework, published by the Presidential Climate Commission, addresses recognition and restorative justice explicitly, saying this approach:

> ...supports South Africa's broader efforts to redesign the economy to the benefit of most citizens to enable deep, just and transformational shifts (...) Historical damages against individuals, communities and the environment must be addressed, with a particular focus on rectifying or ameliorating the situations of harmed or disenfranchised communities. It is about redress: healing people and the land, which was an immediate need echoed by all communities that the [Presidential Climate Committee] has consulted with.[50]

[...]

> Workers, communities and small businesses must be empowered and supported in the transition, with them defining their own development and livelihoods. It is about embracing the sentiment: 'nothing about us without us!' [51]

"Workers, communities, and small businesses must be empowered and supported in the transition, with them defining their own development and livelihoods. It is about embracing the sentiment, "nothing about us without us!"

Presidential Climate Commission, South Africa

"The green economy cannot be built on the same extractive, exploitative systems that created the climate crisis. A Just Transition requires a transformation, not just a transition."

3 Transition finance and the case of Just Energy Transition Partnerships

Transparency is critical to the use of JETP and other climate funds for the larger benefit of societies. JETP finance is no different from other project finance, in that it can be affected by lack of transparency,

Climate and transition finance are critical to accelerate energy transitions in developing countries. This section explores in more detail why transition finance matters for just transitions. It then further examines JETPs as a transition finance mechanism and whether they fulfil their goal.

3.1. The importance of transition finance for just transitions

Many countries – especially developing ones – struggle with mobilising finance for decarbonisation. Phasing out and replacing of fossil-based power generation, upgrading transmission and distribution networks and widening electrification entail massive infrastructure investments with steep upfront costs. So does the task of decarbonising multiple industries, not to mention reskilling labour and providing a social safety net. These goals require financing well beyond the means of many governments or private investors.

In addition, developing countries may need support to implement legal and regulatory frameworks to adequately address human and environmental impacts. In many cases, governments need to consult with local communities – particularly Indigenous peoples – to avoid repeating past injustices like land dispossession, forced relocation and the destruction of ancestral lands in the name of climate action.[52]

Developing countries have financial needs for climate action and decarbonisation; the UNFCCC Standing Committee on Finance, looking at 98 countries, puts their financing needs until 2030 between USD 5 trillion and USD 6.9 trillion – or between USD 455 billion and USD 584 billion per year.[53] The Sixth Assessment Report from the Intergovernmental Panel on Climate Change (IPCC) estimated that developing countries needed between USD 1.4 trillion and USD 2.7 trillion per year in financing for mitigation alone between 2020 and 2030.[54]

The sheer size of these estimates, which do not include adaptation costs or loss and damage, shows the enormous challenge faced by developing countries, many of which are already highly indebted. Limited financial resources, coupled with parallel development needs to fight poverty and hunger and ensure access for all to basic education and healthcare, result in a dilemma sometimes summed up as a choice between climate action and development.[55]

For all these reasons, transition finance is critical for developing countries to restructure their energy systems, as well as for those transitions to be just.

3.2. Types of transition finance for developing countries

Various tools and mechanisms are available to financially support developing countries in their climate action more broadly, including with transition finance.

Major climate finance mechanisms include:

- The 2009 pledge by developed nations to provide **USD 100 billion** per year in climate finance to developing nations by 2020, later extended to 2025;[56]
- The N**ew Collective Quantified Goal (NCQG)** finalised at COP29 in Baku at the end of 2024, which aims to triple finance to developing countries to USD 300 billion annually by 2035;
- The **Adaptation Fund**, established in 2001 – though it deals with addressing climate impacts already happening and excludes prior mitigation;
- The **Least Developed Countries Fund (LDCF)**, established by the UNFCCC in 2001 and placed under the Global Environmental Facility (GEF), co-founded by the United Nations Environment Programme, the United Nations Development Programme and the World Bank; and
- The **Green Climate Fund (GCF)**, established at COP16 in 2010 as the financial operating entity of the UNFCCC, following the GEF.[57]

In 2023, COP28 delegations agreed on creating a separate **Loss and Damage Fund** to help developing countries, who are proportionally less responsible for emissions and hit harder by climate impacts, deal with the increasing effects of climate change.[58]

JETPs are a parallel, recent development aimed at providing additional finance to specific developing countries undertaking the transition away from high-emitting fossil fuels, particularly coal. These partnerships, formed to support specific countries during successive rounds of climate talks, bring together governments, funds, private finance and development finance institutions (DFIs) to finance transition projects in each recipient country.

The remainder of this section discusses JETPs in more detail.

3.3. JETPs in theory and practice

JETPs are a financial basket tool established on a bilateral basis by finance-providing governments and institutions with each recipient country that commits to the transition. The first JETP model was announced at COP26 in Glasgow in 2021, bringing together France, Germany, the United Kingdom, the United States and the European Union in a transition partnership with **South Africa**.

The financing partners pledged to provide USD 8.5 billion for South Africa to reduce coal-related emissions and strengthen its clean energy infrastructure. At the following year's G20 Summit in Bali, a group of partners pledged USD 20 billion under a separate JETP for **Indonesia**. That was soon followed by a USD 15.5 billion JETP with **Viet Nam** in December 2022 and a EUR 2.5 billion (USD 2.7 billion) JETP with **Senegal** in June 2023 (Table 1).

JETPs are underscored by multi-billion-dollar financial commitments by the International Partners Group (IPG), comprising the governments of Canada, Denmark, France, Germany, Italy, Japan, Norway, the United Kingdom and the United States, along with the European Union and other non-state partners. Another notable partner is the Glasgow Financial Alliance for Net Zero (GFANZ), which includes financial institutions, insurers, asset owners, asset managers financial service providers and investment consultants.[59]

Table 1. JETP financial commitements by International Partners Group

Beneficiary country	Public IPG (billion USD)	Private funds	Donors	Timeline
South Africa	8.5	81% loans and garantees	UK (lead), EU, France, Germany, USA	2023-2027
Indonesia	10	10 bn	US, Japan (leads), Canada, Denmark, EU, France, Germany, Italy, Norway UK, and GFANZ	2023-2028
Viet Nam	7.75	7.75 bn	UK, EU (leads), Canada Denmark, France, Germany, Italy, Japan, Norway, US, and GFANZ.	2023-2029
Senegal	2.7		EU(lead), Canada, France, Germany, UK	2023-2030

Notes: GFANZ Private sector finance.

For **South Africa**, **Indonesia** and **Viet Nam**, the focus is clearly on the transition away from coal.

South Africa's JETP sets concrete expectations for the stipulated coal phase-out to prevent between 1 gigatonne and 1.5 gigatonnes of emissions over the next 20 years. More broadly, the partnership aimed to enable South Africa to "move away from coal and to accelerate its transition to a low emission, climate-resilient economy".[60]

JETPs bundle new and existing transition-related finance initiatives by different financiers to a single developing country under a shared umbrella. This bundling creates a highly visible stream of as-ambitious-as-possible finance for the country's energy transition, potentially with more impact than the sum of the various commitments.

This, in turn, gives developing countries added incentives to plan ahead, using the newly available finance package more strategically than individual ad hoc projects. JETP partners South Africa, Indonesia and Viet Nam have all drawn up JETP-based transition plans, strengthening their own decarbonisation strategies.

Additionally, the visibility of JETPs may incentivise those offering finance to step up their contributions. JETPs establish a channel for partnership and, ideally, feed into more ambitious roadmaps for decarbonisation in partner developing countries.

Viet Nam, for instance, produced a 200-page resource mobilisation plan (a year into its JETP), which lists possible uses of JETP funds. Those include 400 possible projects and a catalogue of categories to which funds could be allocated, ranging from transmission and distribution infrastructure to energy efficiency and a regulatory framework for the transition in power stations.[61]

• Size and ambition

JETPs are one of many financing tools and mechanisms for decarbonisation in developing countries. While they help raise ambitions, they are not intended as a single solution for all climate finance needs. Realistically, a JETP can only cover a fraction of the partner country's realistic transition requirements.

Box 1 (below) shows the magnitude of the challenge faced by current JETP countries in decarbonising their energy systems, combined with the parallel challenge of closing gaps in access to modern energy, as well as assuring affordability for electricity and clean cooking.

JETPs boosting ambitions

South Africa's JETP aims to accelerate the decarbonisation and help the country achieve ambitious reduction of emissions as set out in its updated Nationally Determined Contribution (NDC) under the Paris Agreement.[62]

Indonesia's JETP aims to support the country "in an ambitious and just energy transition" consistent with Paris Agreement goals and helping keep the "1.5 °C global warming limit within reach". The partnership agreement calls for an accelerated emissions reduction, with a pathway to net zero by 2050, a strategy for renewable energy expansion, the phase-down of coal-fired power generation both on- and off-grid, and further commitments or regulatory reform and energy efficiency.[63]

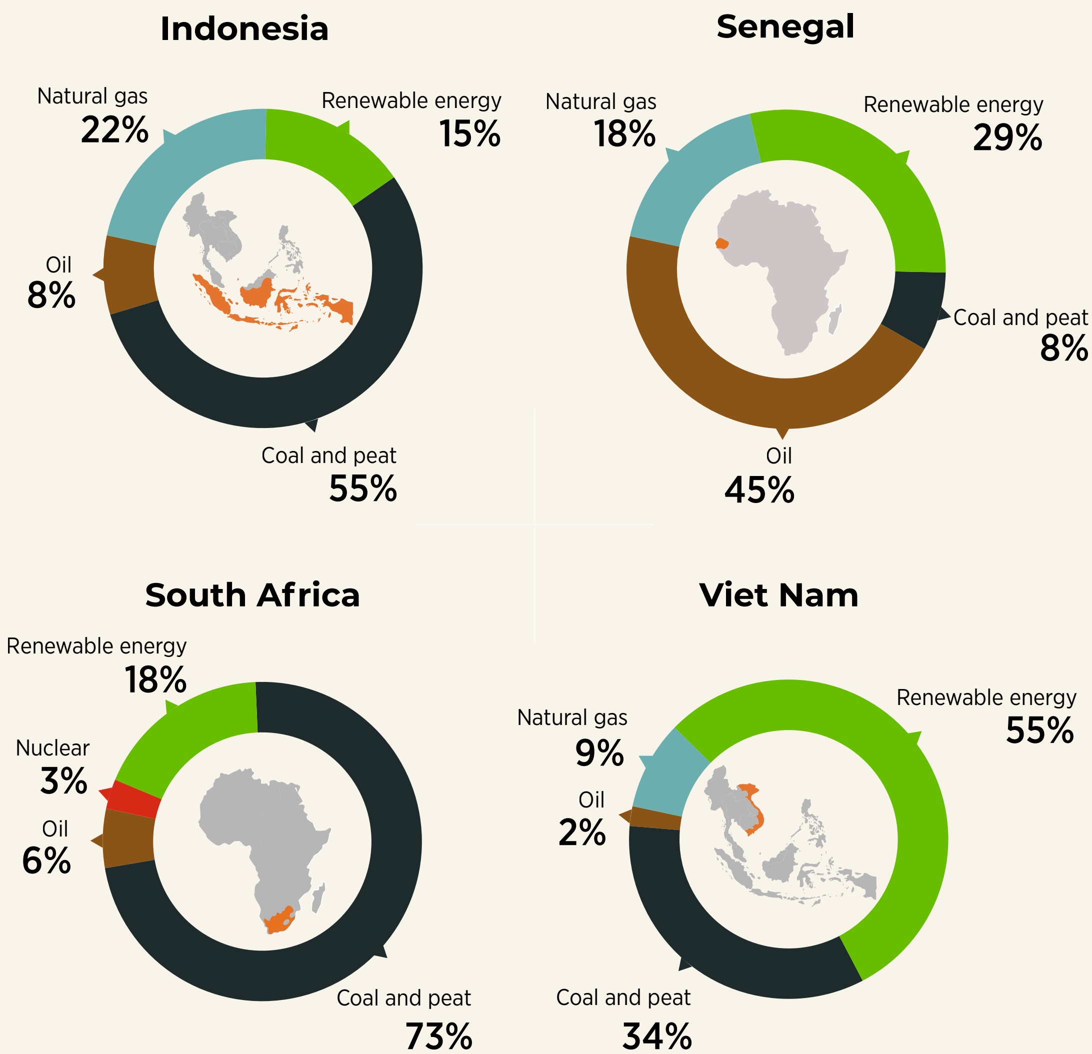
Box 1. The scale of the challenge

A closer look at the electricity mix in the four current JETP countries highlights the scale of the challenge of decarbonisation in their power sectors – without even considering other important sectors, such as industry and transport. The share of renewable energy in the electricity generation mix ranges from 15% in Indonesia to 56% in Viet Nam.

Three of the countries (Indonesia, South Africa and Viet Nam) have large electricity markets, generating comparable amounts to developed countries such as the UK, Italy or Australia. They do so to supply electricity to populations ranging from 60 million in South Africa to over 278 million in Indonesia.[64] In all three cases, coal accounts for between a third and close to 80% of electricity generation capacity (Figure 1).

For the same three countries, hydropower is an important renewable energy source, largely due to legacy development in previous decades. By contrast, modern renewable energy technologies such as solar and wind power have only slowly entered the market. Despite significant progress, particularly in South Africa, renewables continue to account for only a small share of power generation capacity, following decades of investment in fossil fuels.

Figure 1. Electricity generation capacity in the four JETP countries by share of technology (%), 2023



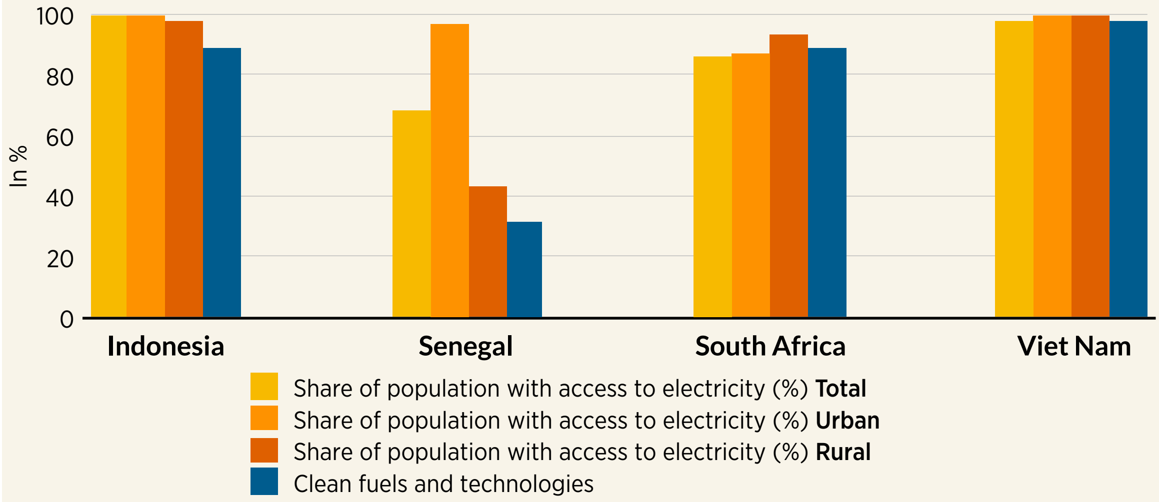
Source: IRENA (2024)[65]

Senegal differs from the three other JETP countries in the size of its energy and electricity market, as well as the more limited role played by coal – although fossil fuels overall contribute over 70% of the country's electricity mix. Senegal's electricity system is comparatively small, at 1,537 MW generation capacity in 2023, around 50 times less than South Africa, third in the group at over 62,000 MW.[66]

Electricity access stood at 68% for Senegal's total population of around 18 million in 2022, leaving over 5.5 million people without electricity access.[67] By contrast, Indonesia and Viet Nam have achieved universal access to electricity, while South Africa maintains an access deficit of around 14%. All four countries face large gaps in access to clean cooking (Figure 2).

While Senegal's electricity system is significantly smaller than those of other JETP countries, it still needs to expand generation capacity to serve its entire population. While sustainable off-grid solutions can provide electricity in remote locations, the scale-up challenge facing the country is enormous.

Figure 2. Access to electricity and Clean cooking fuels and technology in JETP countries (%), 2022



Notes: Clean fuels and technologies are defined in accordance with World Health Organization guidelines for indoor air quality in relation to household fuel combustion, allowing for the use of electricity, biogas, natural gas, liquified petroleum gas (LPG), solar or alcohol fuels for cooking.[68]

Source: IEA *et al.* (2024)

Viet Nam currently has 25 coal power plants operating, with none retired since 2000 (the starting period for Global Energy Monitor data). It also has four new coal power plants under construction and another two in the "pre-permitted" phase,[69] despite parallel efforts under its JETP to phase out coal. The country's Power Development Plan of May 2023 aims to double the country's electricity generation capacity by 2030 relative to 2020 to supply a population of 100 million, with investment needs for power plants and grid infrastructure estimated at USD134.7 billion.[70]

The World Bank in 2022 separately estimated Viet Nam's financing needs for a net-zero development pathway, which includes both mitigation and adaptation, at about 6.8% of GDP per year, or a cumulative USD 368 billion through 2040. Investments in resilience alone would cost around USD 254 billion from 2022 to 2040 to enable adaptation to past and future climate change. Decarbonisation to meet international commitments would take another USD 114 billion through 2040, including USD 81 billion in investments and USD 33 billion for social programmes.[71]

Indonesia's NDC commits the country to reducing emissions by 1,953 million tonnes of carbon dioxide equivalent (Mt CO_2eq) by 2030, more than 80% of which is conditional on financial support.[72] Indonesia had 90 coal power plants operating as of July 2024, with 16 under construction, and four in the pre-permit phase.[73] Indonesia has succeeded in leveraging its JETP to attract the private sector, blending financing from a large group of traditional and new funding partners as part of its JETP.

For **South Africa**, even the lower end of its NDC target – 350-420 Mt CO_2eq by 2030 – is entirely conditional on available financing. JETP commitments to date represent around 10% of the USD 80 billion required under the government's Just Energy Transition Investment Plan, or JET-IP.[74] South Africa had 18 coal power plants operating as of July 2024, with one under construction and three in the pre-construction phase.[75]

The World Bank separately estimated South Africa's financing needs for "interconnected resilient, low-carbon and just transitions" at 4.4% of gross domestic product per year, or ZAR 8.5 trillion (around USD 520 billion) in net 2022 value, through 2050, including ZAR 2.4 trillion (around USD 150 billion) before 2030. The Bank suggests that about 49% of this amount is needed for investment in low-carbon energy and related sectors, in particular power and transport, while another 28% would support the resilience of cities and the water, agriculture and transport sectors, with the remaining around 23% to ensure a just transition.[76]

• Social aspects

Alongside commercial and technical aspects, JETPs focus on wider social justice as a critical enabler of the energy transition. Thus, they accelerate the transition while also ensuring it is just. This is key to address many concerns of developing countries, which face limited access to finance as well as the need to protect vulnerable groups and industries from transition-related hardship.

The stated ambitions of JETPs reflect this aspect, as shown in the box below.

Social ambitions in JETPs

Indonesia's JETP statement highlights the need for adequate risk mitigation:

> recognising the importance of environmental, social and governance standards as a consideration for developing transition financial frameworks and the existing gap between current standards and energy transition needs.[77]

It also notes the likely impact of the rapid transition away from coal specifically on vulnerable populations, by recognising:

> … the importance of a just energy transition that brings about opportunities for industrial innovation to create quality green jobs, and considers all communities and societal groups affected directly or indirectly by an expedited reduction of power sector emissions – through early retirement of coal-fired power plants – including women, youth and others vulnerable to the transition; and that there are several important sectors of Indonesia's economy that are impacted by such a transition.[78]

Yet JETPs also exemplify the difficulty of translating these social ambitions into practice. GFANZ, the group of financing institutions that provide over half of pledged finance under most JETPs, defines transition finance in corporate terms, focusing on "entities" as well as activities as recipients of finance (Box 2).

Box 2. How GFANZ defines transition finance

The Glasgow Financial Alliance for Net Zero describes transition finance as follows: "Investment, financing, insurance and related products and services that are necessary to support an orderly, real-economy transition to net zero as described by the four key financing strategies that finance or enable 1) entities and activities that develop and scale climate solutions; 2) entities that are already aligned to a 1.5°C pathway; 3) entities committed to transitioning in line with 1.5°C-aligned pathways; or 4) the accelerated, managed phase-out of high-emitting physical assets." [79]

Table 2. Key GFANZ financing strategies

Area of activity	Details
Enabling entities and activities that develop and scale climate solutions	Encourages the expansion of low-emitting technologies and services, including nature-based solutions, to replace high-emitting technologies or services, remove greenhouse gases from the atmosphere, or otherwise accelerate the net-zero transition in a just manner.
Enabling entities that are already aligned to a 1.5 degrees C pathway	Supports climate leaders and signals that the financial sector is seeking transition alignment behaviour from the real-economy companies with which it does business.
Enabling entities committed to transitioning in line with 1.5 degrees C-aligned pathways	Supports both high-emitting and low-emitting firms that have robust net-zero transition plans, set targets aligned to sectoral pathways, and implement changes in their business to deliver on their net- zero targets.
Enabling the accelerated managed phaseout (*e.g.,* via early retirement) of high-emitting physical assets.	Facilitates significant emissions reduction by the identification and planned early retirement of assets while managing critical issues of service continuity and community interests.

Source: GFANZ (2022)[80]

The share of JETP finance going explicitly into social justice currently remains small relative to infrastructure projects; in **South Africa**'s JET-IP, jobs and skills development account for only 0.17% of the total amount.[81] Similarly, **Indonesia**'s Comprehensive Investment and Policy Plan allocates only USD 28.8 million, or 0.25% of total IPG funding to just transition components.[82]

The South African government has suggested USD 21.3 billion for capacity building at the municipal level and only USD 180,000 million for skills development programmes, out of the nearly USD 100 billion total estimated for the country's transition away from coal (Table 2). Municipalities in South Africa are electricity distributors and thus form an essential part of the country' energy transition.

Table 3. South Africa's JET-IP funding requirements, 2023-2027

JET IP funding requirements, 2023-2027	ZAR billion	USD billion
Electricity sector	711.4	47.2
New Energy Vehicle sector	128.1	8.5
Green Hydrogen sector	319	21.2
Skills development	2.7	0.18
Municipal capacity	319.1	21.3
Total	1480.3	98.38

Source: The Presidency - Republic of South Africa (2023)[83]

GFANZ and the government-led IPG have together committed around USD 22 million in grant-based technical assistance to create the social and economic conditions for a just transition in **Viet Nam**.[84] The promised support includes technical and vocational training as well as the German-funded Innovation Regions for a Just Energy Transition programme, which focuses on social dialogue and stakeholder engagement, impact studies, transformational measures and policy change.[85] The expected inflow of finance, although substantial, is clearly far from enough to ensure a just transition as Viet Nam phases out coal, not to mention the country's wide-ranging transition needs.

In some cases, transition finance can produce results that seem to contradict social justice. This is an inherent risk that JETP agreements attempt to offset.

In **Indonesia**, for instance, green financing has in the past been channelled into deforestation in the service of the biomass industry and "low-carbon" energy production from wood.[86] Collateral consequences included clearing Indigenous peoples from the forest and their subsequent loss of land, habitat and traditional sources of food (Ibid). Originally meant to go ahead during the 2010s, the plan stalled due to lack of financing, until the inflow of "green" finance for Indonesia's low-carbon energy drive reinvigorated it, resulting in new deforestation with a negative environmental and human rights impact.[87]

● Blending new and existing finance

JETPs consist of a blend of finance from different sources, and with different conditions attached. Some finance was committed prior to the establishment of current JETPs and subsequently incorporated under their umbrella, while other financial commitments resulted from the JETP negotiation process.[88]

Most existing JETP financing consists of loans, a large portion of which are commercial. For developing countries, this is somewhat disappointing, given the comparatively high cost of commercial loans, especially once currency-related costs are taken into consideration. Questions also arise about adding debt from commercial loans to already highly indebted countries.

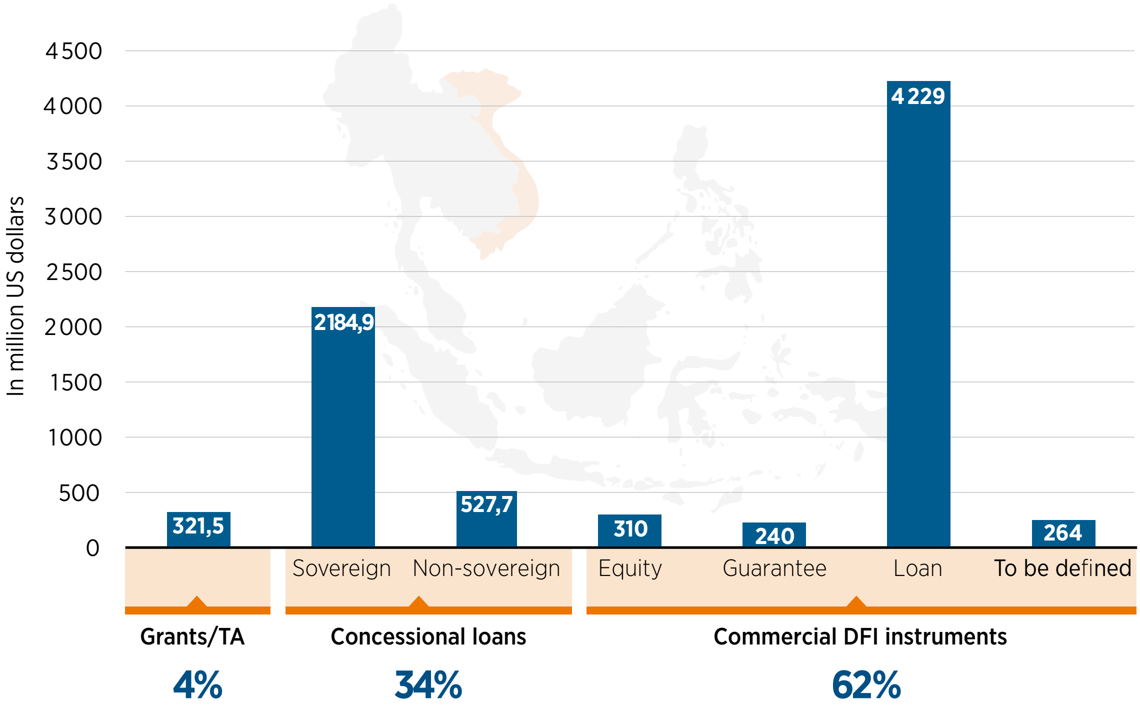
Grants account for only 4% of **South Africa**'s JETP package, while about 15% consists of guarantees by multilateral development banks and the rest, some 81%, of loans.[89] Public funding for JETPs also comes in the form of technical assistance and equity investment. Private financing mostly comes as commercial lending, whether through corporate or project finance schemes or as equity or quasi-equity investments, as evident in Indonesia.[90]

A bucket of blended finance, including risk mitigation instruments, could help South Africa obtain more funds for transition-related projects. Still, commercial and sometimes even concessional loans can be expensive for the country given currency transaction costs and other social interests competing for debt-based finance.[91]

In the cases of both **Indonesia** and **Viet Nam**, half of the total funds come via private finance at market rates.[92] For Viet Nam, furthermore, 62% of the public funds in the JETP consist of commercial instruments from DFIs, including equity, guarantees and (in most cases) more commercial loans (Figure 3).

Concessional loans make up about one third of the public funding under Viet Nam's JETP, or less than one sixth of total JETP funding. Grants account for only 4% of the public funds, or 2% of total JETP finance. Thus, even with public funding alone, commercial lending dominates the finance mix offered to Viet Nam.

Figure 3. JETP funds for Viet Nam



Source: Larasati (2024)[93]

• Conditionality

A large part of the finance offered under JETPs comes with added conditionalities. This is a frequent feature of transition finance, often demanded by the providers and criticised by countries seeking the finance. Developing countries often point to their limited scope for prioritising projects beyond what donors and financing institutions will cover.[94]

Grants to **Viet Nam** under the public chapter of JETP funding, for example, have tended to support existing projects. France, for instance, has offered EUR 500 million (approximately USD 525 million), of which USD 523.7 million comes as a non-sovereign concessional loan and only USD 1.3 million in grants. Almost half of those grants, some USD 600,000, are intended for a research programme "to inform public policies on net-zero strategies and adaptation to climate change" [95](p.100).

Germany has offered a total of USD 62.7 million in grants under Viet Nam's JETP, in addition to USD 399 million in concessional loans and USD 210 in commercial DFI instruments. The German grants span wider project themes, ranging from "Promoting the Transition of the Energy Sector in Viet Nam" to "Support to Viet Nam for the Implementation of the Paris Agreement II".[96]

The private finance offered to **Viet Nam** also includes conditions for regulatory and policy reform, on top of standard commercial terms.

Since the time funds were committed to Viet Nam and other JETP countries, GFANZ has established a working group of financial institutions to support net-zero initiatives, with the declared aim of identifying barriers in sourcing private investment, advocating for reforms to address those barriers and identifying ways to help crowd in private finance at scale.[97]

As GFANZ explains:

> The commitment is subject to the involved governments and partners working closely with GFANZ and the private sector to ensure (i) continued progress in improvements to the local and international policy and enabling environment; (ii) the availability and deployment of catalytic public finance, including in structures and forms that can be used to appropriately de-risk and crowd in private finance; and (iii) a robust pipeline of competitively tendered projects that are demonstrably consistent with the JETP's ambitious transition pathway.

These caveats have drawn criticism, with one observer noting:

> Resources are needed for climate action. It has taken years to get to a funding deal like JETP that considers both climate and social needs. However, the red flags in the deal and the process could undermine the justice of the transition. The danger is leaving recipient countries... worse-off, considering the debt implications and hollowing out national sovereignty. [98]

The bulk of commercial loans and DFI finance under JETPs – as under other forms of transition finance – continue to link substantial shares of climate and transition finance to bankable projects. This limits the opportunity for developing country governments to allocate funds to social impact mitigation, such as proactive job training, (re-)skilling and broader programmes that support the stated goals of JETP financial commitments.

JETP agreements typically ask for more effective regulation, as well as of mitigation of reform impacts on vulnerable communities, without financing these elements adequately. Funding commitments are also lacking for wider socioeconomic and environmental mitigation of the transition, such as environmental protection, clean-up after closing down industries and mining operations, and direct work with remote populations, Indigenous peoples and local communities.

4 Conclusions

What specific institutional frameworks and governance structures have worked best for JETP implementation?

What licensing and permitting frameworks work best for JETP projects?

This brief has explored the need for a just and equitable energy transition, taking into account a range of definitions for "justice" in the context of energy transitions in developed or developing countries. It then considered how transition finance can contribute toward this aim, with a close examination of JETP experiences in three "early adopter" countries: South Africa, Indonesia and Viet Nam, and the most recent JETP partner Senegal.

Based on these case studies, the next section analyses JETPs and key requirements for their success. This analysis may help both prospective financiers and developing country governments reach a more informed understanding of JETPs as a cooperation mechanism and source of finance to ensure energy transitions happen in a just way.

4.1. The need for country-owned transition finance

No single financing mechanism can fully meet the needs of developing countries or put the global energy transition on track. However, this does not mean initiatives like the JETP are failures. Rather, the divergence between available funding and intended outcomes that is evident in JETPs to date underscores the importance of visible, high-level political cooperation, which could be significantly more ambitious than it is today.

This ambition must be mutual. Financial partners must consider both the scale of the challenge and whether the funding they provide truly meets the needs of developing countries in a fair and practical way. Currently, development finance is largely shaped by donor priorities and projects that attract commercial investment, rather than by the actual needs of recipient countries.[99]

Effective transition finance could evolve to make more space for country-driven priorities. A more country-driven approach could reinforce JETPs as true partnerships, rather than simply a basket label for project finance; to be "country-owned" to "live up to the expectations of an innovative funding mechanism".[100]

One way for future partnerships to achieve this would be by pooling finance into broad national transition plans, rather than narrowly focused, specified projects. Such plans could include a range of policies, incentives, regulations and provisions for social protection – areas that would not typically attract transition or other development funding. The benefit would be to give national and local governments more control over what is financed to implement their transition-related policies in a socially and environmentally just way.

Along with the level of finance available, the success of these financial partnerships depends largely on ambition. Transition finance works best when government, businesses and civil society within the country are all committed to the transition and are proactive in identifying needs, priorities, projects and key policies.

Such domestic cohesion on energy transitions requires more inward-focused policymaking than in the past. However, it holds the potential to transform JETPs and other transition finance into a tool for action, rather than a distraction from low political will.

4.2. Transparency, accountability and the public

Transition finance does not automatically ensure socioeconomic justice, with or without the label "just". This applies to JETPs as well as other forms of transition finance.

There are several critical questions to consider. Are developed countries and the industries that have benefited most from fossil fuels doing enough to facilitate global change? Are they taking the right approach by offering developing countries primarily commercial, debt-based financing for decarbonisation? And is transition finance in developing countries truly being used to support just and equitable causes?

These concerns mirror the significant gaps between what is needed, what is promised and what is being delivered.

Transparency is essential to ensure that JETPs and other climate funds genuinely benefit societies. Like other forms of project finance, JETP funding can be undermined by a lack of transparency, conflicting interests and "elite capture", whereby powerful groups divert funds for their own purposes rather than advance real solutions.[101] Additionally, political repression of climate and environmental activists remains a serious issue in many countries, yet climate finance has done little to address this concern or provide safeguards.[102] Here, there is much potential for climate finance to take a greater stance on ethics, as opposed to simply financing profit-making business.

Accountability is equally important for financing institutions and governments. Commercial loans, in particular, carry the risk of turning transition finance into a profit-driven business rather than a tool for meaningful change – similar to past cases where climate finance was used to fund environmentally harmful activities like deforestation.[103] JETPs are not immune to such risks. The terms of lending must be adjusted to uphold agreed-upon social and environmental standards so that transition finance truly supports a just transition.

To build trust, transition finance mechanisms and the institutions managing them must commit to transparency and accountability. This includes clear data and information sharing, both with the global public and with citizens in recipient countries. While some may see this as an added layer of conditionality, finance meant to promote justice must, by definition, be held to higher standards than finance aimed at investor profit. Currently, there is no globally agreed ethical framework for transition finance or for the countries receiving it. Developing such a framework at the international level – one that also addresses issues like greenwashing – could help protect the credibility of transition finance and ensure it truly serves its intended purpose.

4.3. Human rights principles as part of transition finance

Energy transitions can only be just if they respect the rights of people, including those who have historically often been marginalised, such as Indigenous peoples, rural communities, low-income households and other local communities. A national energy transition can entail major and immediate consequences for these people, as developing new energy sources requires land as well as access to transition-linked raw materials.

Like with any industry in the past, the expansion of transition-linked industries, energy technologies and related infrastructure will directly affect certain communities, often with a disproportionate impact on vulnerable groups. Yet those people and communities, like everyone else, possess fundamental rights enshrined in international law, notably human rights. This, too, must be considered a key condition in financing projects under the "just transition" label.

Human rights remain a difficult subject in many countries, as economic transitions can exacerbate social tensions and threaten entrenched interests. All this is in addition to the value many local communities and, in particular, Indigenous peoples can bring to the sustainable management of land and water resources that dates back millennia.

Transition finance could incentivise recipient countries to revise their legal and regulatory frameworks, as well as give visibility to domestic issues beyond the bankability of projects and the volume of emissions avoided by such transition projects. But to ensure people's rights are respected, the financing institutions and foreign governments backing projects in developing countries, as well as private investors utilising transition finance, must proactively conduct due diligence, assess environmental and social impact, and provide transparent monitoring and grievance mechanisms.

Project design and finance could specifically incorporate clear standards that protect Indigenous land rights, specifically safeguarding territories from exploitation or reallocation without local community consent. In addition, more funding could be dedicated to Indigenous-led resource management projects that uphold traditional practices and simultaneously emphasise sustainable land and energy use. Currently, Indigenous peoples receive only a negligible fraction of available climate finance.

Clearly, many transition projects hold the promise of generating vast benefits for communities and the planet, yet are unlikely to be bankable – which highlights the need for far more transition finance for communities, provided as grants or via microloans, rather than large-scale commercial or concessional loans traditionally associated with central governments and corporate businesses.

Transition finance could also contribute to a rights-based, and thus just, transition by coupling finance to credible commitments on human rights protection. This is a complex and sensitive subject, linked to such issues legal rights of protest and dissent, media oversight, the recognition and implementation of the Indigenous and Tribal Peoples Convention[104] and the United Nations Declaration on the Rights of Indigenous Peoples, as well as to transparency and accountability in situations requiring free, prior and informed consent.

Transition finance mechanisms could strengthen ongoing work on such issues, similarly to the way the Article 6.4 Supervisory Body, responsible for creating the UN carbon market under the Paris Agreement, did in adopting standards and methodologies and greenhouse gas removals.[105] The idea is to ensure that just transition finance does not encroach on human rights. Establishing working groups with local governments, trade unions, associations of micro-and small enterprises, local communities and other affected segments of society, as was done in South Africa's Just Transition-related planning, could be an important step toward this goal.[106]

4.4. Future areas of work on JETPs

This brief cannot cover every aspect of JETPs or capture all the lessons from current experience in depth. However, future research could explore additional questions that would be relevant to the broader climate finance community. This final section outlines key questions for further investigation.[107]

Key topics related to JETPs include:

1. Financial architecture and risk management

- What specific financial instruments and structures work best for different types of JETP projects? Should it all be grants, or could other models provide a range of funding options?
- How should countries balance their sovereign debt concerns with JETP financing?
- What criteria used do private financiers use to evaluate JETP projects?
- Is private finance even compatible with a JETP?

2. Transition planning

- How should countries aim to sequence their policy and regulatory reforms in relation to JETPs?
- What institutional and governance structures have worked best in JETP implementation?

3. Regulatory frameworks

- Based on experience to date, what regulatory changes are needed to enable effective JETP implementation?
- Which licensing and permitting frameworks work best for JETP projects?

4. Strengthening capacity

- What does experience suggest about the specific technical and institutional capacity needed to implement JETPs?
- How can countries quickly acquire the necessary regulatory expertise?
- How can countries develop local technical expertise for project implementation?

5. Performance metrics and monitoring

- Based on experience to date, which metrics should be used to evaluate JETP success or otherwise?
- What has experience shown about how countries should track and report progress?
- What monitoring and verification systems are needed?
- How can countries ensure transparent implementation?

6. Co-ordination mechanisms

- How specifically should different government agencies co-ordinate on JETP implementation?
- What institutional structures work best for multi-stakeholder co-ordination?
- How can countries ensure effective co-ordination between national and local governments?
- Which mechanisms work best for donor co-ordination in a JETP?

7. Managing social impact

- What kinds of programmes work best for worker (re-)training?
- Where are there good examples of retraining for an energy transition?
- What mechanisms work best for community engagement?
- How should compensation or redressal schemes be structured?

8. Developing the project pipeline

- How can countries develop a robust pipeline of bankable JETP projects?
- What project preparation facilities are needed?
- How should projects be prioritised?
- What procurement mechanisms work best?

9. Engaging the private sector

- What specific incentives work best to attract private investment into JETP projects?
- How should public-private partnerships be structured?
- What are the best risk allocation frameworks that are compatible with just transitions?
- How can the local private sector, including micro-, small and medium-sized enterprises, be enhanced to support and sustain JETP projects?

10. Implementation timelines

- How should countries phase their transition activities?
- What timelines are realistic for different components of the transition?
- How can implementation delays be managed?
- Which critical activities may need special attention?

All these areas offer ample scope for future research, as well as for government and private sector planning to ensure a just and equitable energy transition in every country.

4.5. The way forward

Informed planning is a prerequisite for successful transitions in all countries. Developed and developing countries equally need to rally social and political support for the transition to low-carbon energy systems.

This makes the global energy transition both a challenge and an opportunity – a challenge, because it requires changing many of the ways we have been using and producing energy; and an opportunity, because better energy sources are available. So are the people and skills needed to reshape energy systems and economies everywhere.

Transition finance mechanisms like the JETP could help achieve a fair and just energy transition globally. We must unlock that potential.

Recommended reading

African Development Bank, 2023. A Just Transition to Address Climate Change in the African Context.

Agrawal, H., El-Katiri, L., Muiruri, K., Szoke-Burke, S., 2023. Enabling a Just Transition: Protecting Human Rights in Renewable Energy Projects. Columbia Center on Sustainable Investment, New York.

Anongos, A., Berezhkov, D., Boengkih, S.J., Cavanaugh-Bill, J., Martínez de Bringas, A., Goodland, R., Kirsch, S., Moody, R., Nettleton, G., Saro Pyagbara, L., Wyatt, B., 2012. Pitfalls and Pipelines: Indigenous Peoples and Extractive Industries.

Cahill, B., Ladislaw, S., Allen, M.M., 2020. Just Transition Concepts and Relevance for Climate Action.

Helmholtz Climate Initiative, 2022. How we observe planetary boundaries. URL https://helmholtz-klima.de/en/planetary-boundaries.

IEA, IRENA, UNSD, World Bank, WHO, 2024. Tracking SDG 7: The Energy Progress Report. https://trackingsdg7.esmap.org/downloads.

IISD, 2024. What Do Just Energy Transition Processes Look Like in Practice? Five case studies from Asia and South America. IISD. URL https://www.jetknowledge.org/insights/giz-what-do-just-energy-transition-processes-look-like-in-practice-five-case-studies-asia-south-america/.

Indigenous Summit, 2024. Indigenous Peoples Principles and Protocols for Just Transition. Just Transition Indigenous Summit. URL https://www.Indigenoussummit.org/summit-outcome.

IPCC, 2022. AR6 Climate Change 2021. Summary for All. https://www.ipcc.ch/report/ar6/wg1/downloads/outreach/IPCC_AR6_WGI_SummaryForAll.pdf.

Jenkins, K., McCauley, D., Heffron, R., Stephan, H., Rehner, R., 2016. Energy justice: A conceptual review. Energy Research & Social Science 11, 174–182. https://doi.org/10.1016/j.erss.2015.10.004.

Muñoz Cabré, M., Vega-Araújo, J., 2022. Considerations for a just and equitable energy transition. Stockholm Environment Institute.

Newell, P., Price, Daley, F., 2023. Landscapes of (In)justice: Reflecting on Voices, Spaces, and Alliances for Just Transition (IDS Working Paper 594). Institute of Development Studies, Brighton.

Schlosberg, D., 2007. Reconceiving Environmental Justice: Global Movements And Political Theories: Environmental Politics: Vol 13, No 3. Environmental Politics 13. https://doi.org/10.1080/0964401042000229025.

Tavares, M., 2022. A just green transition: concepts and practice so far. United Nations Department of Economic and Social Affairs (UN DESA), New York, NY.

United Nations Economic and Social Council, 2024. E/C.19/2024/4 International expert group meeting on the theme "Indigenous Peoples in a greening economy". Note by the Secretariat.

United Nations General Assembly, 2024. A/HRC/55/43 Business, planetary boundaries, and the right to a clean, healthy and sustainable environment Report of the Special Rapporteur on the issue of human rights obligations relating to the enjoyment of a safe, clean, healthy and sustainable environment, David R. Boyd. https://doi.org/10.1163/2210-7975_HRD-9970-2016149.

Wilton Park, 2022. Just Transitions Dialogue: Exploring the Need for International Rules Based on Local Realities.

References

350.org. *'Just Energy Transition Partnerships'*, 2024. https://350.org/jetp/.
African Commission's Working Group on Indigenous Populations/Communities. *'Extractive Industries, Land Rights and Indigenous Populations'/Communities' Rights. East, Central and Southern Africa.'* The African Commission on Human and Peoples's Rights/IWGIA, 2017.
African Development Bank. *'A Just Transition to Address Climate Change in the African Context'*, 2023. https://www.jetknowledge.org/knowledge/just-transition-address-climate-change-african-context/.

Agrawal, Hansika, Laura El-Katiri, Kimathi Muiruri, and Sam Szoke-Burke. *'Enabling a Just Transition: Protecting Human Rights in Renewable Energy Projects'*. New York: Columbia Center on Sustainable Investment, April 2023. https://ccsi.columbia.edu/content/enabling-just-transition-protecting-human-rights-renewable-energy-projects.

Anongos, Abigail, Dmitry Berezhkov, Sarimin J. Boengkih, Julie Cavanaugh-Bill, Asier Martínez de Bringas, Robert Goodland, Stuart Kirsch, *et al.* *'Pitfalls and Pipelines: Indigenous Peoples and Extractive Industries'*, 2012. https://www.iwgia.org/en/resources/publications/305-books/3089-pitfalls-and-pipelines-indigenous-peoples-and-extractive-industries-.

Business & Human Rights Resource Centre. *'Unjust Transition on Trial: Communities and Workers Litigate to Shape Corporate Practice'*. Business & Human Rights Resource Centre, 2024. https://www.business-humanrights.org/en/from-us/briefings/unjust-transition-on-trial-communities-and-workers-litigate-to-shape-corporate-practice/.

Cahill, Ben, Sarah Ladislaw, and Mary Margaret Allen. *'Just Transition Concepts and Relevance for Climate Action'*, 26 June 2020. https://www.csis.org/analysis/just-transition-concepts-and-relevance-climate-action.

Chu, Amanda, Myles McCormick, Justin Jacobs, and Derek Brower. *'BP Chief: Fossil Fuels Have Done "Enormous Good"'.* Financial Times, 11 May 2023, sec. Energy Source. https://www.ft.com/content/c87cc623-0fb2-4481-be1f-59afddd10684.

Climate Justice Alliance. *'Just Transition'*. Accessed 17 September 2024. https://climatejusticealliance.org/just-transition/.

Domínguez, Lara, and Colin Luoma. *'Decolonising Conservation Policy: How Colonial Land and Conservation Ideologies Persist and Perpetuate Indigenous Injustices at the Expense of the Environment'.* Land 9, no. 3 (2020): 65. https://doi.org/10.3390/land9030065.

Doyle, Cathal, and J. Gilbert. *'Indigenous Peoples and Globalization: From "development Aggression" to "Self-Determined Development"'*. Edited by European Centre for Minority Issues and The European Academy Bozen/Bolzano, 8:219–62. Leiden, Netherlands: Martinus Nijhoff, 2011. http://www.brill.com/european-yearbook-minority-issues-volume-8-2009.

Droubi, Sufyan, and Raphael J. Heffron. *'Politics'* Continued Erosion of Sustainable Development for Brazil's Indigenous Peoples'. Peripheries Journal, 2020. https://discovery.dundee.ac.uk/ws/files/50781306/Droubi_Heffron_2020_Erosion_of_Sustainable_Development_for_Indigenous_Peoples.pdf.

European Commission. *'Just Energy Transition Partnership with Indonesia'*. Text. European Commission - European Commission, 15 November 2022. https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6926.

European Commission. *Just Energy Transition Partnership with South Africa.* Text. European Commission - European Commission, 2021. https://ec.europa.eu/commission/presscorner/detail/cs/ip_21_5768.

Friends of the Earth International. *'Toolkit for Fighting False Solutions to the Climate Crisis',* 7 November 2023. https://www.foei.org/publication/toolkit-climate-false-solutions/.

Gabbatiss, Josh. *'Major Emitters "May Retain or Expand" Fossil Fuels despite Net-Zero Plans'***.** Carbon Brief, 9 May 2024. https://www.carbonbrief.org/major-emitters-may-retain-or-expand-fossil-fuels-despite-net-zero-plans/.

Germanwatch, and IRID. *'Overview of the South African Just Energy Transition Partnership',* 22 June 2023. https://www.germanwatch.org/sites/default/files/germanwatch_irid_overview_of_the_south_african_jet-p_2023.pdf.

GFANZ. *'Financial Institution Net-Zero Transition Plans. Fundamentals, Recommendations, and Guid'***,** 2022. https://assets.bbhub.io/company/sites/63/2022/09/Recommendations-and-Guidance-on-Financial-Institution-Net-zero-Transition-Plans-November-2022.pdf.

GFANZ. *'GFANZ Establishes Working Group to Support Capital Mobilization for the Viet Nam Just Energy Transition Partnership'***.** Glasgow Financial Alliance for Net Zero (blog), 14 December 2022. https://www.gfanzero.com/press/gfanz-establishes-working-group-to-support-capital-mobilization-for-the-vietnam-just-energy-transition-partnership/.

Global Energy Monitor. *'Global Coal Plant Tracker*'. Google Docs, July 2024. https://docs.google.com/spreadsheets/u/0/d/1a4biyQQ92xn1R0ptwXtmp3GKQtm6HnBr7P2vXptXA9k/edit?pli=1&usp=embed_facebook.

Global Witness. *'Deforestation Dividends: How Global Banks Profit from Rainforest Destruction and Human Rights Abuses'.* Global Witness, 22 October 2021. https:///en/campaigns/forests/deforestation-dividends/.

Global Witness. *'The Violent Erasure of Land and Environmental Defenders'***.** Global Witness, 10 September 2024. https:///en/campaigns/environmental-activists/missing-voices/.

Godinho, Catrina, Gustavo De Vivero, and Juliette de Grandpré. *'A Just Transition in Colombia'*. IISD, 9 April 2024. https://www.jetknowledge.org/knowledge/just-transition-colombia/.

Government of Indonesia and International Partners. *'Joint Statement by the Government of the Republic of Indonesia (GOI) and the Governments of Japan, the United States of America, Canada, Denmark, the European Union, the Federal Republic of Germany, the French Republic, Norway, the Republic of Italy, and the United Kingdom of Great Britain and Northern Ireland (Together the "International Partners Group" or IPG).',* 2022. https://www.sipet.org/images/document/08082023152371.pdf.

Hallegatte, Stéfane. *'Getting It Right on Development: We Do Not Have to Choose between People and Climate'.* World Bank Blogs (blog), 13 April 2022. https://blogs.worldbank.org/en/climatechange/getting-it-right-development-we-do-not-have-choose-between-people-and-climate.

Harvey, Fiona, and Fiona Harvey Environment editor. *'World Bank Spent Billions of Dollars Backing Fossil Fuels in 2022, Study Finds'.* The Guardian, 12 September 2023, sec. Environment. https://www.theguardian.com/environment/2023/sep/12/world-bank-spent-billions-of-dollars-backing-fossil-fuels-in-2022-study-finds.

Helmholtz Climate Initiative. *'How We Observe Planetary Boundaries',* 26 July 2022. https://helmholtz-klima.de/en/planetary-boundaries.

Hickel, Jason. *'The World's Sustainable Development Goals Aren't Sustainable***'.** Foreign Policy (blog), 30 September 2020. https://foreignpolicy.com/2020/09/30/the-worlds-sustainable-development-goals-arent-sustainable/.

Human Rights Watch. '*Tanzania: Maasai Forcibly Displaced for Game Reserve'.* Human Rights Watch (blog), 27 April 2023. https://www.hrw.org/news/2023/04/27/tanzania-maasai-forcibly-displaced-game-reserve.

ICPH. '*For a 1.5°C-Aligned NCQG',* 2024. https://icphub.org/briefing/466#main-usefulresources.

IEA, IRENA, UNSD, World Bank, and WHO. *'Tracking SDG 7: The Energy Progress Report'***,** 2024. https://trackingsdg7.esmap.org/data/files/download-documents/sdg7-report2024-0611-v9-highresforweb.pdf.

IISD. *'Just Energy Transition in Colombia: Status Quo, Challenges, and Chances'***.** IISD, 26 Octobe**r** 2023. https://www.jetknowledge.org/knowledge/just-energy-transition-colombia-status-quo-challenges-chances/.

iisd. *'Just Transition Guide: Indigenous-Led Pathways toward Equitable Climate Solutions and Resiliency in the Climate Crisis.'* IISD, 7 November 2023. https://www.jetknowledge.org/knowledge/just-transition-guide-indigenous-led-equitable-climate-solutions/.

IKI. *'Innovation Regions for a Just Energy Transition'***,** 2024. https://www.international-climate-initiative.com/en/project/innovation-regions-for-a-just-energy-transition-22-i-418-global-g-innovation-regions-for-just-transition/.

ILO. '*Climate Change and Financing a Just Transition'***,** 9 July 2024. https://www.ilo.org/resource/other/climate-change-and-financing-just-transition.

Indigenous Summit. *'Indigenous Peoples Principles and Protocols for Just Transition'***.** Just Transition Indigenous Summit, 2024. https://www.indigenoussummit.org/summit-outcome.

IPCC. *'AR6 Climate Change 2021. Summary for All'*, 12 December 2022. https://www.ipcc.ch/report/ar6/wg1/downloads/outreach/IPCC_AR6_WGI_SummaryForAll.pdf.

IPCC. *'AR6 Synthesis Report: Climate Change 2023'*, 2023. https://www.ipcc.ch/report/ar6/syr/.

IPCC. *'Chapter 15: Investment and Finance'***. I**n IPCC Sixth Assessment Report: Working Groupp III: Mitigation of Climate Change, 2022. https://www.ipcc.ch/report/ar6/wg3/chapter/chapter-15/.

IPCC. *'Chapter 15: Small Islands'.* In IPCC Sixth Assessment Report, 2043–2121. Cambridge University Press, Cambridge, UK and New York, NY, USA: Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)], 2022. https://www.ipcc.ch/report/ar6/wg2/chapter/chapter-15/.

IPCC. *'Global Warming of 1.5°C. An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty'***,** 2018.

IPCC. *'Global Warming of 1.5°C. An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty'***.** Intergovernmental Panel on Climate Change., 2019.

IRENA. *'Global Landscape of Renewable Energy Finance 2023'*, 22 February 2023. https://www.irena.org/Publications/2023/Feb/Global-landscape-of-renewable-energy-finance-2023.

IRENA. *'IRENASTAT Database',* 2024. https://www.irena.org/Data/Downloads/IRENASTAT.

IRENA.*'NDCs and Renewable Energy Targets in 2023: Tripling Renewable Power by 2030'.* Abu Dhabi: International Renewable Energy Agency, 8 December 2023. https://www.irena.org/Publications/2023/Dec/NDCs-and-renewable-energy-targets-in-2023-Tripling-renewable-power-by-2030.

IRENA. *'World Energy Transitions Outlook 2023: 1.5°C Pathway',* 22 June 2023. https://www.irena.org/Publications/2023/Jun/World-Energy-Transitions-Outlook-2023.

IWGIA. *'The Indigenous World 2023'.* IWGIA - International Work Group for Indigenous Affairs, 2023. https://iwgia.org/en/resources/indigenous-world.html.

Jenkins, Kirsten. *'Setting Energy Justice Apart from the Crowd: Lessons from Environmental and Climate Justice'.* Energy Research & Social Science 39 (1 May 2018): 117–21. https://doi.org/10.1016/j.erss.2017.11.015.

Jenkins, Kirsten, Darren McCauley, Raphael Heffron, Hannes Stephan, and Robert Rehner. *'Energy Justice: A Conceptual Review'***.** Energy Research & Social Science 11 (1 January 2016): 174–82. **https://doi.org/10.1016/j.erss.**2015.10.004.

JETP Indonesia. *'What Is the Sources and Types of Financing of JETP Indonesia?',* 2024. https://jetp-id.org/about/what-is-the-sources-and-types-of-financing-of-jetp-indonesia.

Kartika Larasati, Luthfyana, and Sandy Fajrian. *'JETP Resource Mobilization Plan: How Viet Nam Can Turn Ambition into Action'***.** CPI, 4 April 2024. https://www.climatepolicyinitiative.org/jetp-resource-mobilization-plan-how-viet-nam-can-turn-ambition-into-action/.

Lacey-Barnacle, M., R. Robison, and C. Foulds. *'Energy Justice in the Developing World: A Review of Theoretical Frameworks, Key Research Themes and Policy Implications'***.** Energy for Sustainable Development 55 (1 April 2020): 122–38. https://doi.org/10.1016/j.esd.2020.01.010.

Mak, Winnie, and Andres Vinelli. *'Navigating Transition Finance: An Action List'.* CFA Institute, 26 March 2024. https://doi.org/10.56227/24.1.5.

Morena, Edouard, Dunja Krause, and Dimitris Stevis. *'Introduction: The Genealogy and Contemporary Politics of Just Transitions.'* In Just Transitions: Social Justice in the Shift Towards a Low-Carbon World. Pluto Press, 2020. https://doi.org/10.2307/j.ctvs09qrx.

Muñoz Cabré, Muñoz, and José Vega-Araújo. *'Considerations for a Just and Equitable Energy Transition'.* Stockholm Environment Institute, 2022. **https://www.sei.org/wp-content/uploads/**2022/05/energy-transitions-stockholm50backgroundpaper.pdf.

Newell, Peter, and Dustin Mulvaney. *'The Political Economy of the "Just Transition"'.* The Geographical Journal 179, no. 2 (2013): 132–40. https://doi.org/10.1111/geoj.12008.

Pandey, Poonam, and Aviram Sharma. *'Knowledge Politics, Vulnerability and Recognition-Based Justice: Public Participation in Renewable Energy Transitions in India'.* Energy Research & Social Science 71 (1 January 2021): 101824. https://doi.org/10.1016/j.erss.2020.101824.

Presidential Climate Commission. *'A Framework for a Just Transition in South Africa',* 2022. https://pccommissionflow.imgix.net/uploads/images/A-Just-Transition-Framework-for-South-Africa-2022.pdf.

Richardson, Katherine, Will Steffen, Wolfgang Lucht, Jørgen Bendtsen, Sarah E. Cornell, Jonathan F. Donges, Markus Drüke, et al. *'Earth beyond Six of Nine Planetary Boundaries'.* Science Advances 9, no. 37 (13 September 2023): eadh2458. https://doi.org/10.1126/sciadv.adh2458.

Rockström, Johan, Joyeeta Gupta, Dahe Qin, Steven J. Lade, Jesse F. Abrams, Lauren S. Andersen, David I. Armstrong McKay, et al. *'Safe and Just Earth System Boundaries'.* Nature 619, no. 7968 (July 2023): 102–11. https://doi.org/10.1038/s41586-023-06083-8.

Schlosberg, D. *'Reconceiving Environmental Justice: Global Movements And Political Theories: Environmental Politics: Vol 13, No 3'.* Environmental Politics 13, no. 3 **(**2007). https://doi.org/10.1080/0964401042000229025.

Seiler, Annik A, Hannah Brown, and Samuel Matthews. *'The JETPs of South Africa and Indonesia',* n.d.

Seiler, Annika, Hannah Brown, and Samuel Matthews. *'Just Energy Transition Partnerships: Early Successes and Challenges in Indonesia and South Africa'.* Washington DC: Center for Global Development, 25 July 2023. https://www.cgdev.org/publication/just-energy-transition-partnerships-early-successes-and-challenges-indonesia-and-south.

SIRGE Coalition. *'Green Economy vs. Green Colonialism: Respect for Indigenous Peoples' Rights in the Energy Transition'.* SIRGE Coalition, 2023. https://www.sirgecoalition.org/statements/green-economy-vs-green-colonialism-respect-for-indigenous-peoples-rights-in-the-energy-transition.

Socialist Republic of Viet Nam*. 'Resource Mobilization Plan. Omplementing Viet Nam's Just Energy Transition Partnership (JETP)'*, November 2023. https://climate.ec.europa.eu/system/files/2023-12/RMP_Viet%20Nam_Eng_%28Final%20to%20publication%29.pdf.

Sovacool, Benjamin K., Raphael J. Heffron, Darren McCauley, and Andreas Goldthau. *'Energy Decisions Reframed as Justice and Ethical Concerns'***.** Nature Energy 1, no. 5 (6 May 2016): 1–6. **https://doi.org/10.1038/nenergy.**2016.24.

Stevis, Dimitris, and Romain Felli. *'Global Labour Unions and Just Transition to a Green Economy'***.** International Environmental Agreements: Politics, Law and Economics 15, no. 1 (1 March 2015): 29–43. https://doi.org/10.1007/s10784-014-9266-1.

Stone, Laurie. *'JETPs 101: Helping Emerging Economies Go from Coal to Clean'.* RMI (blog), 25 May 2023. https://rmi.org/jetps-101-helping-emerging-economies-go-from-coal-to-clean/.

UNFCCC. *'"Green" Finance Bankrolls Deforestation in Papua',* **1 June** 2023. https://thegeckoproject.org/articles/green-finance-bankrolls-deforestation-in-papua/.

UNFCCC. *'Green Funds in Indonesia Were Spent Clearing Forests for Biomass'.* Climate Home News, 1 June 2023. https://www.climatechangenews.com/2023/06/01/deforestation-indonesia-biomass-green-finance-papua-medco-indigenous/.

The Presidency - Republic of South Africa. *'Just Energy Transition Implementation Plan 2023–2027'*, 2023. https://www.stateofthenation.gov.za/assets/downloads/JET%20Implementation%20Plan%202023-2027.pdf.

Torres Gunfaus, M., E. Tyler, S. Treyer, O. Chukwumerije, R. Boer, B. McCall, H. Tropllip, E. La Rovere, and S. Sarr. *'Just Energy Transition Partnerships: Can They Really Make a Difference, and How?'* IDDRI (blog), 3 November 2022. https://www.iddri.org/en/publications-and-events/blog-post/just-energy-transition-partnerships-can-they-really-make.

UN. *'UNdata',* 2024. https://data.un.org/Default.aspx.

UNFCCC. '*Article 6.4 Supervisory Body',* 2024. https://unfccc.int/process-and-meetings/bodies/constituted-bodies/article-64-supervisory-body.

UNFCCC. *'Glasgow Climate Pact',* 13 November 2021. https://unfccc.int/documents/310475.

UNFCCC. *'Introduction to Climate Finance'***.** Accessed 30 September 2024. https://unfccc.int/topics/introduction-to-climate-finance.

UNFCCC. *'Operationalization of the New Funding Arrangements, Including a Fund, for Responding to Loss and Damage Referred to in Paragraph 2 and Paragraph 3 of Decisions 2/CP.27 and 2/CMA.4',* 4 November 2023. https://unfccc.int/sites/default/files/resource/TC5_4_Cochairs%20draft%20text_Rev2.pdf.

UNFCCC.'*Report of the Standing Committee on Finance. Addendum. Second Report on the Determination of the Needs of Developing Country Parties Related to Implementing the Convention and the Paris Agreement*', 2024.

UNFCCC. '*The Paris Agreement*', 2015. https://unfccc.int/process-and-meetings/the-paris-agreement.

United Nations. '*A/RES/61/295 Resolution Adopted by the General Assembly on 13 September 2007: 61/295. United Nations Declaration on the Rights of Indigenous Peoples*', 2 October 2007. A/RES/61/295. https://undocs.org/A/RES/61/295.

United Nations. '*Conservation and the Rights of Indigenous Peoples" (Articles 29 and 32 of the United Nations Declaration on the Rights of Indigenous Peoples)*', 2019. https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/12/EGM_2019_ConceptNote.pdf.

United Nations. 'Declaration on the Right to Development'. OHCHR, 4 December 1986. https://www.ohchr.org/en/instruments-mechanisms/instruments/declaration-right-development.

United Nations. '*FCCC/CP/2009/11/Add.1 Report of the Conference of the Parties on Its Fifteenth Session, Held in Copenhagen from 7 to 19 December 2009*', 30 March 2010. **https://unfccc.int/resource/docs/**2009/cop15/eng/11a01.pdf#page=4.

United Nations. '*TRANSFORMING OUR WORLD: The 2030 Agenda for Sustainable Development*'. United Nations, 2015.

United Nations Committee for Development Policy. '*Just Transition. CDP Input on the 2023 ECOSOC Theme (Accelerating the Recovery from the Coronavirus Disease (COVID-19) and the Full Implementation of the 2030 Agenda for Sustainable Development at All Levels)*', 2023. **https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/CDP-excerpt-**2023-1.pdf.

United Nations Economic and Social Council. '*E/C.19/2024/4 International Expert Group Meeting on the Theme "Indigenous Peoples in a Greening Economy". Note by the Secretariat*', 26 February 2024. E/C.19/2024/4. https://social.desa.un.org/sites/default/files/EN%20n2405276.pdf.

United Nations General Assembly. '*A/HRC/55/43 Business, Planetary Boundaries, and the Right to a Clean, Healthy and Sustainable Environment Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, David R. Boyd*', 2 January 2024. https://doi.org/10.1163/2210-7975_HRD-9970-2016149.

Volcovici, Valerie, Leah Douglas, Valerie Volcovici, and Leah Douglas. '*World Not Ready yet to "switch off" Fossil Fuels, COP28 Host UAE Says*'. Reuters, 10 May 2023, sec. Environment. https://www.reuters.com/business/environment/world-not-ready-yet-switch-off-fossil-fuels-cop28-host-uae-says-2023-05-09/.

Vu, Khanh, and Francesco Guarascio. '*Vietnam's Power Development Plan for Cleaner Fuels*'. Reuters, 16 May 2023, sec. Energy. https://www.reuters.com/business/energy/vietnams-power-development-plan-cleaner-fuels-2023-05-16/.

Wang, Jodi-Ann, and Tiffanie Chan. '*What Justice in Whose Just Transition? Mapping Justice Implications in Climate Action*'. IISD, 4 July 2024. https://www.jetknowledge.org/insights/what-justice-in-whose-just-transition-mapping-justice-implications-climate-action/.

Wang, Xinxin, and Kevin Lo. '*Just Transition: A Conceptual Review*'. Energy Research & Social Science 82 (1 December 2021): 102291. https://doi.org/10.1016/j.erss.2021.102291.

Wewerinke-Singh, M. '*A Human Rights Approach to Energy: Realizing the Rights of Billions within Ecological Limits*'. RECIEL 31, no. 1 (2022): 16–26.

WHO. '*Household Air Pollution and Health*', 2021. https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health.

Wilton Park. '*Just Transitions Dialogue: Exploring the Need for International Rules Based on Local Realities*', 2022.

Wischermann, Jörg. '*Vietnam: The Just Energy Transition Partnership (JETP) Has High Political Costs*'. Heinrich Böll Stiftung, 10 March 2024. https://www.boell.de/en/2024/03/10/just-energy-transition-partnership-vietnam-jetp-has-high-political-costs.

World Bank. '*Country Climate and Development Report South Africa*'. Washington DC: World Bank, 2022. https://openknowledge.worldbank.org/server/api/core/bitstreams/52409ffd-96f7-58d4-be7f-c8114abbd4c5/content.

World Bank. '*Country Climate and Development Report Vietnam*'. Global Economic Prospects. Washington DC: The World Bank, 2022. https://doi.org/10.1596/978-1-4648-0483-0_ch2_EAP.

World Bank. '*Scaling Up to Phase Down*'. Washington DC: World Bank, 2023. https://www.worldbank.org/en/topic/energy/publication/scaling-up-to-phase-down.

World Bank. '*World Development Indicators | DataBank*', 2024. https://databank.worldbank.org/reports.aspx?source=World-Development-Indicators.

WRI. '*A Better World for People, Nature and Climate*', 2024. https://www.wri.org/strategic-plan/people-nature-climate.

WWF, SACAN and IEJ. '*IEJ Climate Finance At COP27: A First Take On South Africa's JET-IP*'. World Wide Fund for Nature, South African Climate Action Network and the Institute for Economic Justice, 2022. https://www.iej.org.za/wp-content/uploads/2022/11/COP-27-JET-IP-Fact-sheet.docx.pdf.

Yudhistira, Bhima. '*Regional Governments Hold Key to Indonesia's JETP Success*'. IISD, 26 June 2024. https://www.jetknowledge.org/insights/celios-regional-governments-hold-key-to-indonesia-jetp-success/.

Endnotes

1 IPCC, 'AR6 Synthesis Report'; IPCC, 'AR6 Climate Change 2021. Summary for All'; IPCC, 'Global Warming of 1.5°C. An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty'; IPCC, 'Global Warming of 1.5°C. An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty'.

2 Wilton Park, 'Just Transitions Dialogue: Exploring the Need for International Rules Based on Local Realities', 2022.

3 Hansika Agrawal *et al.*, 'Enabling a Just Transition: Protecting Human Rights in Renewable Energy Projects' (New York: Columbia Center on Sustainable Investment, April 2023), https://ccsi.columbia.edu/content/enabling-just-transition-protecting-human-rights-renewable-energy-projects; Xinxin Wang and Kevin Lo, 'Just Transition: A Conceptual Review', Energy Research & Social Science 82 (1 December 2021): 102291, https://doi.org/10.1016/j.erss.2021.102291; Wilton Park, 'Just Transitions Dialogue: Exploring the Need for International Rules Based on Local Realities'.

4 IRENA, 'NDCs and Renewable Energy Targets in 2023: Tripling Renewable Power by 2030' (Abu Dhabi: International Renewable Energy Agency, 8 December 2023), https://www.irena.org/Publications/2023/Dec/NDCs-and-renewable-energy-targets-in-2023-Tripling-renewable-power-by-2030; IRENA, 'World Energy Transitions Outlook 2023: 1.5°C Pathway', 22 June 2023, https://www.irena.org/Publications/2023/Jun/World-Energy-Transitions-Outlook-2023; World Bank, 'Scaling Up to Phase Down' (Washington DC: World Bank, 2023), https://www.worldbank.org/en/topic/energy/publication/scaling-up-to-phase-down.

5 UNFCCC, 'Introduction to Climate Finance'.

6 Winnie Mak and Andres Vinelli, 'Navigating Transition Finance: An Action List' (CFA Institute, 26 March 2024), https://doi.org/10.56227/24.1.5.

7 Ben Cahill, Sarah Ladislaw, and Mary Margaret Allen, 'Just Transition Concepts and Relevance for Climate Action', 26 June 2020, https://www.csis.org/analysis/just-transition-concepts-and-relevance-climate-action; Edouard Morena, Dunja Krause, and Dimitris Stevis, 'Introduction: The Genealogy and Contemporary Politics of Just Transitions.', in Just Transitions: Social Justice in the Shift Towards a Low-Carbon World (Pluto Press, 2020), https://doi.org/10.2307/j.ctvs09qrx; Peter Newell and Dustin Mulvaney, 'The Political Economy of the "Just Transition"', The Geographical Journal 179, no. 2 (2013): 132–40, https://doi.org/10.1111/geoj.12008.

8 Cahill, Ladislaw, and Allen, 'Just Transition Concepts and Relevance for Climate Action'; Dimitris Stevis and Romain Felli, 'Global Labour Unions and Just Transition to a Green Economy', International Environmental Agreements: Politics, Law and Economics 15, no. 1 (1 March 2015): 29–43, https://doi.org/10.1007/s10784-014-9266-1.

9 UNFCCC, 'The Paris Agreement', 2015, https://unfccc.int/process-and-meetings/the-paris-agreement.

10 ILO, 'Climate Change and Financing a Just Transition', 9 July 2024, https://www.ilo.org/resource/other/climate-change-and-financing-just-transition.

11 UNFCCC, 'Glasgow Climate Pact', 13 November 2021, https://unfccc.int/documents/310475.

12 United Nations Committee for Development Policy, 'Just Transition. CDP Input on the 2023 ECOSOC Theme (Accelerating the Recovery from the Coronavirus Disease (COVID-19) and the Full Implementation of the 2030 Agenda for Sustainable Development at All Levels)', 2023, https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/CDP-excerpt-2023-1.pdf.

13 African Development Bank, 'A Just Transition to Address Climate Change in the African Context', 2023, https://www.jetknowledge.org/knowledge/just-transition-address-climate-change-african-context/.

14 Kirsten Jenkins, 'Setting Energy Justice Apart from the Crowd: Lessons from Environmental and Climate Justice', Energy Research & Social Science 39 (1 May 2018): 117–21, https://doi.org/10.1016/j.erss.2017.11.015; Kirsten Jenkins *et al.*, 'Energy Justice: A Conceptual Review', Energy Research & Social Science 11 (1 January 2016): 174–82, https://doi.org/10.1016/j.erss.2015.10.004; D. Schlosberg, 'Reconceiving Environmental Justice: Global Movements And Political Theories: Environmental Politics: Vol 13, No 3', Environmental Politics 13, no. 3 (2007), https://doi.org/10.1080/0964401042000229025.

15 Benjamin K. Sovacool *et al.*, 'Energy Decisions Reframed as Justice and Ethical Concerns', Nature Energy 1, no. 5 (6 May 2016): 1–6, https://doi.org/10.1038/nenergy.2016.24.

16 Climate Justice Alliance, 'Just Transition', accessed 17 September 2024, https://climatejusticealliance.org/just-transition/.

17 African Development Bank, 'A Just Transition to Address Climate Change in the African Context'.

18 Catrina Godinho, Gustavo De Vivero, and Juliette de Grandpré, 'A Just Transition in Colombia' (IISD, 9 April 2024), https://www.jetknowledge.org/knowledge/just-transition-colombia/; Annik A Seiler, Hannah Brown, and Samuel Matthews, 'The JETPs of South Africa and Indonesia', n.d.; Wilton Park, 'Just Transitions Dialogue: Exploring the Need for International Rules Based on Local Realities'.

19 Muñoz Muñoz Cabré and José Vega-Araújo, 'Considerations for a Just and Equitable Energy Transition' (Stockholm Environment Institute, 2022), https://www.sei.org/wp-content/uploads/2022/05/energy-transitions-stockholm50backgroundpaper.pdf.»plainCitation»:»Muñoz Muñoz Cabré and José Vega-Araújo, 'Considerations for a Just and Equitable Energy Transition' (Stockholm Environment Institute, 2022

20 Amanda Chu *et al.*, 'BP Chief: Fossil Fuels Have Done "Enormous Good"', Financial Times, 11 May 2023, sec. Energy Source, https://www.ft.com/content/c87cc623-0fb2-4481-be1f-59afddd10684; Josh Gabbatiss, 'Major Emitters "May Retain or Expand" Fossil Fuels despite Net-Zero Plans', Carbon Brief, 9 May 2024, https://www.carbonbrief.org/major-emitters-may-retain-or-expand-fossil-fuels-despite-net-zero-plans/; Fiona Harvey and Fiona Harvey Environment editor, 'World Bank Spent Billions of Dollars Backing Fossil Fuels in 2022, Study Finds', The Guardian, 12 September 2023, sec. Environment, https://www.theguardian.com/environment/2023/sep/12/world-bank-spent-billions-of-dollars-backing-fossil-fuels-in-2022-study-finds; Valerie Volcovici *et al.*, 'World Not Ready yet to "switch off" Fossil Fuels, COP28 Host UAE Says', Reuters, 10 May 2023, sec. Environment, https://www.reuters.com/business/environment/world-not-ready-yet-switch-off-fossil-fuels-cop28-host-uae-says-2023-05-09/.

21 UNFCCC, 'Introduction to Climate Finance', accessed 30 September 2024, https://unfccc.int/topics/introduction-to-climate-finance.

22 African Development Bank, 'A Just Transition to Address Climate Change in the African Context', 2023, https://www.jetknowledge.org/knowledge/just-transition-address-climate-change-african-context/.

23 IPCC, 'AR6 Synthesis Report: Climate Change 2023', 2023, https://www.ipcc.ch/report/ar6/syr/; IPCC, 'AR6 Climate Change 2021. Summary for All', 12 December 2022, https://www.ipcc.ch/report/ar6/wg1/downloads/outreach/IPCC_AR6_WGI_SummaryForAll.pdf; IPCC, 'Chapter 15: Small Islands', in IPCC Sixth Assessment Report (Cambridge University Press, Cambridge, UK and New York, NY, USA: Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)], 2022), 2043–2121, https://www.ipcc.ch/report/ar6/wg2/chapter/chapter-15/; IPCC, 'Global Warming of 1.5°C. An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty', 2018.

24 United Nations, 'Declaration on the Right to Development', OHCHR, 4 December 1986, https://www.ohchr.org/en/instruments-mechanisms/instruments/declaration-right-development; WWF, SACAN and IEJ, 'IEJ Climate Finance At COP27: A First Take On South Africa's JET-IP' (World Wide Fund for Nature, South African Climate Action Network and the Institute for Economic Justice, 2022), https://www.iej.org.za/wp-content/uploads/2022/11/COP-27-JET-IP-Fact-sheet.docx.pdf.

25 IRENA, 'World Energy Transitions Outlook 2023: 1.5°C Pathway', 22 June 2023, https://www.irena.org/Publications/2023/Jun/World-Energy-Transitions-Outlook-2023.

26 IRENA; Wilton Park, 'Just Transitions Dialogue: Exploring the Need for International Rules Based on Local Realities', 2022.

27 Laurie Stone, 'JETPs 101: Helping Emerging Economies Go from Coal to Clean', RMI (blog), 25 May 2023, https://rmi.org/jetps-101-helping-emerging-economies-go-from-coal-to-clean/.

28 Catrina Godinho, Gustavo De Vivero, and Juliette de Grandpré, 'A Just Transition in Colombia' (IISD, 9 April 2024), https://www.jetknowledge.org/knowledge/just-transition-colombia/.

29 Godinho, De Vivero, and de Grandpré; IISD, 'Just Energy Transition in Colombia: Status Quo, Challenges, and Chances', IISD, 26 October 2023, https://www.jetknowledge.org/knowledge/just-energy-transition-colombia-status-quo-challenges-chances/.

30 World Bank, 'Country Climate and Development Report Viet Nam', Global Economic Prospects (Washington DC: The World Bank, 2022), https://doi.org/10.1596/978-1-4648-0483-0_ch2_EAP.

31 Presidential Climate Commission, 'A Framework for a Just Transition in South Africa', 2022, https://pccommissionflow.imgix.net/uploads/images/A-Just-Transition-Framework-for-South-Africa-2022.pdf.

32 Wang and Chan, 'What Justice in Whose Just Transition?'

33 Muñoz Muñoz Cabré and José Vega-Araújo, 'Considerations for a Just and Equitable Energy Transition' (Stockholm Environment Institute, 2022), https://www.sei.org/wp-content/uploads/2022/05/energy-transitions-stockholm50backgroundpaper.pdf.»plainCitation»:»Muñoz Muñoz Cabré and José Vega-Araújo, 'Considerations for a Just and Equitable Energy Transition' (Stockholm Environment Institute, 2022

34 African Commission's Working Group on Indigenous Populations/Communities, 'Extractive Industries, Land Rights and Indigenous Populations'/Communities' Rights. East, Central and Southern Africa.' (The African Commission on Human and Peoples's Rights/IWGIA, 2017);

Hansika Agrawal *et al.*, 'Enabling a Just Transition: Protecting Human Rights in Renewable Energy Projects' (New York: Columbia Center on Sustainable Investment, April 2023), https://ccsi.columbia.edu/content/enabling-just-transition-protecting-human-rights-renewable-energy-projects; Business & Human Rights Resource Centre, 'Unjust Transition on Trial: Communities and Workers Litigate to Shape Corporate Practice', Business & Human Rights Resource Centre, 2024, https://www.business-humanrights.org/en/from-us/briefings/unjust-transition-on-trial-communities-and-workers-litigate-to-shape-corporate-practice/.

35 Agrawal *et al.*, 'Enabling a Just Transition: Protecting Human Rights in Renewable Energy Projects'; Human Rights Watch, 'Tanzania: Maasai Forcibly Displaced for Game Reserve', Human Rights Watch (blog), 27 April 2023, https://www.hrw.org/news/2023/04/27/tanzania-maasai-forcibly-displaced-game-reserve; M. Wewerinke-Singh, 'A Human Rights Approach to Energy: Realizing the Rights of Billions within Ecological Limits', RECIEL 31, no. 1 (2022): 16–26.

36 Wilton Park, 'Just Transitions Dialogue: Exploring the Need for International Rules Based on Local Realities'.

37 Muñoz Cabré and Vega-Araújo, 'Considerations for a Just and Equitable Energy Transition'.

38 Muñoz Cabré and Vega-Araújo.

39 Helmholtz Climate Initiative, 'How We Observe Planetary Boundaries', 26 July 2022, https://helmholtz-klima.de/en/planetary-boundaries; Katherine Richardson *et al.*, 'Earth beyond Six of Nine Planetary Boundaries', Science Advances 9, no. 37 (13 September 2023): eadh2458, https://doi.org/10.1126/sciadv.adh2458; Johan Rockström *et al.*, 'Safe and Just Earth System Boundaries', Nature 619, no. 7968 (July 2023): 102–11, https://doi.org/10.1038/s41586-023-06083-8; Wilton Park, 'Just Transitions Dialogue: Exploring the Need for International Rules Based on Local Realities'.

40 African Development Bank, 'A Just Transition to Address Climate Change in the African Context'; Global Witness, 'The Violent Erasure of Land and Environmental Defenders', Global Witness, 10 September 2024, https:///en/campaigns/environmental-activists/missing-voices/; Wilton Park, 'Just Transitions Dialogue: Exploring the Need for International Rules Based on Local Realities'.

41 United Nations, 'TRANSFORMING OUR WORLD: The 2030 Agenda for Sustainable Development' (United Nations, 2015).

42 Climate Justice Alliance, 'Just Transition', accessed 17 September 2024, https://climatejusticealliance.org/just-transition.

43 Climate Justice Alliance; Friends of the Earth International, 'Toolkit for Fighting False Solutions to the Climate Crisis', 7 November 2023, https://www.foei.org/publication/toolkit-climate-false-solutions/; Helmholtz Climate Initiative, 'How We Observe Planetary Boundaries'; Jason Hickel, 'The World's Sustainable Development Goals Aren't Sustainable', Foreign Policy (blog), 30 September 2020, https://foreignpolicy.com/2020/09/30/the-worlds-sustainable-development-goals-arent-sustainable/.

44 Agrawal *et al.*, 'Enabling a Just Transition: Protecting Human Rights in Renewable Energy Projects'; Abigail Anongos *et al.*, 'Pitfalls and Pipelines: Indigenous Peoples and Extractive Industries', 2012, https://www.iwgia.org/en/resources/publications/305-books/3089-pitfalls-and-pipelines-Indigenous-peoples-and-extractive-industries-; Lara Domínguez and Colin Luoma, 'Decolonising Conservation Policy: How Colonial Land and Conservation Ideologies Persist and Perpetuate Indigenous Injustices at the Expense of the Environment', Land 9, no. 3 (2020): 65, https://doi.org/10.3390/land9030065; United Nations, 'Conservation and the Rights of Indigenous Peoples" (Articles 29 and 32 of the United Nations Declaration on the Rights of Indigenous Peoples)', 2019, https://www.un.org/development/desa/Indigenouspeoples/wp-content/uploads/sites/19/2018/12/EGM_2019_ConceptNote.pdf; United Nations.

45 Anongos *et al.*, 'Pitfalls and Pipelines: Indigenous Peoples and Extractive Industries'; Cathal Doyle and J. Gilbert, 'Indigenous Peoples and Globalization: From "development Aggression" to "Self-Determined Development"', ed. European Centre for Minority Issues and The European Academy Bozen/Bolzano, vol. 8 (Leiden, Netherlands: Martinus Nijhoff, 2011), 219–62, http://www.brill.com/european-yearbook-minority-issues-volume-8-2009; IWGIA, 'The Indigenous World 2023', IWGIA - International Work Group for Indigenous Affairs, 2023, https://iwgia.org/en/resources/Indigenous-world.html.

46 Indigenous Summit, 'Indigenous Peoples Principles and Protocols for Just Transition', Just Transition Indigenous Summit, 2024, https://www.Indigenoussummit.org/summit-outcome.

47 The author is grateful to Yblin Roman from SIRGE Coalition for her helpful contribution to this paragraph.

48 Muñoz Cabré and Vega-Araújo, 'Considerations for a Just and Equitable Energy Transition'.

49 Agrawal *et al.*, 'Enabling a Just Transition: Protecting Human Rights in Renewable Energy Projects'; Sufyan Droubi and Raphael J. Heffron, 'Politics' Continued Erosion of Sustainable Development for Brazil's Indigenous Peoples', Peripheries Journal, 2020, https://discovery.dundee.ac.uk/ws/files/50781306/Droubi_Heffron_2020_Erosion_of_Sustainable_Development_for_Indigenous_Peoples.pdf; M. Lacey-Barnacle, R. Robison, and C. Foulds, 'Energy Justice in the Developing World: A Review of Theoretical Frameworks, Key Research Themes and Policy Implications', Energy for Sustainable Development 55 (1 April 2020): 122–38, https://doi.org/10.1016/j.esd.2020.01.010; Muñoz Cabré and Vega-Araújo, 'Considerations for a Just and Equitable Energy Transition'; Poonam Pandey and Aviram Sharma, 'Knowledge Politics, Vulnerability and Recognition-Based Justice: Public Participation in Renewable Energy Transitions in India', Energy Research & Social Science 71 (1 January 2021): 101824, https://doi.org/10.1016/j.erss.2020.101824.

50 Presidential Climate Commission, 'A Framework for a Just Transition in South Africa'.

51 Presidential Climate Commission.

52 Domínguez and Luoma, 'Decolonising Conservation Policy: How Colonial Land and Conservation Ideologies Persist and Perpetuate Indigenous Injustices at the Expense of the Environment'; Droubi and Heffron, 'Politics' Continued Erosion of Sustainable Development for Brazil's Indigenous Peoples'; iisd, 'Just Transition Guide: Indigenous-Led Pathways toward Equitable Climate Solutions and Resiliency in the Climate Crisis.', IISD, 7 November 2023, https://www.jetknowledge.org/knowledge/just-transition-guide-Indigenous-led-equitable-climate-solutions/; Indigenous Summit, 'Indigenous Peoples Principles and Protocols for Just Transition'; SIRGE Coalition, 'Green Economy vs. Green Colonialism: Respect for Indigenous Peoples' Rights in the Energy Transition', SIRGE Coalition, 2023, https://www.sirgecoalition.org/statements/green-economy-vs-green-colonialism-respect-for-Indigenous-peoples-rights-in-the-energy-transition.

53 CPH, 'For a 1.5°C-Aligned NCQG', 2024, https://icphub.org/briefing/466#main-usefulresources; UNFCCC, 'Report of the Standing Committee on Finance. Addendum. Second Report on the Determination of the Needs of Developing Country Parties Related to Implementing the Convention and the Paris Agreement', 2024.

54 IPCC, 'Chapter 15: Investment and Finance', in IPCC Sixth Assessment Report: Working Groupp III: Mitigation of Climate Change, 2022, https://www.ipcc.ch/report/ar6/wg3/chapter/chapter-15/.

55 Stéfane Hallegatte, 'Getting It Right on Development: We Do Not Have to Choose between People and Climate', World Bank Blogs (blog), 13 April 2022, https://blogs.worldbank.org/en/climatechange/getting-it-right-development-we-do-not-have-choose-between-people-and-climate; WRI, 'A Better World for People, Nature and Climate', 2024, https://www.wri.org/strategic-plan/people-nature-climate.

56 United Nations, 'FCCC/CP/2009/11/Add.1 Report of the Conference of the Parties on Its Fifteenth Session, Held in Copenhagen from 7 to 19 December 2009', 30 March 2010, https://unfccc.int/resource/docs/2009/cop15/eng/11a01.pdf#page=4.

57 UNFCCC, 'Introduction to Climate Finance'.

58 UNFCCC, 'Operationalization of the New Funding Arrangements, Including a Fund, for Responding to Loss and Damage Referred to in Paragraph 2 and Paragraph 3 of Decisions 2/CP.27 and 2/CMA.4', 4 November 2023, https://unfccc.int/sites/default/files/resource/TC5_4_Cochairs%20draft%20text_Rev2.pdf.

59 GFANZ, 'GFANZ Establishes Working Group to Support Capital Mobilization for the Viet Nam Just Energy Transition Partnership', Glasgow Financial Alliance for Net Zero (blog), 14 December 2022, https://www.gfanzero.com/press/gfanz-establishes-working-group-to-support-capital-mobilization-for-the-vietnam-just-energy-transition-partnership/.

60 European Commission, 'Just Energy Transition Partnership with South Africa', Text, European Commission - European Commission, 2021, https://ec.europa.eu/commission/presscorner/detail/cs/ip_21_5768.

61 Socialist Republic of Viet Nam, 'Resource Mobilization Plan. Omplementing Viet Nam's Just Energy Transition Partnership (JETP)', November 2023, https://climate.ec.europa.eu/system/files/2023-12/RMP_Viet%20Nam_Eng_%28Final%20to%20publication%29.pdf; Jörg Wischermann, 'Viet Nam: The Just Energy Transition Partnership (JETP) Has High Political Costs' (Heinrich Böll Stiftung, 10 March 2024), https://www.boell.de/en/2024/03/10/just-energy-transition-partnership-vietnam-jetp-has-high-political-costs.

62 European Commission, 'Just Energy Transition Partnership with South Africa'.

63 European Commission, 'Just Energy Transition Partnership with Indonesia', Text, European Commission - European Commission, 15 November 2022, https://ec.europa.eu/commission/presscorner/detail/en/ip_22_6926.

64 World Bank, 'World Development Indicators | DataBank', 2024, https://databank.worldbank.org/reports.aspx?source=World-Development-Indicators.

65 IRENA, 'IRENASTAT Database', 2024, https://www.irena.org/Data/Downloads/IRENASTAT.

66 UN, 'UNdata', 2024, https://data.un.org/Default.aspx.

67 IEA *et al.*, 'Tracking SDG 7: The Energy Progress Report', 2024, https://trackingsdg7.esmap.org/data/files/download-documents/sdg7-report2024-0611-v9-highresforweb.pdf.

68 WHO, 'Household Air Pollution and Health', 2021, https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health.

69 Global Energy Monitor, 'Global Coal Plant Tracker', Google Docs, July 2024, https://docs.google.com/spreadsheets/u/0/d/1a4biyQQ92xn1R0ptwXtmp3GKQtm6HnBr7P2vXptXA9k/edit?pli=1&usp=embed_facebook.

70 Khanh Vu and Francesco Guarascio, 'Viet Nam's Power Development Plan for Cleaner Fuels', Reuters, 16 May 2023, sec. Energy, https://www.reuters.com/business/energy/vietnams-power-development-plan-cleaner-fuels-2023-05-16/.

71 World Bank, 'Country Climate and Development Report Viet Nam'.

72 IRENA, 'NDCs and Renewable Energy Targets in 2023: Tripling Renewable Power by 2030' (Abu Dhabi: International Renewable Energy Agency, 8 December 2023), https://www.irena.org/Publications/2023/Dec/NDCs-and-renewable-energy-targets-in-2023-Tripling-renewable-power-by-2030.

73 Global Energy Monitor, 'Global Coal Plant Tracker'.

74 IRENA, 'NDCs and Renewable Energy Targets in 2023'.

75 Global Energy Monitor, 'Global Coal Plant Tracker'.

76 World Bank, 'Country Climate and Development Report South Africa' (Washington DC: World Bank, 2022), https://openknowledge.worldbank.org/server/api/core/bitstreams/52409ffd-96f7-58d4-be7f-c8114abbd4c5/content.

77 Government of Indonesia and International Partners, 'Joint Statement by the Government of the Republic of Indonesia (GOI) and the Governments of Japan, the United States of America, Canada, Denmark, the European Union, the Federal Republic of Germany, the French Republic, Norway, the Republic of Italy, and the United Kingdom of Great Britain and Northern Ireland (Together the "International Partners Group" or IPG).', 2022, https://www.sipet.org/images/document/08082023152371.pdf.

78 Government of Indonesia and International Partners.

79 GFANZ, 'Financial Institution Net-Zero Transition Plans. Fundamentals, Recommendations, and Guid', 2022, https://assets.bbhub.io/company/sites/63/2022/09/Recommendations-and-Guidance-on-Financial-Institution-Net-zero-Transition-Plans-November-2022.pdf.

80 GFANZ, 'Financial Institution Net-Zero Transition Plans. Fundamentals, Recommendations, and Guid', 2022, https://assets.bbhub.io/company/sites/63/2022/09/Recommendations-and-Guidance-on-Financial-Institution-Net-zero-Transition-Plans-November-2022.pdf.

81 Annika Seiler, Hannah Brown, and Samuel Matthews, 'Just Energy Transition Partnerships: Early Successes and Challenges in Indonesia and South Africa' (Washington DC: Center for Global Development, 25 July 2023), https://www.cgdev.org/publication/just-energy-transition-partnerships-early-successes-and-challenges-indonesia-and-south.

82 IRENA, 'NDCs and Renewable Energy Targets in 2023'.

83 The Presidency - Republic of South Africa, 'Just Energy Transition Implementation Plan 2023–2027', 2023, https://www.stateofthenation.gov.za/assets/downloads/JET%20Implementation%20Plan%202023-2027.pdf.

84 Luthfyana Kartika Larasati and Sandy Fajrian, 'JETP Resource Mobilization Plan: How Viet Nam Can Turn Ambition into Action', CPI, 4 April 2024, https://www.climatepolicyinitiative.org/jetp-resource-mobilization-plan-how-viet-nam-can-turn-ambition-into-action/.

85 IKI, 'Innovation Regions for a Just Energy Transition', 2024, https://www.international-climate-initiative.com/en/project/innovation-regions-for-a-just-energy-transition-22-i-418-global-g-innovation-regions-for-just-transition/; Kartika Larasati and Fajrian, 'JETP Resource Mobilization Plan'.

86 The Gecko Project, 'Green Funds in Indonesia Were Spent Clearing Forests for Biomass', Climate Home News, 1 June 2023, https://www.climatechangenews.com/2023/06/01/deforestation-indonesia-biomass-green-finance-papua-medco-Indigenous/.

87 The Gecko Project, '"Green" Finance Bankrolls Deforestation in Papua', 1 June 2023, https://thegeckoproject.org/articles/green-finance-bankrolls-deforestation-in-papua/.

88 The author thanks several interviewees who contributed background for this paragraph.

89 The Presidency - Republic of South Africa, 'Just Energy Transition Implementation Plan 2023–2027', 2023, https://www.stateofthenation.gov.za/assets/downloads/JET%20Implementation%20Plan%202023-2027.pdf.

90 JETP Indonesia, 'What Is the Sources and Types of Financing of JETP Indonesia?', 2024, https://jetp-id.org/about/what-is-the-sources-and-types-of-financing-of-jetp-indonesia.

91 Tracey Ledger (PARI), Jack Radmore and Claire Pengelly (GreenCape) provided valuable background to this.

92 JETP Indonesia, 'What Is the Sources and Types of Financing of JETP Indonesia?'; Kartika Larasati and Fajrian, 'JETP Resource Mobilization Plan'.

93 Kartika Larasati and Fajrian, 'JETP Resource Mobilization Plan'.

94 This section benefited substantially from interviews conducted for this research with INETTT members.

95 Socialist Republic of Viet Nam, 'Resource Mobilization Plan. Omplementing Viet Nam's Just Energy Transition Partnership (JETP)'.

96 Socialist Republic of Viet Nam.

97 GFANZ, 'GFANZ Establishes Working Group to Support Capital Mobilization for the Viet Nam Just Energy Transition Partnership'.

98 350.org, 'Just Energy Transition Partnerships', 2024, https://350.org/jetp/.

99 M. Torres Gunfaus *et al.*, 'Just Energy Transition Partnerships: Can They Really Make a Difference, and How?', IDDRI (blog), 3 November 2022, https://www.iddri.org/en/publications-and-events/blog-post/just-energy-transition-partnerships-can-they-really-make.

100 IRENA, 'Global Landscape of Renewable Energy Finance 2023', 22 February 2023, https://www.irena.org/Publications/2023/Feb/Global-landscape-of-renewable-energy-finance-2023.

101 350.org, 'Just Energy Transition Partnerships'.

102 350.org; D. Schlosberg, 'Reconceiving Environmental Justice: Global Movements And Political Theories: Environmental Politics: Vol 13, No 3', Environmental Politics 13, no. 3 (2007), https://doi.org/10.1080/0964401042000229025; United Nations Economic and Social Council, 'E/C.19/2024/4 International Expert Group Meeting on the Theme "Indigenous Peoples in a Greening Economy". Note by the Secretariat', 26 February 2024, E/C.19/2024/4, https://social.desa.un.org/sites/default/files/EN%20n2405276.pdf; United Nations General Assembly, 'A/HRC/55/43 Business, Planetary Boundaries, and the Right to a Clean, Healthy and Sustainable Environment Report of the Special Rapporteur on the Issue of Human Rights Obligations Relating to the Enjoyment of a Safe, Clean, Healthy and Sustainable Environment, David R. Boyd', 2 January 2024, https://doi.org/10.1163/2210-7975_HRD-9970-2016149.

104 United Nations, 'A/RES/61/295 Resolution Adopted by the General Assembly on 13 September 2007: 61/295. United Nations Declaration on the Rights of Indigenous Peoples', 2 October 2007, A/RES/61/295, https://undocs.org/A/RES/61/295.

105 UNFCCC, 'Article 6.4 Supervisory Body', 2024, https://unfccc.int/process-and-meetings/bodies/constituted-bodies/article-64-supervisory-body.

106 Germanwatch and IRID, 'Overview of the South African Just Energy Transition Partnership', 22 June 2023, https://www.germanwatch.org/sites/default/files/germanwatch_irid_overview_of_the_south_african_jet-p_2023.pdf; Bhima Yudhistira, 'Regional Governments Hold Key to Indonesia's JETP Success', IISD, 26 June 2024, https://www.jetknowledge.org/insights/celios-regional-governments-hold-key-to-indonesia-jetp-success/.

107 The author thanks Shravy Reddy and the RAP team for their substantial contribution to this section.

International Network of Energy Transition Think Tanks INETTT

The International Network of Energy Transition Think Tanks (INETTT) is a group of independent, non-profit think tanks dedicated to working on energy transitions to achieve the climate goals of the Paris Agreement.

INETTT leverages the collective knowledge and expertise of its member think tanks from across the globe who carry out research and provide fact-based policy recommendations to accelerate energy transitions. At both national and international levels, INETTT offers a trusted dialogue space to share knowledge and skills, form strategic positions, and conduct research and policy advice on accelerating energy transitions towards climate neutrality.