



TOWARDS A JUST ENERGY TRANSITION

Implications for communities in lower- and middle-income countries

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More frequent or intense floods, heatwaves, wildfires, droughts and typhoons devastate people's homes, livelihoods and the natural world. A clean energy transition is urgently needed to reduce carbon emissions and prevent the impacts worsening. Wealthy countries have the prime historic responsibility for the climate crisis and therefore for its mitigation. But as the clean energy transition gathers speed, it inevitably also impacts lower-income, lower-emitting countries and communities. This research report, written by 20 co-authors from Africa, Asia, Latin America, the Middle East, the US and Europe, investigates the implications of the energy transition for them, and asks how the world can achieve a truly just, as well as fast, transition.

The findings highlight the stark choice facing humanity. If the transition is undertaken with justice and respect for communities' rights at its heart, it offers an unprecedented opportunity to simultaneously mitigate the climate crisis and reduce poverty and inequality. Conversely, an unjust transition, which entrenches or exacerbates inequalities, risks generating public resistance and slowing the transition with devastating human consequences.

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Cover photo: Celsa Nable is a member of one of the women's groups that launched the solar project on Hilabaan Island in the Philippines. The participants appreciate the financial, health and environmental benefits of using solar power rather than fossil fuels like kerosene. Now, they are able to work at their livelihoods in the evenings, and their children can do their homework safely.
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EXECUTIVE SUMMARY

The climate crisis is intensifying. More frequent and intense rainfall, destructive typhoons, heat waves and prolonged droughts are devastating millions of lives, disproportionately affecting low-emitting, marginalized communities and social groups who have contributed the least to the crisis. No effort to contain the intensifying climate crisis can succeed unless the world transitions to clean and renewable energy sources. This research report, produced with staff and partners from Africa, Asia, Latin America, the Middle East, the US and Europe, investigates the implications of the energy transition for communities in lower- and middle-income countries, and asks how the world can achieve a truly just, as well as fast, transition.

Humanity's use of fossil fuel continues to drive the climate crisis, super-charged by the dominant extractive and unequal economic model and its relentless pursuit of growth and profit. With the energy sector accounting for around three-quarters of greenhouse gas emissions, a fast global transition to clean and renewable sources of energy is vital to prevent ever more dangerous climate impacts. Switching from polluting fossil fuels to clean and renewable energy sources, promoting more efficient energy and resource use, and reducing energy consumption, are all vital elements of this transition.

At the same time, energy is vital for human flourishing. It liberates people from arduous physical labour and underpins many aspects of our lives, including the food we eat, how we heat and light our homes, the transport we use, the clothes we wear, and how we communicate with each other.

Yet much of the world's population still lack access to clean, affordable, and reliable energy sources. An estimated 733 million people remain without access to electricity. An estimated 2.4 billion people rely on open fires for cooking, causing 4 million deaths a year through indoor pollution.

As well as reducing carbon emissions, the clean energy transition offers countries the prospect of generating various economic, social and environmental co-benefits – such as improved energy access, strengthened energy security, new green jobs, protection against volatile fuel prices, reduced pollution, and decentralised locally owned energy generation.

Such benefits, combined with the scale of transition required to mitigate the climate crisis, offer humanity an unprecedented opportunity to simultaneously reduce existing inequalities and achieve universal energy access and other vital Sustainable Development Goals (SDGs). But for this to happen the energy transition needs to be undertaken with a conscious commitment and effort to put justice and community rights at its core.

Without a focus on justice, the transition risks undermining human rights and entrenching existing and historic injustices and inequalities. This, in turn breeds public resistance which slows the transition, with devastating human consequences, particularly for marginalised communities in lower-income countries who suffer the worse impacts but have contributed the least to the crisis. Indigenous and rural communities are already facing transition-related injustices and rights abuses, such as land grabs for renewable energy and transition minerals without prior consultation, benefit, or reparation. While the resultant protests and government suspensions incur heavy financial costs for investors and companies.

The principle of common but differentiated responsibility and respective capabilities, the operating framework of global climate action, states that responsibility for reducing emissions – and hence the switch to clean energy – lies unequivocally with rich countries, fossil fuel and carbon-intensive companies, and wealthy individuals. According to one calculation, wealthy countries that grew rich on fossil fuels are responsible for an estimated 92% of all excess historical emissions – far above their fair share.

However, the clean energy transition also has significant implications for middle- and lower-income countries too, due to the global need and pressure to decarbonize; the opportunity it offers to reduce poverty and inequality and transform societies; but also the significant threats of an unjust and extractive transition.

This research findings, which draws on the experiences of 12 lower and middle-income countries in Asia, Africa, the Middle East and Latin America where Oxfam works, highlights the need for the global energy transition to be fast enough to prevent dangerous climate impacts, but also just so that it inspires action and enables people and nature to thrive now and in the future and transformative, so it tackles the structural drivers of the crisis.

In terms of speed, the research finds that although many of the 12 surveyed countries are low emitters, most had ambitious emission reduction targets and were seeking to increase the use of renewables in their energy mix. However, the speed, scale and nature of their clean energy transitions are constrained by the lack of promised concessionary climate finance from wealthy countries and inadequate investment. Of the \$2.8 trillion invested in renewables globally between 2000 and 2020, only 2% went to Africa, despite the continent's enormous renewable energy potential and need to bring modern energy to millions of citizens who still lack access. Without external climate finance assistance, lower- and middle-income countries will struggle to achieve carbon reduction and improve energy access and energy security. As in other countries, they also face political resistance from incumbent interests, economic and technical challenges, and difficult trade-offs, for example, between reducing emissions and sustaining energy and revenues from fossil fuels, or competition over land use.

Yet while recognition of the need for a just transition has grown in recent years, there are still too many initiatives which narrowly prioritize carbon reduction or efficiency without adequately integrating justice and rights. Building on and broadening the crucial work of the ILO, trade unions and the climate and environmental justice movement, our research identifies four justice principles, and associated rights, that need to be considered and applied to ensure an economically and socially just transition between countries and social groups within countries:

Recognition-based justice requires that the rights, concerns of, and injustices experienced by, affected marginalized economic and social groups are recognized and addressed.

Procedural justice requires that affected people have a meaningful say in the design and implementation of transition policies and projects, including the right to Free and Prior Informed Consent, to freedom of association, to organize and to protest, among others.

Distributional justice requires a fair distribution of the responsibilities, costs and benefits of climate/energy action across different economic and social groups and protects the right to life, right to land, decent work, a healthy and clean environment and health and safety, among others.

Remedial justice requires that people and communities negatively affected by the energy transition are fairly compensated. These issues are critical to workers, communities, and all people affected by the climate crisis and energy transition but often neglected or ignored.

The research finds indications that the energy transition is beginning to generate positive economic and social co-benefits in some of the surveyed countries. There were also some examples of initiatives that seek to share ownership, governance or benefits with marginalized communities, although still too few and far between. However, the research also uncovers too many examples of transition-related injustices, rights abuses, and environmental damage. Indigenous and rural communities affected by large-scale renewable energy and transition mineral extraction projects are not adequately consulted, and their free, prior and informed consent (FPIC) is not secured.¹ The design of energy projects does not always recognize their potentially harmful effects on indigenous and rural communities, or on the environment on which their livelihoods and culture depends. The costs of, and benefits from, clean energy programmes and policies are unfairly distributed across sectors of society, which worsens pre-existing social and economic

inequalities within countries. There is also a failure to compensate for damage to communities and the environment. Similarly, workers affected by the exit from fossil fuels are not being given an adequate say, social protection, or support such as job-related training to participate in the emerging new green economy.

Women and girls from low-income households can be disproportionately affected by the lack of access to clean and affordable energy in lower-income countries as, for example, they are primarily responsible for reproductive work such as fuelwood collection and bear the public health effects of inefficient cooking devices. Men greatly outnumber women in clean energy-related jobs and are often paid more for the same type of work. Not only are the negative impacts of energy projects on Black, Indigenous, and other people of colour, and ethnic minorities often ignored, but also their roles as knowledge holders, innovators, and leaders in developing energy policies and programmes.

The wider research literature also finds signs of 'carbon colonialism', whereby companies from high-income countries, international institutions, corporations and other organizations seek to achieve 'carbon-neutral' consumption in their home countries at the expense of social and ecological costs in low- and middle-income countries. This can be through mechanisms such as carbon offsets, the dominance of loans rather than grants, inadequate remuneration or recompense for the exploitation of land, transition minerals and other resource extraction, and unfavourable terms of trade.

History shows that systemic socio-technical transitions are possible. But ensuring that the current energy transition is fast, just, and transformative will require, among other things, a shared vision and mutually reinforcing strategies by multiple actors across different sectors to build a constituency for change to counter the power and resistance of incumbent interests, influence the policies and practices of governments and corporates, and develop, spread and scale just energy solutions.

Governments have a vital role to play in resetting the rules of the game, investing in green infrastructure, providing an enabling policy environment and financial incentive structuring, and ensuring that clean energy initiatives adhere to just transition principles and human rights. Donors, private investors and companies will also play an important role in financing and implementing clean energy solutions. Social movements, other civil society organizations (CSOs) and consumers can also help define the speed, shape and contours of energy transition and ensure just outcomes and are already doing so in some of the surveyed countries.

Whether the transition contributes to both a fairer – as well as greener – world will depend on whether we all – governments, companies, and civil society practitioners – put justice and rights, at the heart of the transition.

INTRODUCTION

The indelible imprints of the climate crisis are ubiquitous in all parts of the globe. Heat waves break temperature records. Uncontrollable wildfires consume suburbs and primeval forests. Harvests fail due to prolonged drought, depleted water sources, or heavy rains. Homes and livelihoods are destroyed due to more intense typhoons and hurricanes. Marine biodiversity is depleted due to ocean acidification, run-off, and rising surface water temperatures. Flooding increases due to more intense rains and rising sea levels from melting ice caps.²

The clean energy transition is vital to mitigate the crisis. This research paper, written by 20 co-authors from Africa, Asia, Latin America, the Middle East, the US and Europe, aims to inform Oxfam, donors, policy makers and practitioners about the implications of the unfolding clean energy transition for lower-emitting, lower-income countries as well as asking how a fast and just transition that simultaneously reduces poverty and inequality might be achieved.

No one is immune from the intensifying impacts of the climate crisis. But lower income countries often suffer the worse impacts despite having contributed the least to the crisis.³ For example, the African Development Bank reported recently that Africa was losing between 5% and 15% of its GDP per capita growth because of climate impacts.⁴ Marginalized social groups in both low- and high-income countries – whether low-income, women, Black or Indigenous – are also often disproportionately affected due to their physical exposure, lack of resources and/or their dependence on agriculture.⁵ Where there is active racial, gender, or class discrimination, or limited government support or infrastructure, it is even more challenging for people to cope with the devastation of the climate crisis.

Experts warn that global greenhouse gas (GHG) emissions must be halved by 2030 and reach zero by 2050⁶ to keep global warming below 1.5°C, and go net negative thereafter to prevent an irreversible climate emergency.⁷ Yet, the latest United Nations Framework Convention on Climate Change (UNFCCC) synthesis report of nationally determined contributions (NDCs) projects a 16% global increase in emissions by 2030 leading to a possible temperature rise of 2.7 degrees Celsius by the end of the century.⁸ According to a UNEP report, even if countries deliver on their 2050 net zero targets, global temperature will still rise 1.8 degrees.⁹ With the window to limit temperature rise to 1.5°C rapidly closing and the probability of runaway climate change increasing, there is growing pressure for countries to cut GHG emissions hard and fast. Yet much of the emission reduction targets of low- and middle income, lesser emitting economies are conditional on funding from high-income, high emitting countries.

Humanity's use of fossil fuels continues to drive the energy crisis, turbo-charged by the relentless pursuit of growth and profit.¹⁰ Energy accounts for 73% of global emissions.¹¹ Without urgent and concrete action to transition to clean energy and reduce energy demand, efforts to limit warming to 1.5C will not succeed and could even result in a warming of 3.2C by 2100,¹² a level never yet experienced. Switching from polluting fossil fuels to clean and renewable energy sources, promoting more efficient energy and resource use, and reducing energy consumption, are all vital elements of this transition.

At the same time, energy is vital for the realization of fundamental human rights, human wellbeing, and development. Fossil fuels have driven the climate crisis and had many other egregious environmental and social impacts. But they have also liberated people from arduous manual labour and underpin many aspects of people's lives: the type of work we do; the food we eat; how we cook, heat and cool our homes; the transport we use; the goods and services we produce and consume; and our health.

Yet around 733 million people around the world live without access to electricity, mostly in Africa and Asia,¹³ and the pandemic and current energy crisis has further reduced access. An estimated 2.4 billion people rely on open fires for heating, cooking and lighting, leading to 4 million deaths a year from indoor air pollution.¹⁴ Nearly 60% of healthcare facilities in 27 sub-Saharan African countries are unable to access reliable electricity.¹⁵ In Central America, an estimated 37% of households do not have access to clean cooking technologies and fuels.¹⁶

As well as reducing carbon emissions, the clean energy transition offers the prospect of important economic, social and environmental co-benefits i.e. benefits other than those from climate mitigation itself.¹⁷ These include improved energy access, health improvements from reduced pollution, savings on fuel bills, strengthened energy security (from energy diversity), new markets, new green livelihoods, opportunities for community-owned, managed and shared benefit energy schemes, reduced time spent on reproductive work, and reduced deforestation.¹⁸

The co-benefits of clean energy and the scale of carbon reduction required to mitigate the climate crisis means that the energy transition, if coupled with a commitment to justice and rights, could simultaneously contribute to achieving universal energy access, other vital Sustainable Development Goals (SDGs), and the reduction of existing inequalities and injustices. Multifactorial analyses of intersectional inequalities – relating to income, class, ethnicity and gender – would help to ensure a just transition across countries and people. But without a commitment to justice and rights, the energy transition risks entrenching or exacerbating existing injustices and inequalities, which will generate public resistance, and slow the transition, with devastating human consequences, particularly for lower-income countries and communities.

The principle of common but differentiated responsibilities and respective capacities, the operating framework of global climate action, states that the responsibility for reducing emissions – and hence the switch to clean energy – lies unequivocally with high-emitting wealthy countries, fossil fuel and carbon-intensive companies, and wealthy individuals who have contributed the most to the climate crisis. According to one calculation, wealthy countries which grew rich on fossil fuels are responsible for an estimated 92% of all excess historical emissions – far above their fair share of CO₂ emissions.¹⁹ An estimated 22 mega fossil fuel projects in the US account for more than a fifth of emissions from potential carbon ‘bombs’ (i.e. big carbon sources).²⁰ The world’s richest 10% of people produce 50% of the world’s emissions, and the wealthiest 1% produce twice as many emissions as the poorest 50%, linked to egregious, excessive luxury consumption.²¹ In contrast, the entire continent of Africa produces less than 4% of global emissions.²² In line with the polluter pays principles, high emitters also have a responsibility to provide climate finance to low-emitting countries for mitigation, adaptation, and loss and damage.

Yet while rich countries are primarily responsible for mitigation, the transition to clean and renewable energy sources also has major, but often overlooked, implications – both opportunities and threats – for lower-income countries which this research investigates. This research report seeks to inform Oxfam, donors, policy makers and practitioners about the implications of the energy transition for lower-emitting, lower-income countries and how a just, as well as fast, transition may be achieved; influence funding streams for the just energy transition; inform policy and practice; and provide a foundational understanding from which further depth research or briefing papers may be developed. The research was conducted over 12 months and involved a literature review, interviews and surveys with country teams and partners in 12 countries where Oxfam works.²³ (See Annex 2 for further details of the research method and countries involved). It focuses on renewable energy generation, energy access, exit from fossil fuels, and transition minerals.²⁴

FINDINGS AND DISCUSSION

FINDING 1: THE URGENT NEED FOR A FAST, JUST, AND TRANSFORMATIVE ENERGY TRANSITION

It is widely recognized that a fast energy transition is vital to prevent drastically worsening climate impacts.²⁵ Yet although understanding of the need for a just transition has grown in recent years,²⁶ there are still too many examples of energy policies and projects which narrowly prioritise carbon reduction or efficiency without adequately integrating justice principles. For example, only 36% of 33 surveyed key net zero criteria across 33 standards and voluntary initiatives, including those with offsetting guidance, hold any mention of provisions for climate justice or equity, according to a recent study. But lower income countries often suffer the worse impacts despite having contributed the least to the crisis.²⁷

Additionally, the BHRRC's renewable energy benchmark finds that most major renewable energy companies do not have policies and practices in place to ensure that the minimum international human rights standards are upheld in their operations and supply chains.²⁸ Our research findings confirm why a just, as well as fast, transition is needed.

There are strong ethical reasons for a just energy transition. As well as fairness being an intrinsic human value, a just transition is needed to help reduce poverty and inequality and avoid the entrenchment and exacerbation of existing tragic and egregious injustices. Research shows that lower-income countries and marginalized social groups such as women, Indigenous, Black, minority groups and young people may experience a number of climate related injustices. They may be worst affected by the climate crisis, even though they have contributed the least to it.²⁹ They may have little say over climate or energy policies and projects that affect them. They may pay more for climate and energy responses as a proportion of income, or have their rights ignored or be negatively affected in other ways. They may receive little or no compensation for loss and damage from climate impacts or for harms from climate or energy responses.³⁰ The situation is often worse where multiple intersectional vulnerabilities exist, such as rural women who are also living with disabilities and are elderly (Box 1). As our research shows the energy transition has the potential to either exacerbate or reduce such injustices.

Box 1: Examples of how existing inequalities influence energy transition

Existing social and economic inequalities affect who benefits and loses from the energy transition. For example:

- Low-income countries, marginalized communities and households are often unable to share the benefits of clean energy policies and programmes because they cannot afford the investment costs (e.g., in solar PV).
- Gender-based discriminatory practices, roles, sociocultural norms, myths and laws affect the ways women and girls in all their diversity will benefit from the energy transition. For example:

- Women and girls suffer the brunt of lack of access to clean and affordable energy in low- and middle-income countries – such as time spent collecting firewood and the public health effects of inefficient, polluting cooking devices – as they are primarily involved in reproductive work.³¹
- In many rural contexts, women are responsible for growing food for their family and for income, so land grabs – whether for renewable energy or transition mineral extraction, or fossil fuels – puts women’s livelihoods and food security in jeopardy.³²
- Men greatly outnumber women in green energy-related jobs and are often paid more for the same type of work.³³
- Racism can mean that not only are the negative impacts of energy projects on Black, Indigenous, and people of colour not recognized, but that their roles as knowledge holders, innovators and leaders in developing climate responses and energy policies and projects are underutilized or ignored.³⁴
- Gender non-conforming people and other traditionally recognized third genders can also face specific vulnerabilities, such as legal barriers to express their voice in political processes. Yet they have held important environmental roles in certain cultures and are a source of knowledge within certain ecofeminist analyses, such as queer ecology.³⁵

There are strong strategic and practical reasons for a just energy transition. A just transition will help governments improve energy access, meet other SDGs, and reduce poverty and intersectional inequalities which will, in turn, garner greater public support for and hence speed up the transition. Conversely, an unjust transition will tend to undermine and deny people their rights which will, in turn, generate public resistance and political backlash, thereby slowing the transition. Studies show that as the clean energy transition proceeds, it is beginning to generate resistance (although to a lesser degree than continued investments in fossil fuel energy infrastructures).³⁶ There are examples of indigenous and other communities blocking, and governments suspending, transition mineral extraction projects due to a lack of meaningful consultation, land grabs, and/or pollution.^{37,38}

National courts have also halted energy policies and programmes that do not comply with climate change and human rights obligations, including free, prior and informed consent (FPIC).³⁹ As well as slowing the transition, such resistance can incur heavy financial costs for investors and companies. Similarly, unjust energy practices can negatively affect the reputation and share prices of large investors and companies. More widely, some political leaders from low- and middle-income countries are resistant to undertaking carbon reduction unless the promised carbon reductions and climate finance are forthcoming from rich countries. Some African countries are even planning large investments in fossil fuels in response to rising prices and increased European demand for gas, and lack of finance for renewables.^{40,41}

A just transition that protects rights is required by international conventions and domestic laws, including, for example, the principles of common but differentiated responsibilities established in the United Nations Framework Convention on Climate Change (UNFCCC), and international human rights conventions, such as the UN Guiding Principles on Business and Human Rights,⁴² the 2015 Paris Agreement on Climate Change,⁴³ the ILO Guidelines for a Just Transition,⁴⁴ and the UN Declaration on Rights of Indigenous Peoples,⁴⁵ among others. Additionally, a recent UN expert group has included in its recommendations that the net zero transition plans of non-state entities, including companies, should support a just transition. For example, the group states that ‘transition plans must consider and address the broader social consequences and impacts of mitigation actions, including on race, gender and intergenerational equity’.⁴⁶

Our research identified **four core justice principles** and related rights from the literature that need to be considered to ensure an economically and socially just energy transition, at the international, national and intergenerational levels.^{47,48}

- **Recognition-based justice** requires that the rights, concerns of, and injustices experienced by, affected marginalized economic and social groups are recognized and addressed.
- **Procedural justice** requires that affected people have a meaningful say in the design and implementation of transition policies and projects, including the right to FPIC, to freedom of association, to organize and to protest, among others.⁴⁹
- **Distributional justice** requires a fair distribution of the responsibilities, costs and benefits of climate/energy action across different economic and social groups and protection of the right to life, an adequate standard of living, health, and access to land, among others.
- **Remedial justice** requires that people are fairly compensated for any harm resulting from energy projects or for loss and damage from climate change.⁵⁰

The research also highlights the need for a **transformative transition**. A fast and just energy transition will require governments and corporations to also make radical reforms to the core structural elements of the dominant extractive and growth-orientated economic model that drive the climate and inequality crises (see checklist in Annex 1). It will also entail wider economic, social, cultural and technical changes to our production and consumption patterns as fossil fuel use underpins many aspects of people’s lives – including the food we eat, how we heat, cool and light our homes, the transport we use, and the goods and services we buy.^{51,52} Additionally, the limited window of time left to prevent catastrophic climate change and mass extinctions means that wealthy countries will need to reduce energy and resource consumption by high-emitting individuals and sectors, alongside the switch from fossil fuels to clean energy and improved energy and resource efficiency.^{53,54} Such wider changes will require societal consultation, including with those disproportionately impacted by the climate crisis, such as women and marginalized social groups. A feminist transformative approach would help ensure that the transition is just and transformative and provide important assessment benchmarks.⁵⁵

FINDING 2: THE CLEAN ENERGY TRANSITION OFFERS IMPORTANT OPPORTUNITIES BUT ALSO POSES SIGNIFICANT THREATS AND CHALLENGES FOR LOWER-EMITTING, LOWER-INCOME COUNTRIES

The energy transition has significant implications for lower-emitting, lower-income countries for the reasons outlined below.

Global pressures to reduce carbon emissions. The escalating climate crisis intensifies the pressure on all countries – not just high-emitting countries – to reduce emissions. Wealthy individuals in some emerging middle-income countries account for an increasing share of global emissions. By 2020, East Asia (mainly due to China and India) had surpassed North America as the most significant annual contributor to global emissions. By 2030, Chinese citizens will be responsible for almost a quarter (23%) of the emissions of the wealthiest 1%, US citizens for a fifth (19%), and Indian citizens for a tenth (11%).⁵⁶ Additionally, some lower-emitting countries are reducing their emissions and transitioning to clean energy to demonstrate moral leadership or catalyse carbon reduction by the big emitters. For example, small island lower-income states (SIDS) like Antigua, Barbados and Vanuatu have submitted ambitious NDCs, even though their emissions are almost negligible.⁵⁷ However, as discussed below, lower-income countries face various constraints and trade-offs, including lack of finance, which slows the energy transition.

The opportunity for a just transition. Despite being low emitters, the significant declines in renewable energy costs, combined with the volatility of, and recent spikes in fossil fuel prices,

enhance the attractiveness of renewable energy as a secure, clean, and increasingly affordable energy source for lower-income countries. A growing number of lower-income countries and actors see the energy transition as an opportunity to simultaneously reduce carbon emissions and harness its multiple economic, social and health co-benefits to improve energy access and security, and contribute to other important SDGs.^{58,59} Rising gas prices and the cost of renewable energy storage costs in the short term, and the rising costs of transition minerals in the longer term, may partially counteract the effects of falling renewable energy prices. However, renewable energy is predicted to become cheaper than fossil fuels across all applications, and the cost of storage technologies, such as batteries, are anticipated to fall dramatically.⁶⁰

The threat of an unjust transition. Global investment in renewable energy is increasing and national and international financiers and companies are increasingly investing in lower-income countries.⁶¹ Additionally, the world is predicted to need a six-fold increase in transition minerals – such as cobalt, copper, lithium, manganese, nickel, graphite and zinc – to meet net-zero targets by 2050.⁶² These trends will significantly increase the demand for land, resources, water and labour in lower-income, mineral-rich countries. While these trends could provide countries with valuable economic opportunities, without adherence to the just transition principles outlined in this paper and their associated rights,⁶³ such investments – whether public or private – could have profound negative impacts on marginalized communities and groups.⁶⁴ As this research highlights, despite its potential benefits, low-emitting countries, and communities in low- and middle-income countries face a real and present threat of an unjust transition where, for example, high-emitting wealthy countries, individuals, large corporations and the wealthiest men capture the benefits, and the costs are pushed onto marginalized and historically disadvantaged groups.

Such threats are as much about the denial of rights as they are about the unfair distribution of costs and benefits. As this research shows, there is already evidence of resource and land grabs and human rights abuses related to mega-renewable energy generation projects and the extraction of transition minerals.⁶⁵ For example, when land is expropriated in South Africa, mining-affected communities and environmental activists have been and continue to be threatened, silenced, and in the worst cases, assassinated for standing up for the right to say no to such projects. Such experiences come on top of previous traumatic experiences suffered by communities during early colonialism and the transition to democracy.⁶⁶ The transition also entails various financial, political, economic and technical challenges and trade-offs which affect lower-income countries (see Finding 5).⁶⁷

FINDING 3: THE SPEED OF TRANSITION IN LOWER-EMITTING, LOW-INCOME COUNTRIES WILL DEPEND LARGELY ON INTERNATIONAL CLIMATE FINANCE AND INVESTMENT

Lower-income countries bear a far lower responsibility for the climate crisis and hence for reducing carbon emissions than wealthier ones due to historic and current emissions. Based on the World Bank's income classification, eight of the 12 surveyed countries (Bangladesh, the Philippines, Cambodia, Indonesia, Kenya, Nigeria, Zimbabwe and the Occupied Palestine Territory (OPT)) are lower middle-income economies. The remaining four (South Africa, Mexico, Colombia and Lebanon) are upper middle-income economies. Nine of the countries barely accounted for 1% of global GHG emissions, except for Indonesia, South Africa and Mexico. Indonesia, which accounts for 3.48% of global emissions, is the fifth-largest emitter, largely because its forests and carbon-rich peatlands are being converted to agro-industrial uses.⁶⁸

Despite their lower responsibilities, the Philippines, Cambodia, Colombia and Zimbabwe have set their emissions reduction targets at 40% or more by 2030 (albeit in relation to different baselines).

For some countries, cutting emissions deeper and faster than their historical share justifies is a demonstration of moral leadership and positions them for the potential benefits of the clean energy transition. In contrast, Indonesia’s target has barely changed from their 2015 pledge, while Mexico has set more conservative targets for emission cuts recently. Indonesia has a thriving oil, gas and coal industry, while Mexico has huge oil and gas reserves and significant coal investments. The global pressure to cut emissions has presented these two countries with a difficult trade-off in terms of increasing ambition while protecting incumbent industries and their revenues.

As Box 2 indicates, international financing will be critical to enable many of these countries to achieve their mitigation and co-benefit ambitions, in addition to adapting to the impact of the climate crisis and remedying loss and damage. The upfront costs of achieving emission targets for some countries are too costly to justifiably bear alone. Except for Colombia, the emission targets of the 12 countries are conditioned on international financing to a greater or lesser degree. For instance, reducing Bangladesh’s emissions to 22% by 2030 is estimated to cost \$175.9bn.⁶⁹ According to a recent UN backed report, developing and emerging countries excluding China will need climate finance well beyond \$2 trillion annually by 2030 if the world is to stop the global warming juggernaut and cope with its effects, a trillion dollars of which should come from rich countries, investors and multilateral development banks.⁷⁰

Box 2: Emission targets and affected industries

Countries	Income classification	% share of GHG	Emissions reduction targets by 2030 (%)/base year	% of target conditional on finance and external support	Key sectors for emission cuts
Bangladesh	Lower middle-income	0.45	22/2012	15	energy, transport, industry, agriculture, forestry and other land use (AFOLU), and waste
The Philippines	Lower middle-income	0.48	75/2020	72	AFOLU, waste, industry, transport, and energy
Cambodia	Lower middle-income	0.14	41/2015	100	AFOLU, waste, energy, and reforestation
Indonesia	Lower middle-income	3.48	26/2020	41	AFOLU
Kenya	Lower middle-income	0.15	32/2016	87	AFOLU and energy
Nigeria	Lower middle-income	0.73	20/2010	47	Economy-wide
South Africa	Upper middle-income	1.06	20-33/2015	100	Transport, agriculture, and energy
Zimbabwe	Lower middle-income	0.24	40/2017	100	Economy-wide
Colombia	Upper middle-income	0.55	51/2014	0	AFOLU, energy, and transport

Mexico	Upper middle-income	1.42	36/2011	61	Transport and power generation
OPT	Lower middle-income	0	17.5-26.6/2011	100	Energy, AFOLU, transport, waste, and industrial
Lebanon	Upper middle-income	0.07	31/2015	80	Energy

Source: UNFCCC (n.d.)⁷¹

The International Energy Agency IEA estimates that global clean energy investment globally stands at US\$ 1.3 trillion today and is projected to rise to US\$ 2 trillion by 2030. Although a significant increase, this scale of investment is still US\$ 2 trillion short of the \$4 trillion needed to stay on track with net zero emissions scenario.⁷² But while global investment in renewable energy is growing, it is unequally distributed. The IEA also estimates that emerging and developing economies outside China account for only one-fifth of the global clean energy investment.⁷³ And between 2000 and 2020, only 2% of global renewable investment occurred in Africa, despite the continent's enormous renewable energy potential and its need to bring modern energy to millions of citizens that still lack access.⁷⁴

Emerging and lower income economies currently still rely heavily on public sources of finance for energy investments from western governments and international financing institutions (IFIs). Yet, as Oxfam has noted, wealthy governments are expected to fall \$75bn short of fulfilling the pledge to mobilize and deliver \$100bn annually from 2020 to 2025 to help vulnerable countries adapt to climate impacts and reduce their emissions.⁷⁵ Some recent developments have engendered guarded optimism among some low- and middle-income countries. The US has guaranteed to double its annual public climate finance and triple its adaptation finance by 2024, although it had only delivered \$1bn by 2022.⁷⁶ France, Germany, the UK, the US and the EU have pledged to mobilize an initial \$8.5bn through various mechanisms to accelerate the decarbonization of South Africa's economy and help it achieve its emission reduction target.⁷⁷ These same countries are also negotiating several additional just energy transition partnerships with Vietnam, Indonesia, India and Senegal, which combine official development assistance, private (likely the bulk of financing), and philanthropic funding. The US and China have also pledged to scale back their investments in carbon-intensive fossil fuel-based industries.

IFIs also provide loans to support energy transition activities in middle- and higher-income countries. For instance, in early 2022 the African Development Bank (AfDB) approved an investment of \$164m to promote decentralized renewable energy in Ghana, Guinea, Ethiopia, Kenya, Nigeria and Tunisia.⁷⁸ In South Africa alone, AfDB has pledged a finance package of \$400m to the electricity provider as it transitions to renewable energy.⁷⁹ However, as IFIs provide loans rather than grants, they risk miring countries deeper in debt to pay for a problem they did not create. 54 countries already have a debt crisis.⁸⁰ Public finance is vital to spur a just transition away from polluting fossil-fuel investments, yet many IFIs, such as the Asian Infrastructure Investment Bank (AIIB), continue to fund such investments.⁸¹

But it is not just the quantity, source and type of finance that matters; it is also who can access it, its terms and what it is used for. Reportedly only 13 African countries are accredited to the UNFCCC Green Climate Finance Fund (GCF): a mere 18% of its financing in 2019 went to the poorest countries, while 65% went to projects in middle-income countries like Mexico or India.^{82 83} Low/zero-interest loans and grants are vital to enable developing economies to finance upfront transition costs and prevent them from becoming mired in debt. Yet grants only provided an estimated 26% of public finance from 2016-20.⁸⁴

The private sector is predicted to play an important role in the energy transition, including in scaling up renewable energy. Various private financing instruments exist that could potentially be deployed

for clean and renewable energy development projects, such as green bonds, sustainable bonds, mortgages and credit cards.⁸⁵ But it can also impose significant costs and injustices if private finance is in the form of high-interest loans or if companies and investors do not abide by just transition principles and human rights.⁸⁶

The lack of finance for the energy transition in lower-income countries has been made starker by, and can be contrasted with, the huge subsidies still being extended to fossil fuel industries. An IEA estimate showed that global public subsidies by major economies for fossil fuels almost doubled to \$700bn in 2021 as governments dealt with surging energy prices.⁸⁷

As well as seeking to mobilize international grants and concessionary loans, upper-middle income or higher-emitting countries like Indonesia, Mexico, Colombia and South Africa could also raise progressive sources of domestic finance. The latter could be financed, for example, from: avoided costs for fossil fuels such as subsidies, construction and mining; progressive taxation of wealthy and high-emitting individuals and companies; government-backed green bonds; low-cost credit from national development banks, rural banks and other domestic financing institutions; and equity investments.

FINDING 4: CRITICAL DOMESTIC DRIVERS AND CONSTRAINTS INFLUENCE THE LIKELY SPEED AND NATURE OF THE TRANSITION

In addition to finance, this research revealed several energy-related domestic economic, political and technical drivers and constraints among the 12 surveyed countries that influence the likely speed and nature of the energy transition (Box 3).

Box 3: Key energy issues identified in the surveyed countries

Energy transition issues	Countries
Renewable energy (including mega renewables)	The Philippines, Cambodia, Kenya, Nigeria, Colombia, Mexico
Energy access	OPT, Zimbabwe, Lebanon, Indonesia, Cambodia
Energy security	Lebanon, OPT, Zimbabwe
Fossil fuel reliance	The Philippines, Indonesia, Cambodia, Kenya, Nigeria, Colombia, Mexico
Transition minerals extraction	Zimbabwe, South Africa, the Philippines, Mexico, Indonesia

Renewable energy. In recent years the plunge in renewable energy prices,⁸⁸ spike in global gas prices, geo-political tensions, and the potential for local, decentralized production have made renewable energy an increasingly attractive proposition for countries seeking to improve their energy access or security.

In some countries, such as Colombia (95%) and Kenya (85%), renewable energy is a significant part of the energy supply. In the Philippines, a substantial share of the primary energy supply (36.5% in 2015) is due to the long-standing use of geothermal and hydro resources for electricity generation and the use of biomass by the industrial and residential sectors.⁸⁹

But switching to renewable energy can also entail other constraints, including a continued reliance on fossil fuels in some countries (see below), a reluctance to adopt new technologies, and perceived or real high investment costs for renewable energy combined with a lack of grant or low-cost finance, and storage costs. For example, progress on cleaner and more efficient means of cooking has not been quick, although the latter has made some ground in recent years. Yet,

renewable energy costs are already cheaper than fossil fuels in many situations and are predicted to become cheaper than fossil fuels across all applications. The costs of key storage technologies, such as batteries and hydrogen electrolyzers, are also expected to fall dramatically.⁹⁰

Energy access. Energy poverty is an important driver of the energy transition for some of the 12 surveyed countries. Lack of access to affordable, sustainable and reliable energy⁹¹ is still a significant challenge in many lower-income countries, undermining development efforts and worsening inequality. At a time when the clean energy transition is rightly in the headlines, there are countries where electricity access, regardless of the source, remains woefully inadequate. Indeed, in Zimbabwe's case, energy 'progress' to improve energy supply, rather than energy 'transition', more accurately captures the country's current dynamics. Although countries can use fossil fuels to improve energy access, the falling prices of renewable energy, its co-benefits and decentralized nature make it an increasingly attractive way of doing so and of reaching remote or underserved communities. The research also uncovered efforts in some countries to use renewable energy to both improve access by, and share ownership, or co-benefits with, marginalized communities (see Finding 5).

Many of the 12 countries have relatively high national levels of energy access compared with other lower- and middle-income countries, but closer examination reveals stark inequalities and challenges. For instance, fuelwood and other biomass account for a disproportionately large share of Zimbabwe's (61%) and Cambodia's (44%) unreliable energy mix, contributing to deforestation and the drudgery of unpaid care and domestic work for women and girls. Roughly 3% of Bangladesh's population (5 million people) still rely on kerosene lamps for lighting homes, with damaging health implications, especially for women.⁹² In Nigeria, roughly 43% of the population (85 million) have no access to grid electricity, meaning the country has the largest energy access deficit in the world.⁹³

In Cambodia, which has the lowest electrification rates in South-East Asia, only 60% of households are connected to the grid due to high electricity tariffs.⁹⁴ Indonesia reduced the number of people without access to electricity from around 100 million in 2000 to about 23 million in 2016, which represents 55% of the net decrease in people without access across South-East Asia since 2000.⁹⁵ However, in some provinces (e.g., East Nusa Tenggara and Papua), fewer than 61% of households have access to electricity.⁹⁶ In Zimbabwe, access to electricity ranges from 16-40% in rural areas and is 78% in urban areas.⁹⁷ Its power lines have been hit by daily power outages as the government struggles to raise capital to finance new power stations. This has prevented the development of rural areas and impeded the delivery of essential services.

Energy security. The need to strengthen energy security can be another potential driver of the switch to clean energy. The volatility of global fossil fuel prices, geo-political tensions, and the scope for diversifying domestically produced energy sources make renewable energy an increasingly attractive proposition for countries needing to improve their energy security. Nigeria, for example, needs more than 10 times its current electricity output to guarantee supply for its 198 million people.⁹⁸ QPT relies on Israel for 100% of its fossil fuel imports and 87% of its electricity imports.⁹⁹ Similarly, about 90% of Lebanon's primary energy supply is imported, and has been frequently disrupted due to the highly volatile security situation in the region.¹⁰⁰

Continued reliance on fossil fuels. While the 12 countries have aspirational targets to increase the share of renewables in their energy mix, the scale of their dependence on fossil fuels for energy access and revenues, combined with lack of affordable finance for the energy switch and related absence of economies of scale,¹⁰¹ means that it may take years before fossil fuels can be displaced. In Indonesia, for example, coal capacity is projected to increase until 2027, which will mean coal will constitute 64% of electricity generation by 2030 when, according to the NDC, it should be reduced to 10% by 2030.¹⁰²

Some resource rich governments are arguing for continued fossil fuel production from a justice and equity perspective to preserve the revenues for development. However, some African civil society organisations counter that the extraction of fossil fuel revenues has largely been for export driven for the benefit of the consumption needs of the global north, rather than the continent.¹⁰³ An

ongoing challenge is the narrative that natural gas is a ‘bridge technology’ and a ‘transition fuel’. Yet globally, the expansion of natural gas infrastructure hinders the ability to achieve urgent climate targets by locking in carbon-intensive production, delaying the transition to renewables, and creating the economic risk of stranded assets.¹⁰⁴

The scramble for transition minerals. Until recently, the energy sector has represented a tiny fraction of the demand for critical minerals, but it is expected to skyrocket in parallel with the need for clean energy technologies across the globe. Meeting the Paris Agreement goals will require clean energy technologies’ share of total demand for minerals to rise over the next two decades to over 40% for copper and rare earth elements, 60–70% for nickel and cobalt, and almost 90% for lithium. Electric vehicles and battery storage have already outpaced consumer electronics to become the largest lithium user and are set to take over from stainless steel as the largest end-user of nickel by 2040.¹⁰⁵ The clean energy transition will increasingly depend on many lower-income countries to supply such critical minerals. A World Bank report suggests that the production of critical minerals – such as graphite, lithium and cobalt, to name a few – could increase by nearly 500% by 2050 to meet the growing demand for clean energy technologies. Over 3 billion tons of minerals and metals will be required to deploy wind, solar and geothermal power, as well as the energy storage required for achieving a below 2°C future.¹⁰⁶

The growing demand for transition minerals has already fuelled a rush in mining fields in South Africa for manganese – a critical component of low-carbon technologies such as batteries, wind turbines and electric vehicles for foreign companies like Panasonic, Samsung, Volkswagen, BMW and Toyota.¹⁰⁷ Newly discovered lithium reserves in Sonora, Mexico, are said to be the largest deposit in the world. With three minerals vital to renewable energy technology – copper, manganese, and zinc – in operation, Mexico is set to become one of the most important suppliers of transition minerals over at least the next decade and a half. The absence of social and environmental safeguards on extractives has raised considerable concerns about who benefits and loses from the extraction of minerals in countries (see Findings 5 and 6, and Box 4). To date, the Business and Human Rights Resource Centre (BHRRC) has documented 495 allegations of various human rights violations by 103 companies mining cobalt, copper, lithium, manganese, nickel and zinc in different parts of the world between 2010–2021.¹⁰⁸

FINDING 5: THE ENERGY TRANSITION ENGENDERS CRITICAL JUSTICE AND RIGHTS ISSUES IN LOWER- AND MIDDLE-INCOME COUNTRIES, YET THEY ARE OFTEN IGNORED

A core aim of climate justice is to ensure that those responsible for the climate crisis and climate responses reduce or avoid the perpetuation of harms and injustices, but where unavoidable, recognize and remediate them. This, in turn, entails protecting the rights of affected people, which imposes corresponding duties on governments, financiers and companies. But a just transition can also help reduce injustices.

The term ‘just transition’ has been used by trade unions, the ILO¹⁰⁹ and others to address actual and potential injustices faced by workers affected by the clean energy transition, both in the old fossil fuel sector and the new green economy, relating to decent and secure jobs, wages, consultation, social protection, and retraining. Building on and broadening their crucial work, the literature review and research with country teams¹¹⁰ identifies four elements of justice – recognition, procedural, distributive, and remedial justice – that need to be considered at international, national and intergenerational levels for just climate change mitigation and energy transitions.¹¹¹ The issues discussed below are critical to workers, indigenous and rural communities, marginalized social

groups, and all affected peoples. Yet our research indicates that they are ignored or rejected outright in too many cases.

Recognition-based justice requires that the dignity, humanity, concerns of, and/or injustices experienced by, social groups affected by climate policies and programmes are recognized.¹¹²

Lack of recognition can violate subjects' identity, motivating them to resist and engage in a 'struggle for recognition'.¹¹³ It can also have serious distributional implications if rights and injustices are not recognized and addressed in climate policies and programmes (distributional justice). Indigenous communities, for example, receive a disproportionate share of mega-development projects on their lands, too often without consent or a fair share of benefits. Where lack of opportunity, capability or resources to express dissent intersect with an unwillingness by project proponents to recognize or mitigate the risks, the inevitable result is the exposure of indigenous communities to environmental hazards.¹¹⁴ When communities express opposition, they may be derided as misinformed and an obstruction to development, or face violence, although there is a growing international focus on the defence and protection of human rights and environmental defenders.

We documented various examples of recognition-based justice issues in the surveyed countries. For example, Cambodia, which is transitioning to renewable energy, has 60 possible sites identified for hydropower development in and around the Mekong,¹¹⁵ which could potentially flood 340km² of productive agricultural lands and residential areas, threatening biodiversity in adjacent forests and disrupting fish migration patterns.¹¹⁶ The fear is that the harm to people and nature is not fully recognized or considered in decision making.

Procedural justice requires that affected communities have a say in decisions that affect them. In practice, marginalized groups are unfairly under-represented, or their viewpoints misrepresented in the process of deliberating policies and projects. Patriarchy and racism can prevent voices being heard or taken seriously. Appropriate mechanisms are needed to engage affected groups¹¹⁷ based on complete and impartial disclosure of information by project proponents and the government.¹¹⁸ Properly done, this entails hearing contrarian voices in ways that inform the design and delivery of energy projects and avenues for remediation. It means going beyond perfunctory attendance in consultation meetings by harnessing local knowledge and real-world experiences to improve the design of programmes and make them more relevant to affected communities. In many instances, energy projects are shrouded with opaque bureaucratic processes and legal jargon that local communities may not understand, which prevents communities from meaningfully engaging in the process.

The UN Special Rapporteur on Indigenous Rights noted that some renewable energy contracts in Mexico undermined the freedom of the consultation process and caused divisions and tension within the community. BHRRC has documented human rights abuses by renewable energy companies in communities that have been denied access to adequate information, forcibly silenced through violence or the threat of it, and often simply ignored.¹¹⁹ In Kenya, the Indigenous Peoples fought for the reversal of a large wind energy project, which circumvented the FPIC process and the mandatory compensation for land leases which the Environment and Land Court later declared as 'irregular and unlawful'.¹²⁰ The same lack of consultation with local communities is happening in La Guajira, Colombia, a territory of the Wayuu people and protected as an indigenous shelter by the Constitution. Numerous wind and solar energy proposals were fast-tracked for approval through a Presidential edict without the consent of 248 indigenous communities living in the area.¹²¹

Distributional justice requires a fair distribution of the responsibilities, costs, and benefits of climate/energy action across society and the protection of rights.¹²² This includes ensuring that those countries, institutions, and individuals with the biggest responsibilities and capabilities make the biggest and fastest cuts in emissions, that the costs of climate action are not pushed unfairly onto low-emitting or vulnerable groups, and that its co-benefits¹²³ are shared.

Co-benefits: Clean and renewable energy offers significant potential for countries, communities and households to simultaneously reduce emissions, improve energy access and security, and

generate other economic and social co-benefits such as new markets, new jobs or livelihoods, reduce the time women spend collecting firewood and washing clothes, improved health and well-being, improved delivery of basic services, and better representation for women in decision-making processes (Box 4).

Box 4: Co-benefits of carbon mitigation and the clean energy transition

The main benefit of early and fast decarbonization is to avert the most dangerous impacts of climate change which disproportionately affect vulnerable communities. But a growing body of evidence has also been developing about the economic, social and environmental co-benefits of decarbonization and the clean energy transition.¹²⁴ As the value of co-benefits from decarbonization in many instances is estimated to outweigh investment costs it can make sense for countries, institutions or individuals to unilaterally reduce their carbon emissions,¹²⁵ even if they are low emitters or even if others do not. Yet, although the co-benefits of mitigation should be an important criterion for policy makers, they tend to be neglected.¹²⁶ For a long time the net co-benefits were not quantified, monetized or even identified by decision makers and businesses.¹²⁷ There is also still inadequate consideration of the distribution of co-benefits and there is no automatic reason why lower and middle income countries and marginalised groups will be able to share these benefits, particularly given their financial constraints.

- The Stern Review in 2014 was one of the first reports to demonstrate that the economic benefits of acting now to reduce GHG emissions far outweigh the economic costs of not acting.¹²⁸ A recent study by Oxford University shows that even without accounting for climate damages or climate policy co-benefits, a rapid global green energy transition is likely to result in trillions of dollars of net savings.¹²⁹ Another recent Oxford University report finds evidence that green investments can indeed create more jobs and deliver higher fiscal multipliers than non-green investments and suggests policy makers strongly prioritize green spending in recovery.¹³⁰
- A major report by the Global Commission on the Economy and Climate in 2018¹³¹ states that equitable people-centred climate action could deliver at least:
 - \$26 trillion in economic benefits up until 2030, compared with business-as-usual.
 - Generate over 65 million new low-carbon jobs in 2030, leading to a net employment gain of 37 million jobs.
 - Avoidance of 700,000 premature deaths from air pollution in 2030.

When renewable energy is used to help improve people's access to safe, clean and affordable energy services it can, among other things, help:

- Boost the productivity of home-based enterprises and women-led social enterprises, while increasing the likelihood that children, particularly girls, will finish school, and that women will work outside the home¹³² and participate in public life and decision-making processes.
- Contribute to universal access to clean cooking which, according to the IEA, could avoid 1.8 million premature deaths per year in 2030, free up billions of hours of work time, and improve livelihoods for hundreds of millions of women.¹³³

Our research identified some important co-benefits emerging in some of the 12 surveyed countries. In the Philippines, renewable energy has reduced prices by nearly 30%, creating savings for consumers of around \$360m between 2014 and 2015, and creating about 178,000 jobs.¹³⁴ The number of solar photovoltaic (PV) jobs rose from 33,700 in 2019 to 41,035 in 2020, while jobs from wind power increased to 23,800.¹³⁵ New analysis from Indonesia's Low Carbon Development Initiative (LCDI) spearheaded by the National Development Planning Agency (Bappenas) shows that embracing a pathway of net-zero emissions by the mid-century, starting with a green recovery from COVID-19, could accelerate growth, boost per capita incomes, generate millions of new jobs, reduce air pollution and make Indonesia's economy more competitive, robust and resilient.¹³⁶

However, while the body of evidence about the co-benefits of clean energy continues to expand¹³⁷ they are still often overlooked by policy makers and practitioners. For example, in one case climate-driven efforts to install clean cooking stoves were discontinued when organizers realized their impact on emissions was smaller than initially expected, disregarding the positive by-product that these stoves improved women's and children's health and safety, and reduced the time needed to be spent on reproductive work.¹³⁸

In other cases, a narrow focus on financial gain or carbon reduction, with insufficient attention paid to benefit sharing, means that co-benefits end up concentrated among already advantaged high-emitting countries, companies or individuals. For example, in some of the 12 countries there was evidence that incumbent energy producers were reaping the benefits of the energy transition with little or no benefit to communities. For example, in South Africa the state-owned energy giant Eskom has signed an agreement with its major coal suppliers which will see them develop renewable energy projects, with little evidence of a financial return or benefit sharing with local communities.¹³⁹

The co-benefits of clean energy policy and projects are therefore neither automatically generated nor shared with low-income or marginalized communities and households, but rather require just policy and project design. In Zimbabwe, Nigeria, the Philippines, OPT and Cambodia, Oxfam and partners have pioneered both community-owned renewable energy generation projects and local benefit-sharing partnerships with the private sector that simultaneously decrease carbon emissions, increase energy access, and generate and share other co-benefits with local communities and marginalized groups (Box 5). The challenge remains on how to scale such initiatives, by influencing governments to create an enabling policy and financial framework and by sharing learning with other communities.

Box 5: Examples of just renewable energy solutions in the 12 surveyed countries

Energy solutions identified in the surveyed countries include rooftop solar PV, solar lighting, mini-grids, clean cooking, irrigation pumps and farm machinery.

Local and community-owned and shared benefit renewables energy

- In the Philippines, Oxfam has worked with a local organization, SIKAT, to set up a community-based micro-grid system in off-grid Hilabaan Island. This has recently been turned over to the women's association in the community, which will now manage the power generation, distribution, and maintenance as a social enterprise. The six solar-powered streetlights and off-grid solar-powered system, which sits in the evacuation centre of the island, services 124 households and the local fisherfolk community. Some of the co-benefits for local women include reduced time spent on unpaid care and domestic work, access to affordable and reliable electricity to light their homes, strengthened livelihoods (both from running the cooperative and because home lighting enables evening work), children being able to do more homework by during evening hours, and increased security in the community at night due to lighting.
- In the Philippines and Zimbabwe, local energy projects simultaneously increased energy access and improved production systems, for example, through mechanizing pre- and post-harvest and catch (e.g., land preparation, drying facilities, milling plants, cold-chain storage and processing).
- The OPT case shows that clean, renewable and reliable energy sources can improve the delivery of essential local services such as schools and medical clinics by ensuring electricity runs on a 24-hour basis, even during emergencies. It also ensures food safety through storage of, and safer ways to cook, food. Oxfam projects have also provided off-grid Bedouin communities with solar power and supported people in Gaza to access solar energy.

- In Nigeria, Oxfam, with the support of the EU, initiated a project that increased the resilience of small-scale farmers, fisherfolk and livestock owners to climate change shocks, including improving cook stoves that will reduce emissions and wean local communities away from cutting down trees for firewood.
- In Zimbabwe, Oxfam worked with Practical Action and implemented a solar energy scheme (Gutu District, Masvingo Province) and a micro-hydro project (Mutare District, Manicaland Province) to improve health outcomes, widen access to education, increase production, and boost livelihood enterprises.
- In Kenya's arid and semi-arid lands, Oxfam has been working with NGOs, donors and the private sector to explore inclusive and sustainable outcome-based ways of funding and maintaining solar-powered water pumps to help build the resilience of vulnerable communities to drought. Solar-powered water pumping has significantly reduced the cost of water provision, reduced the frequency of breakdowns and networked sensors enable remote monitoring of borehole functionality.¹⁴⁰

Partnerships with the private sector

- Oxfam and partners in Bangladesh are working with the private sector within the ready-made garments industry to explore financially feasible, low-carbon production systems, which will hopefully be replicated in other industries.
- In Cambodia, Oxfam is working with private sector companies to deliver clean energy solutions that not only reduce emissions but also improve energy access and livelihoods for women and other marginalized groups. Green business hubs have been established to oversee community businesses, including solar micro-grids, using a sustainable and inclusive business model known as P4 (producer, public, private partnerships) such as aquatic vegetables, honey, sustainably farmed rice and crops, and processed fish. Oxfam Cambodia will use the evidence generated to influence the government on an energy transition that is also gender just.¹⁴¹



Ahmad is a date farmer in the Jordan Valley of the Occupied Palestinian Territory. He manages a date plantation and takes care of a new solar water system installed by Oxfam and partner Economic and Social Development Centre (ESDC). The farm has no access to mainland electricity so previously they were using high-cost diesel to power their irrigation pump. Now, the farmers have access to water at all times, their crops are healthier, and they are spending less money on fuel and more on their business and families. © Kieran Doherty/Oxfam

Costs, rights abuses, challenges, and trade-offs. Unjust design and delivery of policies and projects means that some countries and communities face considerable transition-related costs and abuses of rights. In Zimbabwe, hydropower projects are displacing local communities and affecting their livelihoods and are linked to the absence of a comprehensive government land-use policy. In Nigeria, the \$5.8bn Mambilla mega-hydropower project, co-financed by China and the Nigerian government, is expected to displace 100,000 people in Taraba State. It threatens wildlife biodiversity and could potentially cause desertification, drought, deforestation, and have a huge impact on local livelihoods. It could also fan ethno-religious violence due to competition over land.¹⁴² In the Mekong River Basin, the social, ecological and economic costs of mainstream hydropower dams are well documented and are estimated to have an impact on the lives of 65 million people, and are a consequence of the uneven power relations between local peoples and national and regional governing bodies.¹⁴³ More widely, the Business & Human Rights Resource Centre has recorded over 200 allegations linked to renewable energy projects in the last 10 years. Almost half of these (44%) are from the wind and solar sectors. Abuses include land and water grabs, violation of the rights of Indigenous nations, and the denial of workers' rights to decent work and a living wage.¹⁴⁴

While the energy transition is expected to lead to more jobs in some sectors (renewables) it will also involve losses in others (fossil fuels), including in their ancillary industries and value chains. The new jobs in the energy transition are not expected to be in the same places where job losses are incurred.¹⁴⁵ Indonesia's net-zero roadmap to phase out coal-fired power by 2060 has raised considerable concern within labour unions on what this means for the 1.2 million workers dependent on coal mining.¹⁴⁶ The Congress of South African Trade Union (COSATU) has developed a Just Transition Blueprint for Workers for the coal-energy value chain, agriculture and transport which can drive a transition that provides policy prescriptions, collective bargaining and other tools for unions to ensure that the energy transition will serve and not harm the interests of workers.¹⁴⁷ A truly fair energy transition would secure the future and livelihoods, which guarantees decent jobs, security, social protection, and training opportunities for affected workers, including equal-access training and job access for women.

Such guarantees require dialogue involving unions, communities, government, and corporate sectors throughout the transition process.¹⁴⁸ Additionally, the skills needed in fossil fuels and ancillary industries are different from those for the renewables industries, and therefore, efforts to absorb dislocated workers need to include skills retooling and job retraining. In the Philippines, a significant number of workers in coal mine towns in Zamboanga-Sibuguey Province have not worked in any other jobs other than mining.

In relation to transition minerals, the 495 allegations of human rights violations involving 103 companies mining cobalt, copper, lithium, manganese, nickel and zinc in different parts of the globe documented by BHRRC between 2010 and 2021¹⁴⁹ include several cases of illicit financial flows, tax evasion, and alleged violations of environmental law and workers' rights in Zimbabwe, including Bikita Minerals (lithium), Mopani Copper Mines (copper), and Vedanta Resources (copper). None of the lithium mining companies assessed by BHRRC have human rights policies.

Other transition-related economic costs experienced by the countries include: regressive financing mechanisms (Zimbabwe and Kenya); possible loss of export revenues from fossil fuels (Nigeria, Kenya, Indonesia and Colombia); regressive domestic financing mechanisms which mean that low-income households will bear a disproportionate burden of transition costs (Zimbabwe and Nigeria); and loss of earnings from, for example, sales of wood (Zimbabwe, Nigeria and South Africa).

For many lower-income countries, a key challenge concerns how to balance the trade-offs between energy security, equity and sustainability, given the important role of energy in ensuring people's wellbeing.¹⁵⁰ Some countries have large reserves of oil and gas that they wish to develop and sell.¹⁵¹ As such, they are caught between the global pressure to reduce emissions, the need for revenue from fossil fuel production and the future prospect of being left with stranded assets. They may also face other technical and financing challenges relating to the need for integrated grids and storage.

In some countries there is competition over land use: for example, food farms and environmental services versus solar farms; fishing versus micro-hydro; offshore wind versus offshore fishing. In 2019, up to 200,000 workers were employed in South Africa’s coal mines, coal power plants and coal transport, equivalent to roughly 1% of formal employment in 2020.¹⁵² In Zimbabwe and Kenya, fuelwood or charcoal remains the primary cooking source and an important income source for women and men in rural areas. This highlights that there are poor people at the bottom of these lumbering industries, and they must have social protection, safety nets or other sources of livelihood when these industries inevitably crumble.

Remedial justice requires that negatively impacted people are compensated. For example, wealthy high-emitting countries should provide finance for mitigation and adaptation, as well as for loss and damage experienced by lower-emitting, generally poorer countries or communities that often suffer the worse from climate change impacts.¹⁵³ Companies need to ensure that local communities receive adequate benefits or compensation from renewable energy initiatives or the extraction of transition minerals on their land. Social protection and new sources of livelihoods also need to be provided for people who lose jobs in fossil fuel industries. Companies must implement remediation plans to adequately clean up the environment, compensate for damage and bring back livelihoods to such host communities.

Nigeria’s Mambilla mega-hydro project, for example, has no visible safeguards about how costs will be mitigated and affected communities compensated. In terms of climate justice more widely, remedial justice suggests the need for reparations from wealthy high-emitting countries and individuals to low-emitting countries and communities for loss and damage from the climate crisis.

Box 6 provides a summary of the national-level issues identified in the research.

Box 6: Summary of national-level justice issues identified in surveyed countries

Types of justice	Identified justice and rights issues	Countries where present
Procedural justice		
Free, prior and informed consent (FPIC)	Absence of FPIC for various government or private sector energy policies and projects, relating to mega renewables, exit from fossil fuel sector and transition minerals extraction.	Examples found in all surveyed countries except OPT and Lebanon.
Transparency and consultation/seat at the decision-making table	Lack of transparency and access of information about energy options, policies and programmes. Absence of consultation and seat at the decision-making table for affected people for transition generally, and particularly relating to mega renewables, exit from fossil fuel sector and transition minerals extraction.	Examples found in all surveyed countries.
Recognition justice		
Recognition of existing injustices/rights abuses and avoidance of new ones	The concerns of, and injustices experienced by, social groups affected by climate policies and programmes are not recognized, avoided or addressed.	Examples found in all surveyed countries.

Distributive justice		
Responsibilities to reduce emissions	Polluting sectors, companies and wealthy individuals in higher middle-income countries are not undertaking their fair share of carbon reduction.	Examples found in the Philippines, Indonesia, South Africa and Mexico.
Co-benefits	Identified co-benefits from renewable energy schemes include: improved understanding of advantages of renewable energy options; improved energy access; strengthened energy security; new income-earning assets; new green jobs; improved health (reduced air pollution); reduced deforestation and time spent by women collecting wood; financial savings on fuel bills and strengthened livelihoods; improved school performance (additional time in the evening for homework); and improved communications. (Co-benefits are not automatically fairly shared so do not necessarily reduce energy poverty/inequality, or provide other community benefits, without a justice and rights focus).	Examples found in the Philippines, Cambodia, Indonesia, Nigeria, Kenya, South Africa and OPT.
Costs (negative impacts)	Denial of rights, including: community displacement and dispossession and environmental damage due to land and resource grabs for renewable energy and transition minerals; other related human rights abuses including silencing of human rights defenders via intimidation and sometimes violence; loss of livelihoods or earnings from employment in fossil fuel industries or sales of wood and/or export revenues; lack of social protection or training for redundant workers; land used for mega renewables or mineral extraction displaces food production or other traditional land uses; lack of international finance and regressive domestic financing mechanisms for the transition means lower-income households shoulder an unfair burden of transition costs.	Examples found in Bangladesh, the Philippines, Kenya, Nigeria, Zimbabwe, Colombia. Abuses of rights in all countries except OPT and Lebanon. All countries except Colombia lack international grant-based finance.
Remedial justice		
Compensation/loss and damage	Lack of international finance from rich countries, polluting industries and/or wealthy individuals to support the mitigation, adaptation and loss and damage slows the transition and/or means low-income countries and communities shoulder an unfair burden of costs.	Examples found in all surveyed countries.

FINDING 6: AN EXTRACTIVIST TRANSITION IS A REAL AND PRESENT DANGER LINKED TO NEO-COLONIAL POLICIES AND PRACTICES OF RICH COUNTRIES

The term ‘green colonialism’ has been coined to describe how wealthy governments, companies, international institutions and other organizations implement ‘sustainable development’ policies and actions that take advantage of people and ecosystems in low-income countries. In relation to climate change and the clean energy transition, unequal global power relations allow ‘carbon-neutral’ consumption in high-income countries to continue at the expense of high social and ecological costs in lower-income countries.¹⁵⁴ This can be through lack of fair remuneration for the use of land or extraction of resources (including via land grabs), the dominance of loans rather than grants in climate finance from rich countries, and unfavourable terms of trade and investment. In Kenya, for example, a big part of the energy transition financing is through loans which could sink people deeper into a debt trap than they are now. Kenya’s public debt in 2022 is estimated to have grown to 64.2% of GDP, with the annual cost of debt servicing amounting to almost 54% of domestic revenue, which diverts resources from addressing other pressing needs such as acute hunger from drought.¹⁵⁵



Animal carcass on dry ground in Wajir County, Kenya. © Khadija Farah/Oxfam

Green colonialism is one aspect of broader unequal neo-colonial power relations between wealthy and low-income countries that continue to operate via unfair international debt, aid, and investment rules which developing countries and international civil society have been campaigning to reform for decades. As Oxfam argued back in 2002, international trading and investment rules are ‘rigged’ in favour rich countries.¹⁵⁶ This geopolitical dynamic persists.

One recent study sought to explore how advanced economies continue to benefit from the transfer of wealth from lower- and middle-income countries. It argued that ‘resource drain’ is enough to end

extreme poverty 70 times over, amounting to an estimated \$242 trillion over 25 years.¹⁵⁷ The study showed how, contrary to conventional wisdom, the global south is financing the development of the global north and not the other way around. The value of current aid and debt relief flows from rich countries to developing countries, which invariably comes with strings attached. It comes nowhere near the resources they have taken from the global south historically under colonialism, or currently through an unfair international economic system.

FINDING 7: CIVIL SOCIETY AND SOCIAL MOVEMENTS PLAY AN ESSENTIAL ROLE IN A JUST TRANSITION

While governments and the private sector will play a key role in the clean energy transition, a less recognized but nonetheless key finding from the research is the sometimes disruptive and catalytic role that CSOs, social movements and grassroots organizations play in transition processes.¹⁵⁸ Social movements are often bound by shared 'motivating frameworks' and deploy a repertoire of tactics – such as mass demonstrations, lobbying, and social media campaigning – to mobilize support and resources and meet their objectives.^{159,160}

All the surveyed countries have active social movements – including women and indigenous peoples' rights organizations – pushing for just energy transitions. There is an opportunity for these movements to influence the speed and nature of the transition as well as to demonstrate women's leadership, particularly in the Philippines, Zimbabwe, Kenya, Colombia, OPT and South Africa. In Bangladesh, the Philippines, Cambodia, OPT and Zimbabwe, community-based organizations are piloting scalable solutions to improve access to clean, safe and affordable renewable energy while influencing public policies on lessening dependence on fossil fuels and advocating for pathways towards low carbon futures. However, the political space for civil society and social movements in the countries varies. Where there is restricted civic space, international institutions may be particularly important in helping to provide blended finance and conditions to incentivize the private sector to deliver solutions through inclusive businesses.¹⁶¹

In some low- and middle-income countries, social movements and the CSOs that comprise them have spurred the development of niche innovations and accelerated their uptake by 'organised (horizontal) diffusion' and by influencing government and corporate policies and practices.¹⁶² Further scaling of these initiatives will help influence the nature and speed of the transition, both accelerating it and modelling how it can benefit communities. Civil society has also organized resistance against fossil fuel industries and mega-renewable projects. CSOs in the Philippines¹⁶³ and South Africa¹⁶⁴ have engaged and were successful in strategic litigation against some of the biggest fossil fuel companies. In Kenya, the USD 2 billion Lamu Coal Power Station was suspended after sustained opposition from CSOs which resulted in the cancellation of the project's environmental license, and the withdrawal of financing from the Industrial and Commercial Bank of China.¹⁶⁵ Staff and partners in the surveyed countries highlighted the urgent need for governments' to provide a strong, inclusive enabling national policy environment and financial incentive structure, and for institutional funders to provide flexible, rather than project-based, core funding to enable innovation and scaling of solutions.

FINDING 8: SYSTEMIC TRANSITIONS ARE POSSIBLE AND CAN BE ACCELERATED AND SHAPED BY PROGRESSIVE ORGANIZATIONS AND INDIVIDUALS

The fundamental challenge facing humankind is how to ensure that the clean energy transition under way is fast, just and transformative. The research literature shows that disruptive social-technical transitions, such as the industrial and digital revolutions, are possible. Systemic transitions can be generated via interactions, tensions and co-evolution between different system levels: the incumbent regime, niche innovations, and the energy landscape¹⁶⁶ (Box 7).

Box 7: Different system levels

In the transition literature, socio-technical transitions occur via interactions between three system levels:

- *Incumbent regimes* are the dominant systems of policies, norms and practices, supply chains, physical infrastructures, and markets (and hence actors), in this case relating to fossil fuel production and consumption.¹⁶⁷ For example, in the electric power industry, the regime is comprised of the firms that generate, transmit and distribute power, the policies that govern the processes for doing so, and the cultural norms and behaviours of energy consumers.
- *Niche innovations* are socio-technical innovations, in this case, clean energy solutions, that have gained footholds in certain locations and/or markets, which challenge existing energy regimes, or at least some components of the regime.¹⁶⁸ Examples of niche energy innovations include locally-owned generation of clean and renewable energy, improved energy access, and energy efficiency improvements such as new energy-saving light bulbs or better ventilated or insulated homes.
- *Landscapes* are the broader long-term trends influencing or shaping energy systems, including exogenously driven disruptions, such as major crises, and slow-moving changes like demographics, ideology and geopolitics which are very difficult to change.¹⁶⁹ A prime example of a current landscape pressure is the climate crisis.

The research literature highlights various possible transition pathways. One prominent pathway relevant to the current climate crisis is when landscape pressures such as climate impacts exert pressure on and disrupt the policies, practices and norms of the dominant incumbent regime, which in turn can open the door for niche innovations developing on the margins of society to spread to the mainstream.¹⁷⁰

But there are many unknowns about how possible new energy paradigms will develop, what shape they will take or how quickly they will be achieved. For example, will incumbent fossil fuel regimes be replaced by equally centralized mega-renewables systems (largescale wind or solar), or will decentralized, locally-owned micro-generation be more common? And because of the far-reaching changes in socio-economic infrastructures required to effect change and the disparate stakeholders whose interests may be at odds, the transition process may not necessarily be just. Market forces and technical innovations play essential roles in driving transitions. But on their own, without active and intentional governance, they may well not achieve either the speed required to prevent dangerous climate change or result in just outcomes.¹⁷¹

As transitions are multi-actor processes, humanity can purposively influence and shape them. Past socio-technical transitions have involved interactions between firms, industry associations, households, policy makers, social movements, technology manufacturers, scientific communities

and special interest groups.¹⁷² The transition management literature suggests that the speed and nature of the transition will depend on the shared vision, goals and mutually reinforcing – or conflicting – change strategies of private, public and civil society actors, and highlights an important role for governments in nurturing ‘niche’ innovations.¹⁷³ Oxfam has also documented evidence about the types of change strategies that can be used to achieve inclusive and radical change at scale even in the toughest and most fragile contexts.¹⁷⁴

Our research shows that Oxfam and partners are using the following type and mix of change strategies to achieve a just transition.

Building a strong constituency to persuade and pressure governments to support just energy transitions and counter incumbents’ resistance. Oxfam and civil society organizations (CSOs) are building alliances nationally with establishment allies in government and the private sector, social movements, academia, and various media platforms; putting pressure on international organizations to provide financial support to just energy transitions; and/or raising awareness and mobilizing the public to call for a just transition. Mobilizing a strong constituency may involve documenting case studies and stories of changes in peoples’ lives where energy transition has successfully happened, and when needed, outsider public mobilization, protests, petitions and social media campaigns.

Horizontal and vertical development and scaling of just energy solutions. Some Oxfam country teams and civil and allies are working to identify, nurture and develop proofs of concept for just energy solutions that successfully improve energy access and lower emissions, especially in off-grid areas, and then scale-up successful initiatives. Scaling of successful just energy solutions will require organised horizontal diffusion to other communities and institutions via networking, shared/social learning workshops, case studies and mentoring;¹⁷⁵ and/or influencing governments and other large institutions to vertically scale solutions either directly or by creating an enabling policy and financial environment.

National governments have a vital role in scaling energy solutions by nurturing and incentivizing these and creating a level playing field. This may involve using fossil fuel subsidies to incentivize renewable energy production, including allowing households and enterprises to use their rooftops to generate and sell excess energy production to the grid. Local governments, communities, the private sector and CSOs can also play an important in developing, modelling and diffusing innovations.¹⁷⁶ But while there are increasing examples of private sector-led clean and renewable energy solutions, many are not just.

Influencing for just policies, practices, and inclusive governance that respect rights. A strong, enabling, and equitable government policy and financial incentive framework, adequate institutional arrangements, and an inclusive and accountable governance system are all vital for a fast transition that benefits all sectors of society. In many countries, however, while policies are favourable to the private sector, efforts by local communities to demand transparency, accountability and shared benefits are met with contempt and, worse, suppression. Such policy environments allow the persistence of corporate business models that treat people as a barrier to, or collateral damage in, the quest for a net-zero carbon future.

Oxfam and CSOs are seeking to achieve changes to policy and practices via the active influencing of government, investors and corporate actors to eradicate policies and practices that constrain the fast and just energy transition, such as fossil fuel subsidies, and introduce supportive ones that support the rapid and just scaling of energy solutions. This typically requires a strategic mix and sequencing of insider and outsider strategies, constituency building, and taking advantage of windows of opportunity to present solutions to power holders. A good starting point would be to ensure that FPIC processes involve genuine consultations with indigenous peoples, women, and other marginalized groups.

Where mega-renewables are involved in the energy transition, influencing strategies may include influencing to bolster public policy regulations and corporate and investor practices relating to

community consultation, FPIC, community ownership, and shared community benefit. There is a global movement of governments, businesses, investors and CSOs supporting or calling for such standards, including for energy projects,¹⁷⁷ which Oxfam has been seeking to apply to the mining sector.¹⁷⁸ Where in-country strategies involve decommissioning fossil fuel industries, programme activities may include working with and influencing the government to ensure social protection and safety nets to ameliorate the effects of job losses. Where governments are impermeable to policy engagement due to corruption or political capture, strategies may include strategic legal actions (i.e., litigation) to exact compliance and establish legal precedence, a strategy Oxfam Colombia tends to pursue.

Advocating for international climate financing for the energy transition. Most developing countries' emission reduction targets are contingent on international financial support, ideally grants-based or low-interest loans. But current levels of climate finance from wealthy countries are not nearly enough to spur a fast and just energy transition. Where international financial support is not forthcoming, governments may liberalize the energy sector to attract local and foreign corporate actors, but their business models often prioritise profits over people and compromise the rights and welfare of local communities. Financial assistance from wealthy countries to support the energy transition in low-income countries should complement and be additional to finance for adaptation and for loss and damage. In higher middle-income countries, civil society can also call for progressive domestic sources of finance, as discussed above.

CONCLUSIONS AND THE WAY FORWARD

This research shows that the clean energy transition is gathering pace in the 12 surveyed countries at differing paces. However, its scale and speed are constrained by a lack of investment and of promised concessionary finance from wealthy high-emitting governments, and other political, economic and technical challenges and constraints.

There are signs that the transition is starting to generate economic and social co-benefits in some of the surveyed countries. The research also uncovered examples of efforts to share the ownership, governance and co-benefits of clean energy with marginalized communities, but such examples are still too few and far between. In too many other cases benefits are largely being captured by private interests and the costs pushed onto low-income and marginalized communities, for example in the form of egregious land grabs and rights abuses.

Whether the new emerging system also helps create a fairer world will depend on whether we all – governments, companies, and civil society practitioners – put justice and rights, at the heart of the transition. The report outlines four important justice principles and a checklist of questions (Annex 1) that provides essential guidance for governments, donors, the private sector and practitioners to ensure a fast – but also just and transformative – transition that simultaneously mitigates and tackles the underlying structural drivers of the intensifying climate crisis, reduces rather than entrenches or exacerbates inequalities, and helps speed the transition.

These key just transition principles and related rights include:

Recognition-based justice which requires that the rights, concerns of, and injustices experienced by, affected marginalized economic and social groups are recognized and addressed.

Procedural justice which requires that affected people have a meaningful say in the design and implementation of transition policies and projects, including the right to FPIC, to freedom of association, to organize and to protest, among others.

Distributional justice which requires a fair distribution of the responsibilities, costs and benefits of climate/energy action across different economic and social groups and protects the right to life, right to land, decent work, a healthy and clean environment and health and safety, among others.

Remedial justice which requires that people are fairly compensated for any harm resulting from energy projects or for loss and damage from climate change.

ANNEXES

ANNEX 1: JUST ENERGY TRANSITION CHECKLIST

The following justice-related criteria provide important guidance for **governments, donors, investors, companies, CSOs and practitioners** to help ensure a fast, just and transformative transition that simultaneously helps achieve a social and economically just transition.

CHECKLIST FOR INTERNATIONAL JUSTICE BETWEEN COUNTRIES

FAST TRANSITION CRITERIA

- Have high-emitting wealthy governments and corporations set national carbon reduction targets in line with science to mitigate and avoid dangerous climate impacts?
- Have high-emitting wealthy governments developed an effective and efficient national plan to achieve a fast transition via a relevant mix of legislation, standards, public investment, taxes and financial incentives (see national-level strategy)?

JUST TRANSITION CRITERIA

- Do governments, investors, companies publicly commit to and abide by internationally recognized human rights standards (**recognition justice**)?
- Are countries required to integrate just transition criteria into NDCs?
- Do relevant multilateral rules, standards and guidelines for financiers, investors and companies integrate and enforce just transition principles and human rights?
- Are existing and historic inequalities between countries, and the constraints they exercise on climate action in lower-income countries, understood and recognized (**recognition justice**)?
- Do affected communities, including from low- and middle-income countries, have a seat and voice at multilateral decision-making tables (**procedural justice**)?
- Have wealthy countries set emissions targets in line with their fair share of international responsibilities for carbon reduction and the principle of common but differentiated responsibilities and capabilities (**distributive justice**)?
- Are wealthy countries delivering the promised grant-based climate finance (additional to aid budgets) and technology transfer to support just mitigation, energy transition, and adaptation in low-income countries in line with the polluter pays principle (**distributive justice**)?
- Are wealthy countries delivering finance for loss and damage in low-emitting countries (**remedial justice**)?

CHECKLIST FOR NATIONAL JUSTICE WITHIN COUNTRIES

FAST TRANSITION CRITERIA

- Have the governments of high-emitting, particularly wealthy, countries developed an effective and efficient national plan to achieve a fast transition via a relevant mix of legislation, standards, public investment, taxes, financial incentives and practical support, including:
 - Mandating that high-emitting sectors, organizations and individuals reduce the quickest and fastest?

- A rapid switch away from fossil fuels (including an immediate end to new fossil fuel licences for wealthy countries)?
- A rapid phase-out of fossil fuel subsidies?
- An enabling policy framework and financial incentive structure for clean energy, backed by a financing strategy from domestic and international sources?
- Market transformation regulation and standards to improve energy and resource efficiency of, for example, lighting, heating, appliances, transportation and agricultural production?
- Reduced consumption of non-essential high-emitting, polluting, or non-sustainable goods and services, particularly excessive luxury consumption by wealthy elites?
- Accompanying awareness-raising, cultural and behavioural-change policies and programmes to support reductions in consumption and avoid rebound effects from improved energy efficiency?

JUST TRANSITION CRITERIA

- Have governments, investors and companies undertaken an intersectional analysis of social and economic inequalities before setting energy targets and designing energy pathways (**recognition justice**)?
- Do affected, marginalized and vulnerable communities have a meaningful say in government and corporate decision making and project design and implementation, including the right to FPIC (**procedural justice**)?
- Has the government set national carbon reduction targets in line with its fair share of international responsibilities for carbon reduction (**distributional justice**)?
- Has the government articulated a detailed national strategy and put in place a relevant mix of legislation, standards, public investment, taxes and financial incentives to achieve a just distribution of responsibilities, costs and benefits of the transition (**distributive justice**):
 - A fair distribution of carbon reduction **responsibilities** – are the biggest emitters required to make the biggest and fastest reductions in emissions?
 - A fair distribution of transition **costs**:
 - Are wealthy governments delivering on their promised grant-based climate finance (additional to aid budgets), to support mitigation, adaptation, and loss and damage in low-emitting, low-income countries and communities?
 - Are the biggest and wealthiest emitters within countries shouldering the biggest share of costs of the transition, for example, via progressively funding domestic finance such as taxes on the windfall profits of fossil fuel companies, carbon-intensive companies, and wealthy high-emitting individuals?
 - Have governments introduced, integrated and enforced just transition principles in policies, guidance and standards to ensure and enforce due diligence by financiers, investors and companies in relation to just transition criteria and rights?
 - Is retraining and social security protection provided for workers losing their jobs in the fossil fuel sector?
- A fair distribution of the economic, social, and health **co-benefits**:
 - Have co-benefits been identified, valued and compared with costs?
 - Are transition policies and projects designed to share the co-benefits with low-income and marginalized social groups, even though they are low emitters, for example, by addressing structural barriers to participation and providing needed financial and practical support?
 - Has the government put in place an enabling policy environment and financial incentive and practical support for community-owned energy projects?
 - Are there government protocols for community/private sector partnerships and benefit sharing?

- Has compensation been paid to affected communities for unavoidable social or environmental harms (**remedial justice**)?

TRANSFORMATIONAL CHANGE CRITERIA

Have governments instituted policies and practices that help address the structural drivers of the intersecting climate and inequality crises, for example instigating: inclusive and participatory decision-making processes; revaluation of GDP; gender-responsive, anti-racist and anti-discriminatory legislative and policy frameworks; reform of company law and reporting requirements to prioritise social and environmental – not just financial returns; due diligence laws to obligate companies to uphold and protect human rights and environmental standards; an economic rebalancing away from the privatization and commodification of public goods to common or community ownership; anti-trust and competition laws and action; living wages/income; investment in affordable, green infrastructure and care services; a shift from extractive to a regenerative and circular economy; and fiscal redistribution?¹⁷⁹

ANNEX 2: RESEARCH PURPOSE, QUESTIONS AND METHODOLOGY

RESEARCH PURPOSE

This research paper seeks to:

- inform Oxfam, donors, policy makers and practitioners about the specific implications of the energy transition for lower-emitting, lower-income countries.
- influence funding streams for the just energy transition.
- Inform policy and practical solutions and influence funding streams for the just energy transition.
- provide a foundational understanding from which further depth research or briefing papers may be developed.

RESEARCH RATIONALE

The world is at critical turning point. With global emissions continuing to rise despite the latest COP26, pressure is building on all countries – not just the highest-income countries – to ramp up their current carbon reduction pledges. Phasing out of fossil fuels and generation of renewable energy, to which huge new sums of money are increasingly channelled, is one critical pathway to reducing emissions. Although low-emitting lower-income countries have less responsibility to reduce carbon emissions than higher-emitting wealthy countries, the clean energy transitions will have major implications for them, offering opportunities but also threats. Within Oxfam, global climate advocacy has focused on holding wealthy countries to account for emissions reduction and climate finance, while country work focuses on adaptation and resilience. Increasingly, country teams are also working on just climate mitigation in relation to energy and agriculture.¹⁸⁰

RESEARCH QUESTIONS

Overarching questions:

- What is climate justice and a just energy transition and why are they important?
- What are the implications of the energy transition for lower- and middle-income countries?
- How might a fast, just and transformative energy transition be achieved?

Country-specific questions:

- What is the country's development and inequality ranking, and degree of civic space; and emissions targets, energy access, energy mix and transition minerals?
- What are the international and domestic developmental, political, economic, and social drivers and constraints (including challenges and trade-offs) of a fast and just transition?
- What are the prospects for a fast and just transition (in relation to procedural, distributive, and remedial justice)?
- What are the priorities, capacities and partnerships of Oxfam country teams and partners in relation to the just transition? [relevant to the internal scoping paper only].

RESEARCH METHODOLOGY

- A general literature review structured around the research questions.
- Interviews with 36 country staff and partners in six countries.
- Literature reviews in each of the 12 countries, structured around the research countries.
- In-depth interviews and online surveys with 36 staff and partners from six Oxfam country programmes – Colombia, the Occupied Palestine Territory (OPT), the Philippines, Kenya and Zimbabwe – using a semi-structured interview guide.
- Desk review of six countries (Bangladesh, Cambodia, Indonesia, Nigeria, South Africa, Mexico and Lebanon).
- Synthesis and cross analysis of seven case studies and country profiles by two researchers
- Presentations of research findings to, and feedback from, staff from 12 country teams
- Presentations of research findings to, and feedback from, 60 staff during the Oxfam Climate Initiative session and around 30 staff at an Oxfam Just Energy Transition community of practice meeting.
- Further peer review, comment and input by 22 co-authors.
- Peer review by 10 internal and three external thematic experts and researchers.

COUNTRY CASE STUDIES AND PROFILES

The research involved six case studies, including the Philippines, Zimbabwe, Kenya, Colombia and OPT, and 67 country profiles of Bangladesh, Cambodia, Indonesia, Nigeria, South Africa, Mexico and Lebanon. The countries were selected based on expressions of interest and their prospects for a fast or just/unjust transition and geographical spread.

RESEARCH LIMITATIONS

Due to capacity limitations, we were not able to interview other stakeholders in each country. However, this was compensated for to some extent by the literature review, which covered government, private, academic and civil society literature and grey material.

ANNEX 3: GLOSSARY

Climate justice for Oxfam means tackling the climate crisis in ways that simultaneously prevent dangerous climate impacts, reduce existing inequalities, and contribute to a fairer, greener and safer world.

Energy systems comprise the cultural, social and governance – as well as technical – elements of energy production, conversion, distribution and consumption. The conventional sources of energy and the way that energy is consumed are responsible for a significant portion of GHG emissions, which cause global warming.

A **clean energy transition** involves a systemic shift away from the production, distribution and consumption of high-carbon to low-carbon energy to mitigate the climate crisis. It can be accomplished by generating clean, renewable energy sources, improving energy efficiency, and reducing energy consumption.

A **just clean energy transition** ensures that clean energy transition is undertaken in a way that simultaneously mitigates the climate crisis and reduces existing power imbalances and inequalities. For this paper, the presence or absence of **procedural, distributional, recognition-based**, and **remedial justice** determines the fairness of energy transition.

Co-benefits are any additional economic, social or environmental benefits arising from carbon reduction and the energy transition, other than the benefits from climate mitigation itself. Co-benefits may include improved energy access, reduced pollution, savings on fuel bills, new green jobs, strengthened energy security (via increased energy diversity), community-owned energy and income, and reduced energy poverty. Some co-benefits may be similar to those from fossil fuels or other energy sources.

NOTES

- ¹ FPIC is internationally recognized as a right held by Indigenous peoples. Oxfam also recognizes it as a best practice for all communities.
- ² IPCC. (2022). *Climate Change 2022: Impacts, Adaptation, and Vulnerability. Working Group II Contribution to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change*. Retrieved 24 October 2022, from https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf
- ³ According to one study in 2019, eight out of the 10 countries most affected by extreme weather events belonged to the low- and lower middle-income category and half were Least Developed Countries. Eckstein D, Künzel V, Schäfer L (2021) *Global Climate Risk Index 2021, Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2019 and 2000-2019*. Briefing paper. GermanWatch.
- ⁴ African Development Bank Group (2022). *Africa loses up to 15% of its GDP per capita annually because of climate*.
- ⁵ IPCC. (2022). *Climate Change 2022*.
- ⁶ In model pathways with no or limited overshoot of 1.5°C, global net anthropogenic CO₂ emissions decline by about 45% from 2010 levels by 2030. Net zero means achieving an overall balance between emissions produced and emissions taken out of the atmosphere. Following net zero by 2050, the world must go to net-negative emissions to return global warming to 1.5°C. Reaching net zero is not enough to limit warming to 1.5°C but we will have to go net-negative emissions to 'actively draw down the cumulative amount of CO₂ emissions to return below a 1.5°C warming level.' See: J. Rogelj, D. Shindell, K. Jiang, S. Ffifita, P. Forster, V. Ginzburg, C. Handa, H. Kheshgi, S. Kobayashi, E. Kriegler, L. Mundaca, R. Séférian, and M.V. Vilariño. (2018). *Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development*. Retrieved 24 October 2022, from https://www.ipcc.ch/site/assets/uploads/sites/2/2019/02/SR15_Chapter2_Low_Res.pdf
- ⁷ United Nations Environmental Programme (UNEP). (2021). *Emissions Gap Report 2021*. Retrieved 24 October 2022, from <https://www.unep.org/resources/emissions-gap-report-2021>; Earth System Science Data. (2022). *Global Carbon Budget 2021*. Retrieved 25 October 2022, from <https://essd.copernicus.org/preprints/essd-2021-386>
- ⁸ United Nations Framework Convention on Climate Change (UNFCCC). (2021, 17 September). *Full NDC Synthesis Report: Some Progress, but Still a Big Concern*. Retrieved 24 October 2022, from <https://unfccc.int/news/full-ndc-synthesis-report-some-progress-but-still-a-big-concern>
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- ¹⁰ See: J. Hickel. (2020). *Quantifying National Responsibility for Climate Breakdown: An Equality-based Attribution Approach for Carbon Dioxide Emissions in Excess of the Planetary Boundary*. *The Lancet Planetary Health*, 4(9), E399–E404; S Harlan, D. Pellow, R. Timmons, S.E. Bell, W. Holt, and J. Nagel. (2015). *Climate Justice and Inequality*. In R. Dunlap and R. Brulle (eds). *Climate Change and Society: Sociological Perspectives*. Oxford: Oxford University Press.
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