

Getting Down to Business: putting human rights at the heart of a just and equitable energy transition

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Christian Aid exists to create a world where everyone can live a full life, free from poverty. We are a global movement of people, churches and local organisations who passionately champion dignity, equality and justice worldwide. We are the change makers, the peacemakers, the mighty of heart.

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Cover: Marlen Lourdes Salguero and Lorena Perdomo install household solar energy technologies. They received training from The Christian Agency for Integral Development of Honduras (OCDIH).

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List of acronyms

ACCESS Alliance of Civil Society Organisations for Clean

Energy Access

AREI Africa Renewable Energy Initiative

ASI Aluminium Stewardship Initiative

CBDR-RC Common but Differentiated Responsibilities and

Respective Capabilities

CLA Community Land Act

COP Conference of Parties

DRE Decentralised/distributed renewable energy

EU European Union

FPIC Free, Prior and Informed Consent

FoLT Friends of Lake Turkana Trust

ILO International Labour Organization

KPLC Kenya Power and Lighting Company

LS-PTL Loiyangalani to Suswa Power Transmission Line

LTWP Lake Turkana Wind Power Limited

LTWPP Lake Turkana Wind Power Project

MRN Mineração Río do Norte

OECD Organisation for Economic Co-operation and

Development

PPA Power purchasing agreement

PPP Public-private partnership

SDGs Sustainable Development Goals

SE4All Sustainable Energy for All

UNFCCC United Nations Framework Convention on Climate

Change

UNGPs United Nations Guiding Principles

WLSEE Women Led Sustainable Energy Enterprise

WoC Winds of Change Foundation

Executive summary

The private sector plays a critical role in the transition to low-carbon economies and especially the renewable energy transition. This brings both risks and opportunities for the realisation of human rights. While a *just and globally equitable transition* is possible, this requires significant action by states as primary duty-bearers for human rights, as well as businesses, workers, consumers and citizens at large.

The dominant international climate and development policy discourse underappreciates the risks. Policymakers are not paying enough attention to the obligation of states to *protect* against corporate human rights abuses in the context of the energy transition. As businesses rapidly enter the renewable energy sector in what is being described as 'the green gold rush', it is essential that we do not replicate the mistakes of the fossil fuel industry in further exacerbating inequalities. Ten years after the establishment of the UN Guiding Principles on Business and Human Rights, the experiences of communities we work with tell us that voluntary approaches to encourage businesses to respect human rights have been woefully inadequate and that it is high time for legally binding regulations that mandate businesses to respect human rights.

This is exemplified in this report by two case studies. The first focuses on transition minerals. Through new research that tracks the global aluminium supply chain, we expose how European electric car manufacturing is likely tied to serious human rights and environmental concerns in the Brazilian Amazon and establish that several businesses involved in this sector have failed to fully comply with their obligations to respect human rights. The second considers major renewable energy projects and sets out the positive and negative experiences of communities affected by the Lake Turkana Wind Power Project in Kenya as emblematic of the sector.

Equally, the transition to renewable energy offers important opportunities to shift deeply entrenched power dynamics and make progress to *fulfil* human rights. This report analyses and draws policy implications from Christian Aid's work in support of womenled renewable energy enterprises, demonstrating that small and medium-sized businesses building decentralised and localised energy systems can not only provide decent work and food security, address energy poverty and reduce carbon emissions, but also help transform gender relations, support downward accountability and enhance democratic decision making. Public and private sector decision makers should look to these and other experiences to put human rights at the heart of the just transition.

Box 1: Principles for an accountable private sector that puts human rights at the heart of a just and equitable transition

- Champion the participation of rights holders in policymaking on the renewable energy transition.
- 2. Make it mandatory for businesses to respect human rights.
- Build institutional capacity to ensure businesses comply with laws and regulations.
- 4. Support locally led decentralised and sustainable renewable energy solutions.
- Pay particular attention to the rights of marginalised groups and gender equality.
- Protect human rights and environmental defenders.
- Enhance transparency in all types of business entities and at all levels of government.
- 8. Effectively tax corporations to mobilise critical climate and development financing.
- Establish policy coherence within rights-based economies.
- Democratise economic decision making at every level.

Introduction: Just transition forecast – 'unfavourable but possible'

It is undeniable that businesses shape our lives and the fulfilment of our human rights.

Christian Aid's work with people in poverty and marginalised communities demonstrates that businesses can be an important force for good by providing goods, delivering services, offering decent work and supporting the generation of incomes. Micro, small and medium-sized enterprises are the main sources of paid jobs in both the formal and informal sectors in many countries in the global South, and interest is growing among business owners in having positive social and environmental impacts and operating in ways that are redistributive and regenerative.²

At the same time, Christian Aid's experiences tell us that the private sector is also responsible for significant human rights abuses and harm to the environment.³ This happens in large, medium and small businesses and across value chains, through practices such as the exploitation of workers, occupational violence, gender discrimination,⁴ landgrabs, the destruction of forests and critical ecosystems,⁵ and the emission of greenhouse gases and other types of pollution. This is particularly the case where there are weak regulations and large power imbalances between local communities and big businesses, especially those that operate across borders.⁶

Over the last forty years, these power imbalances have significantly deepened. Extensive deregulation, privatisation and liberalisation, as well as a global race to the bottom on corporate taxation, have enabled transnational corporations to significantly expand the size and scope of their operations and become increasingly concentrated- and these trends are accelerating.8 Between 2020 and 2021, as millions of people were pushed into poverty during the Covid-19 pandemic, the value of the world's top 100 companies increased by 48%, as shareholders and billionaires were paid out unprecedented amounts in corporate profits.9 And yet, Christian Aid and its partners found that many governments still used a majority of their pandemic response and recovery spending to benefit major corporations, rather than for small businesses or to strengthen social protection measures to protect the most vulnerable. 10 We also documented how large pharmaceutical corporations profited from Covid-19 vaccine inequity,11 while

many commercial banks and hedge funds are effectively holding recoveries hostage by refusing to participate in negotiations with countries requiring urgent debt relief.¹²

This rise and concentration of corporate power, particularly of the private financial sector, is mirrored in and further driven by trends in development finance, where the dominant discourse is on private finance being the panacea to meeting the Sustainable Development Goals. Among the most concerning aspects of this is a trend towards development models that encourage deregulation and in which public finances are used to take on financial risk of investments, facilitating private profitmaking, using instruments such as blended finance, public-private partnerships and risk guarantees. So far, this approach has not only proven unsuccessful in mobilising significant investments, 13 but has raised serious concerns about which actors are involved and in whose interests they act, how impacts are measured, how risks are distributed and who ultimately benefits.¹⁴ In April 2023, UN Secretary General António Guterres warned governments that these failures of our global financial architecture are now threatening to turn the 2030 Agenda into 'a mirage of what might have been'. 15

Against the backdrop of this changing relationship, or social contract, between the state, the private sector and people as holders of fundamental human rights, our relationship with the planet is rapidly changing as well. Climate change is already significantly affecting the realisation of human rights through what has been termed 'loss and damage', which disproportionately affects those in poverty, particularly women in marginalised communities, exacerbating economic, gender and social inequalities. Yet, the difference in expected human rights impacts between limiting warming to 1.5°C and 2°C, or even higher, are immense. Mitigation is an urgent imperative for the realisation of human rights, without which marginalised communities will be left even further behind.

Critical to that mitigation is ensuring that energy technologies, including solar and wind power and electric batteries, are made available sustainably and cost-effectively at scale. Great strides have been made over the last ten years to that end through a mix of public policy instruments that greatly reduced costs and stimulated adoption and innovation, 17 but much more remains to be done to achieve this aim.

Yet, it is not just the *consumption* of fossil fuels that has and continues to seriously harm the environment and human

rights. Their *production* has been overwhelmingly based on an extractive and colonial model of development, characterised by deep power asymmetries, whereby many marginalised communities suffer serious human rights abuses around the extraction of fossil fuels that are primarily burned in the global North, while fossil fuel companies make record-breaking profits. 18 As businesses rapidly enter into the renewable energy sector in what has been described as 'the green gold rush', 19 it is essential we do not replicate these same mistakes in designing and delivering the green transition, allowing practices in the private sector that contribute to human rights and environmental degradation and that exacerbate inequalities within and between countries.²⁰ It is not just the speed at which decarbonisation happens that is critical to protecting human rights, but how this transition takes place, which requires the special attention of governments, the private sector and the international community.

For these reasons, Christian Aid and its partners across the world are working towards a just and equitable energy transition, one in which businesses respect human rights and one that is intentionally designed to contribute to the achievement of human rights by ensuring the substantial benefits of decarbonisation are shared and communities who stand to lose out are supported. Our vision for a just and equitable transition sees a pathway for decarbonisation to contribute to the eradication of poverty, providing decent work for all, and social inclusion, and ultimately to transform our economies from being dependent on extraction to sustainable, rights-based economies that serve and are shaped by marginalised communities. This process must be a globally equitable one, rooted in reparative justice, in which wealthy countries that historically have benefited from unsustainable energy systems support a just transition in poorer countries.²¹ As the climate crisis intensifies, the practical and moral need for a just and equitable transition is being increasingly clearly articulated, by churches calling for 'faithful stewardship',22 UN experts,23 and the converging global economic and climate justice movements.24

We understand that a just and equitable energy transition, as part of a wider just transition, should contribute to reducing inequalities and fulfilling human rights and forge new power relationships that ensure acting on the climate crisis delivers for all, including future generations. The energy transition offers critical opportunities to do that and to renew social contracts in which existing power dynamics between states, the private sector, people and planet are disrupted and transformed. This

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has already been happening among communities across various contexts and initiatives, particularly in the global South, which policymakers and businesses must look to. While the status quo is not in our favour, a just and equitable energy transition is essential, and possible, but requires significant change that is up to all of us to realise.

This report

This report sets out Christian Aid's research and experiences working with communities in their engagement with the private sector in the context of the green energy transition. With this, we aim to evidence the role of the private energy sector in a just and equitable energy transition, develop key considerations for putting human rights at the heart of this transition, and set out policy considerations and recommendations.

We begin by reviewing existing legal human rights and other normative frameworks in relation to corporate accountability for human rights that apply to the energy sector and related sectors involved in the energy transition.

Then we cover two overarching considerations, illustrated by case studies that exemplify wider trends in this sector:

First, we consider how to better *protect* human rights in the emerging private renewable energy and related sectors, with a focus on transnational corporations, building on our earlier research on human rights and environmental impacts of bauxite mining in the Brazilian Amazon, the drivers of the industry in this region and how international aluminium and mining companies have significantly benefited from tax exemptions for bauxite mining companies operating in the region and their operations more generally.25 Through new research, this report exposes how European car manufacturing, including for electric cars, is likely tied to this bauxite and alumina, the production of which also involves serious human rights and environmental concerns in the Brazilian Amazon, and we establish that several companies in this sector have failed to fully comply with their obligations to respect human rights.

We also explore the human rights and environmental impacts of large-scale renewable energy projects, using the positive and negative experiences of communities affected by the Lake Turkana Wind Power Project in Kenya as emblematic of the sector.

Second, we consider how the green transition could contribute to the fulfilment of human rights, focusing on localised and small businesses. We draw on several examples of Christian

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Aid's work with communities that help transform power relationships and amplify the benefits of the transition in key areas, such as redressing the gendered nature of energy poverty and enhancing climate resilience.

Combining insights from these two considerations, we propose key principles for an accountable private sector that puts human rights at the heart of the just and equitable transition. We include recommendations for essential regulations and other policies to ensure business practices become accountable to marginalised communities, while also providing guidance to policymakers on how to channel their resources towards a transformative energy transition. We hope this report will contribute to wider debates on business accountability for human rights and the roles of governments and businesses in achieving sustainable development and human rights for all.

Methodology

This report uses mixed research methods, including case studies, key informant interviews, consultations with Christian Aid's partner organisations, and literature and policy reviews. Excerpts of this report were also shared with any named companies before publication, some of which provided additional information referenced throughout the report accordingly. Case studies were selected because they are typical of wider trends in the sector, represent various issues across different contexts, and illustrate specific issues raised in the report substantiated through reviews of secondary literature. They are based on the contributions of expert partner organisations and the experiences, both positive and negative, of communities. The methodology used for the case study on the aluminium supply chain in particular draws on data specific to the sector and relating to specific companies.

Moving towards sustainable, rights-based economies requires that a just and equitable transition prioritises the human rights and energy needs of people in poverty and marginalised communities, which means that the voice of civil society and people's movements must be heard. In highlighting priority concerns and proposing alternatives, our report therefore draws lessons from the research and policy positions of Christian Aid's partners and wider networks, the experiences of communities they work among, and our advocacy and that of our partners at national, regional and global levels.

2. An accountable private sector: existing legal and other normative frameworks

2.1 Our starting point: A long way to go

The renewable energy transition needs to happen quickly but must avoid the power inequalities and human rights abuses that have characterised fossil fuel-based energy systems. Private sector accountability is an essential part of this. There have been numerous documented cases of adverse environmental impacts and serious human rights violations in renewable energy industries and related sectors.²⁶ These sectors include: mining companies involved in the extraction of so called transition minerals such as lithium, cobalt, copper, bauxite and nickel; producers of technologies such as solar panels, wind turbines, electric vehicles and batteries; wind, solar, hydropower, bioenergy and geothermal energy businesses; and financial institutions increasingly investing in the growth of these sectors as a whole.

The human rights and environmental due diligence practices of these companies and the international safeguarding standards in these sectors have not kept pace with their rapid expansion. Common allegations of human rights abuses in these sectors include: land grabs and displacement of local communities to install wind farms or solar parks; dangerous working conditions and poverty wages; threats to those who speak out; harm to indigenous peoples' lives, livelihoods and cultures; and pollution and environmental harm caused by the mining of transition minerals.27

Since 2010, the Business & Human Rights Resource Centre has recorded more than 200 allegations of human rights abuses linked to renewable energy projects.28 In its dedicated human rights benchmark of the largest renewable energy companies, published in 2020, the Centre indicates that: '[M]ost of [these companies] lack the essential human rights policies to avoid abuse of the communities and workers on which a just transition depends. The results of the benchmark suggest that none of the companies analysed are currently fully meeting their responsibility to respect human rights, as defined by the UN Guiding Principles'29 (see Section 2.2).

In 2020, this benchmark research found that nearly half the companies examined scored below 10% in meeting their human rights obligations, and three quarters scored below 40%.30 The average score of assessed companies was just 22%,

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Business and Human Rights Resources Centre, 2020

indicating that, as a whole, the industry has 'a long way to go' to demonstrate its respect for the human rights of communities and workers in their operations and supply chains.³¹ In the 2021 edition of the benchmark, the average score was just 28%,32 indicating that the concerning diagnostic from the 2020 edition of the benchmark remains.

In a separate tracker, the Business & Human Rights Resource Centre has recorded 510 allegations of human rights abuses related to extraction of transition minerals between 2010 and 2022, such as those related to the right to health, access to water and land rights.33 This indicates that unless the industry is actively and adequately regulated, it may replicate many of the same human rights abuses and environmental harms as the fossil fuel industry.34

Similarly, while states and international financial institutions are providing substantive incentives and financing to companies involved in delivering the energy transition, many of them have not satisfactorily integrated human rights considerations in their policies and normative frameworks that apply to the sectors involved in this transition, nor have they adequately aligned their investment portfolios with the Paris Agreement.35

2.2 Human rights frameworks

In recent decades, a global framework of standards and guidelines aimed at addressing the corporate impact on human rights and the environment has slowly begun to emerge, but it remains underdeveloped and ineffective. The patchwork of national and international laws, standards and initiatives has not kept pace with the rapid globalisation of the world economy and remains light touch. This section explores some of the most relevant legal and normative frameworks and their limitations for a human rights-coherent energy transition.

At the most fundamental level, under international human rights law, states are obligated, firstly, to respect human rights, through measures to prevent any action that interferes with people's ability to claim or realise their rights; secondly, to protect rights through legislation to prevent abuses and to provide means of redress for violations; and thirdly, to fulfil rights by mobilising the maximum available resources for their progressive realisation.36 This means that, in relation to the private sector, states are obligated to protect human rights by enacting and implementing legislation and regulations that prevent abuses and ensure adequate means of redress and accountability when things go wrong.

Beyond effective regulation of corporate actors, Christian Aid and our partners believe that the obligation to *fulfil* human

rights requires states to pursue more fundamental changes and to establish economies that are rights-based – guided by values of dignity, equity, solidarity, accountability and justice, rather than a narrow focus on economic growth. This includes, for instance, effectively taxing corporate actors and ensuring sovereign debt payments to private creditors don't undermine the state's ability to provide critical public services. It requires creating an enabling macroeconomic environment for the fulfilment of human rights and directing all industrial and economic policy towards that ultimate purpose. This carries significant implications for the role and limitations of the private sector and requires states to take effective steps to ensure private sector activities actively contribute to fulfilling human rights.³⁷

While it is governments that are the primary duty bearers in international human rights law and thereforecarry direct human rights obligations, over the past decade in particular, a strong consensus has emerged internationally- driven in part by civil society movements, trade unions, human rights defenders and activists, and eventually articulated in institutional settings like the United Nations (UN) and Organisation for Economic Co-operation and Development (OECD) – that businesses have a responsibility to respect human rights. In practice, this means actively working to identify, prevent, address and remedy adverse human rights impacts in their operations and along their global supply chains.38 Businesses should thus seek to prevent human rights impacts that they have 'caused or contributed to' through their own activities, as well as seek to prevent or mitigate impacts directly linked to their operations, products or services through their business relationships.39

At the international level: In 2011, the UN Guiding Principles on Business and Human Rights (UNGPs) were finalised and endorsed by the UN Human Rights Council. They address the need for prevention, mitigation and remediation of human rights violations by businesses. 40 In addition to reaffirming the obligation of states to protect against human rights abuses by all actors in society, including businesses, and the obligation to provide an effective remedy, they establish a business responsibility to respect human rights. To meet this responsibility, businesses should, according to the UNGPs, undertake ongoing human rights due diligence to identify, prevent, mitigate and account for the human rights impacts in their own operations and throughout their business relationships; and have processes in place to enable

remediation for any adverse human rights impacts they cause or contribute to.

In the same resolution that established the UNGPs, the UN Human Rights Council also formed the UN Working Group on Business & Human Rights, an independent group of experts tasked with assessing the implementation of the UNGPs, disseminating information, providing recommendations to states and examining specific sectoral or thematic issues.41

The UNGPs represent an important stepping stone towards the realisation of a more robust set of international standards on business and human rights. However, they alone have not been able to deliver the significant change needed to address corporate human rights abuses. Although the UNGPs recommend that the responsibility to respect is upheld through a mix of legislative and voluntary measures, their implementation has largely taken place through voluntary or industry-led standards, which encourage implementation rather than making it mandatory by way of binding legislation. The UNGPs also do not address state obligations to *fulfil* human rights in relation to the private sector, ignoring the importance of macroeconomic policy frameworks and other measures states should take to ensure business operations contribute to the fulfilment of human rights.

Other international frameworks regarding corporate accountability and human rights have also been developed, but often by institutions that only reflect the interests of wealthier UN member states and do not represent the poorest countries or most middle-income countries.

For example, the G20/OECD Principles of Corporate Governance, 42 first issued in 1999 and recently updated, primarily address 'rights' of shareholders and other stakeholders, and to a lesser extent, workers, generally advising policymakers against 'over-regulation,' 'unenforceable laws' and 'unintended consequences that may impede or distort business dynamics'.

The more comprehensive OECD Guidelines for Multinational Enterprises, revised most recently in 2023,43 make important recommendations such as that companies should respect international human rights standards, even where relevant domestic laws are not in place (Article 38), and that they should conduct human rights due diligence, including in supply chains. They also recommend that multinationals should contribute to economic, environmental and social progress with a view to achieving sustainable development, and that they should respect the human rights of those affected by their activities.

However, the OECD Guidelines also overwhelmingly rely on voluntary efforts by companies as opposed to mandatory rules. For example, where harm is suspected in supply chains, companies are expected to use their leverage to bring about change, but it is recognised that this may not always be effective. Where this is the case, mitigation measures are recommended, or, as a last resort, disengagement with suppliers. Clearly, while the latter reduces the risk to parent companies, it won't necessarily stop abuses occurring. Furthermore, these guidelines still reflect the disproportionate power of multinational companies based in the global North. The fact that the OECD Guidelines are unlikely to be adopted by companies not based in OECD countries is another drawback.

Similarly to the OECD Guidelines, other international frameworks around corporate responsibility and human rights, such as the revised International Labour Organization (ILO) Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, also rely on voluntary approaches and do not include structural changes required in prevailing economic systems.

Experience with these types of international soft law initiatives during the last three decades has shown that largely voluntary approaches, guidelines, and codes of conduct have not been sufficient. Asking corporations to effectively police themselves internationally has failed to prevent abuses from happening.44 Christian Aid's work with communities around the world, most recently in relation to the industrial mining sector in Colombia and Brazil, has documented the consistent degradation of human rights and the environment and continued lack of access to remedy, while net profit margins of this global industry have continued to climb. 45 These experiences have led Christian Aid and many others to conclude that, ten years on from the establishment of the UNGPs, we need to now move from 'encouraging' companies to respect human rights to establishing mandatory measures, based on binding human rights law.46

At the national level: Almost all states have put in place at least some laws and regulations to ensure businesses respect human rights within their territories, such as national minimum wage laws and other workers' protections. However the principle of extraterritoriality should also obligate governments to: 1) respect rights, that is, they should not interfere with people's rights or with another government's ability to meet its obligations; 2) protect rights, that is, they should prevent corporations and other non-state actors from interfering with people's rights abroad, by regulating their behaviour or

influencing it in other ways; and 3) fulfil rights, that is, they should cooperate internationally, including through economic and technical assistance, in order to support all governments in meeting their human rights obligations. 47 In fact, the operations of businesses working across borders are covered by a piecemeal patchwork of laws and regulations, leaving a large number of gaps and an over-reliance on the aforementioned voluntary standards. Initially, certain states developed mandatory national laws that sought to regulate transnational corporations' international footprints, but only in a limited subset of particular issues such as modern slavery, conflict minerals or illegal logging. In recent years, certain Western European countries, including France, Germany and Norway, have adopted more comprehensive legally binding rules with respect to the human rights obligations of large companies over their supply chains. Through the Corporate Justice Coalition, Christian Aid is calling on the UK government and political parties to follow suit and introduce a new legal requirement for UK-based companies and investors to carry out human rights and environmental due diligence of their operations and investments.48

Other human rights principles are also particularly relevant to the operations of businesses, including the right of indigenous peoples to give (or deny) free, prior and informed consent (FPIC) to third party activities on ancestral lands.49

In February 2022, the European Commission published a new draft corporate accountability law aimed at introducing legally binding human rights and environmental due diligence rules for businesses based in the EU (see Box 2).50

While the introduction of robust binding regulations alone will not be a panacea, it is an essential prerequisite to fostering a culture of corporate accountability and moving towards rightsbased economies.

Box 2: EU Due Diligence Legislation under discussion

In February 2022, the European Commission published a long-awaited draft corporate accountability law for businesses operating in the EU aimed at preventing and minimising the negative global impacts of business on workers, communities and the environment by introducing legally binding human rights and environmental due diligence rules for businesses based in the EU, including for their supply chains worldwide. It marks a significant milestone in shifting away from the current reliance on predominantly voluntary standards towards firmer legal requirements for mandatory human rights and environmental 'due diligence' checks in businesses' global operations.

Unfortunately, while moving towards a legally binding standard is an important step, Christian Aid and our civil society partners have been dismayed at the unambitious nature of the proposed law. The draft text contains significant weaknesses that risk it being an ineffective tick-box exercise, such as effectively exempting 99% of EU businesses from its scope and extensive loopholes that would allow businesses to evade liability for harm by offloading their due diligence obligations onto third parties. Worryingly, significant practical and financial barriers regarding access to justice also remain unaddressed, making it difficult for victims to make cases against EU companies.

Having been approved by the European Parliament in June 2023, the draft law is now moving into final crunch negotiations between the EU Parliament, Commission and Council, which are expected to conclude in 2023. If successful, all 27 EU Member States would be required to establish equivalent national due diligence laws, in line with or above the standard set by the Directive.

The lack of binding international legal frameworks and appropriate mechanisms to directly hold companies to account for their adverse human rights impacts is a particular concern in the case of energy provision and the transition to renewables. Large energy companies wield significant power within economies as users of land and other resources, as employers, and as producers and providers of an essential social good. As such, they have significant influence over government policies and international processes such as climate negotiations. Some of our partners such as the Project on Organization, Development, Education and Research (PODER) characterise this as corporate state capture. 51 The fact that energy systems and supply chains span national borders and often involve a large share of international investment from wealthier countries also means that energy companies based in the global North benefit from major power imbalances and are often far less accountable for their operations in the global South. This is exacerbated by relatively weaker social and environmental protections in the global South that are, in many instances, a by-product or legacy of deregulatory and liberalisation conditions imposed by northern-controlled international finance institutions as part of loan agreements. As our research demonstrates, lack of transparency in global supply chains, including those involved in the energy transition,

is widespread. This prevents civil society organisations and citizens from having access to information to assess whether the companies involved in a given supply chain are meeting their human rights and environmental obligations. Paired with the practical challenges impacted communities face in holding powerful companies to account across borders, this means that corporate human rights abuses and environmental degradation often go without scrutiny and with impunity.

2.3 Other international frameworks and standards

In addition to efforts to develop international human rights frameworks and standards in relation to business operations, there are also a number of international agreements on climate change and other standards for how we think about the development of sustainable renewable energy that are important to consider.

Most UN organisations and bodies have developed thinking to support their members in implementing the just transition, and the question of what an equitable transition looks like has become central to annual UN climate change negotiations and other policy and development financing forums at global and regional levels. The principles of common but differentiated responsibilities and respective capabilities (CBDR-RC) and equity,52 enshrined within the United Nations Framework Convention on Climate Change (UNFCCC),53 emphasise the obligations of the global North, as those most responsible for climate change, to take the lead in ending fossil fuel dependence and extraction and contribute to the financing needed for the global South to do so as well. In the COP26 Just Transition Declaration of 2021, 17 global North governments and the EU collectively⁵⁴ describe a just transition as ensuring that all 'climate change mitigation and adaptation action...is fully inclusive and benefits the most vulnerable through the more equitable distribution of resources, enhanced economic and political empowerment, improved health and wellbeing, resilience to shocks and disasters and access to skills development and employment opportunities'.

While energy access is not explicitly reflected in international human rights law, the need for the energy transition to ensure energy access for all is set out in Agenda 2030 of the Sustainable Development Goals (SDGs), including SDG 7 targets for energy efficiency and sustainable energy for all, as well as related SDG 12 targets for sustainable consumption and SDG 13 targets for climate action. There are drawbacks to Agenda 2030, including its focus on sustained global economic growth, which is unlikely to be compatible with environmental goals, 55

and its lack of mechanisms for holding governments accountable for delivery. However, the majority of its targets and its 'leave no-one behind' principle do offer rights holders opportunities to highlight inequalities in the achievement of the goals and targets and the differential impacts of any action (or inaction) to achieve them. This includes through monitoring disaggregated data (as provided for under SDG 17.18) and demanding that the rights of the most marginalised people are given priority in their delivery.

In Latin America and the Caribbean, 25 countries have made legally binding commitments on access to information and public participation in environmental decision making and justice in environmental matters, known as the Escazú Agreement.56

There are also a number of 'multistakeholder initiatives' that can play an important role in generating useful dialogue, but fall short of providing corporate accountability. 57 These include Sustainable Energy for All (SE4All), launched by the UN Secretary-General in 2011 with the vision of making sustainable energy for all a reality by 2030 and improving energy efficiency. SE4All is a multistakeholder initiative between governments, the private sector and civil society and has led to myriad initiatives that illustrate the contributions of affordable, reliable and sustainable renewable energy to the fulfilment of human dignity, food security, health, education, gender equality and many other human rights. 58 Another example is the Extractive Industries Transparency Initiative, which sets out a standard for the transparent governance of oil, gas and mineral resources, requiring information on the extractive industry value chain.

Finally, a large number of standards and frameworks involving corporate accountability for human rights have also been established and led by businesses themselves. For instance, the Global Business Initiative on Human Rights,59 which is made up of major multinational corporations, provides its members with standards and technical expertise on the implementation of business responsibilities in the area of human rights. The IPIECA⁶⁰ is the global oil and gas association for advancing environmental and social performance, which sets out environmental and social practice standards, while several industry-led initiatives have been developed to promote responsible mining, including the Responsible Minerals Initiative, 61 the Initiative for Responsible Mining Assurance, 62 and the International Council on Mining and Metals. 63 However, the same fundamental problem underpinning voluntary international standards is also applicable here - voluntary industry-led standards have also failed to curb abuses. While

some responsible businesses have sought to incorporate these principles into their operations, as our research demonstrates, many others have simply ignored them.

Overall, this complex patchwork of standards and guidelines, where a largely voluntary approach to respecting human rights has prevailed, is completely inadequate to meet state obligations to protect fundamental human rights – while not even touching on obligations to fulfil human rights. While relying on voluntary, industry-led initiatives is analogous to letting the fox guard the henhouse, setting out clear, predictable and mandatory standards is in the interest of businesses that want to do the right thing but require a level playing field with their competition to do so. For all those reasons, Christian Aid and its partners have long supported the ongoing movement to establish a new International Binding Treaty on Business and Human Rights as a critical step for bringing about positive change in this area, discussed further in Part III of this report.

2.3 Theological norms and frameworks

In addition to the legal and other normative frameworks outlined above, churches and faith groups have also provided analysis of prevailing economic processes and proposals on how institutions can be reformed in line with deeper understanding of theological principles. 64 Christians pray for daily bread and forgiveness of debts, recognising that economics cannot be separated from faith. 65 Proposals for international economic reforms are premised on recognising that God loves people and the earth and wants everyone to have flourishing lives. God's creation encompasses the Earth and all its resources and humans are entrusted to care for creation as well as for each other. The human-made financial and economic systems need careful nurturing and recognition that they too are God-given. Governments have a duty to uphold human rights, including making sure everyone has sufficient goods and services for a decent life; those with economic power need to consider how their actions impact on those with less. This applies to richer people, to businesses and investors (see Box 3), as well as to governments. The climate crisis necessitates consideration of intergenerational equity as well as fairness between people and countries.

A just and equitable transition to sustainable, renewable energy needs to respect the rights of those who may be affected by the exploitation of natural resources or the indirect impacts of companies up and down supply chains. Christian Aid is concerned that left purely to a market where financial return is the primary concern, there is a risk that investment will

Box 3: A theology of investment

An unpublished paper by Christian Aid partner Theos, A Theology of *Investment*, highlights that investment can be positive or negative for social wellbeing. When directed towards positive and productive causes, it 'contributes to a flourishing society. At best, it can sustain key social goods, create value, facilitate relationships of lending and borrowing, empower sustainable change, and support the development of vital technologies.' But, '[w]here directed towards mere financial accumulation, and without taking account of the potentially negative impacts of some investment decisions, investment may promote considerable social ill'. As investors hold a degree of power to shape business practices and the economy at large, it suggests that a rightsbased economy would be one in which 'businesses recognise and comply with their legal and moral obligations'. Thus, a Christian investment approach might 'observe the difference between a narrow concern only to avoid human rights abuses, and a wider concern to build upon human rights assurances to proactively consider what true flourishing might mean in any given context'.

Source: Unpublished paper by Theos Think Tank

exacerbate existing inequalities while human rights are neglected. Therefore, it is important that investors seeking to support human rights engage with companies and look for opportunities to embrace investing at the point in the financial system where it is most transparent, and at a scale where one has the most agency and influence to create value. Investors should also embrace risk as a form of vulnerability and love. This means being open to the possibility that some investments (chosen for their potential to release and empower others) will not always deliver a financial profit. In this understanding, risktaking is not simply (or even primarily) a means of gaining wealth, but it requires us to open ourselves up to possibilities outside our own control, and to the possibility of loss as well as gain, because we trust God's providence and recognise our responsibilities to others. Thinking about investment this way could spur greater focus on who ultimately benefits from investments and how these transactions reflect a wider set of relationships.

PART I: PROTECTING HUMAN RIGHTS IN THE ENERGY TRANSITION

3. Transition minerals extraction and processing

The production of widely used renewable energy technologies such as wind turbines, solar photovoltaic technologies and batteries is intensive in metals and minerals such as cobalt, copper, lithium, manganese, nickel, zinc, rare earth materials, and bauxite used to produce primary aluminium. 66 As has been well documented, mineral extraction involves many human rights and environmental risks.67 Local communities, civil society organisations and researchers have increasingly documented the negative human rights and environmental impacts of the operations of mining companies, based predominantly in the global South, extracting minerals for the production of renewable energy technologies including cobalt from the Democratic Republic of Congo, 8 lithium from Chile 69 and nickel from Indonesia.70 Companies that process these minerals and metals have also been involved in detrimental human rights and environmental impacts. Despite this, manufacturers of renewable energy technologies use minerals and metals coming from these mining and mineral processing companies, often without fulfilling their responsibility to conduct human rights and environmental due diligence, reaffirming the need for mandatory business and human rights legislation. As our case study of aluminium demonstrates, an 'integrated supply chain' approach – covering the main stages of a supply chain and the main actors involved therein - is needed to understand and address the complex drivers of these problems and the responsibilities of companies in these sectors.

3.1 Case study: The aluminium value chain

This section seeks to document the negative impacts on human rights and the environment along the aluminium supply chain of the private automotive sector in Europe, including electric vehicle producers. Aluminium is widely used in renewable energy generation and storage, including, most intensively, in solar photovoltaic technologies, ⁷¹ as well as in wind power technologies, hydroelectricity, and electric and hybrid vehicles. ⁷² Aluminium is light, relatively strong and highly conductive, which is useful for manufacture of high-voltage cables ⁷³ and other infrastructure needed to support the deployment of renewable energy technologies, and for certain important components such as the

Manufacturers of renewable energy technologies use minerals and metals coming from these mining and mineral processing companies, often without fulfilling their responsibility to conduct human rights and environmental due diligence, reaffirming the need for mandatory business and human rights legislation.

chassis of newly built electric vehicles. The demand for aluminium is therefore expected to significantly increase in the coming decades in the context of the energy transition.74

We focus on processes in two locations in the state of Pará in the Brazilian Amazon – the extraction of bauxite by Mineração Río do Norte (MRN) in Oriximiná, and alumina production by Alunorte in Barcarena. We also look at how these two materials are integrated in the aluminium supply chain of the automotive sector in Europe and used by two vehicle manufacturers specifically, and consider the responsibilities of the key players in these processes. We reflect on what our research tells us about regulatory and other measures required to prevent and mitigate detrimental human rights and environmental impacts along the supply chains of renewable energy sectors. Specifically, we use this case study to demonstrate the gaps in the regulatory and macroeconomic frameworks. Our main approach is to listen and amplify the voice of communities.

Box 4: International recognition of relevant human rights

Mining and mineral and metal processing industries can affect the fulfilment of a range of human rights, including the right to livelihood, which has been recognised as deriving from the right to life, liberty and the security of person, established in Article 3 of the United Nations Declaration of Human Rights (1948). Other relevant human rights derive from rights enshrined in the International Covenant on Economic Social and Cultural Rights (ICESCR, 1966), which recognises the inherent dignity of the human person and includes:

Article 1: Rights of all people to 'self-determination'. Article 1 also states that 'In no case may a people be deprived of its own means of subsistence'. This is the basis for internationally recognised rights of indigenous peoples, including the right to give (or deny) free, prior and informed consent (See Box 11).

Article 11: '...the right of everyone to an adequate standard of living'. This is also the basis for the human right to water. In November 2002 the UN Committee on Economic, Social and Cultural Rights recognised, in its general comment No. 15, that Article 11 includes the human rights to 'sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses'.

Article 12: '...the right of everyone to the enjoyment of the highest attainable standard of physical and mental health'. Key aspects of this right include safe drinking water and adequate sanitation; safe food; adequate nutrition and housing; healthy working and environmental conditions; health-related information and education; and gender equality.

The right to a healthy environment, was recognised by the UN General Assembly in 2022 and provides for a rights-based approach to environmental protection, including greater public participation in decision making, access to information, access to remedy for environmental abuses and a focus on the needs of vulnerable groups.

These rights are progressed in other international frameworks. For example, the Regional Agreement on Access to Information, Public Participation and Justice in Environmental Matters in Latin America and the Caribbean (Escazú Agreement, 2018) aims to guarantee the full and effective implementation of rights of access to environmental information, public participation in environmental decision making and access to justice in environmental matters in the region, and specifically provides for the protection of 'human rights defenders in environmental matters'.

Sources:

The Human Right to Water and Sanitation, UN-WATER

Human rights, World Health Organization

The Right to Health: Fact Sheet No.31, OHCHR

What is the Right to a Healthy Environment? UNDP

The Right to Life & the Right to Housing, OHCHR

3.2 Extraction processes: human rights and environmental impacts of bauxite mining by Mineração Río do Norte (MRN) in Oriximiná, Brazil⁷⁵

Mineração Rio do Norte (MRN) is a privately held Brazilian corporation⁷⁶ specialising in the extraction, processing and sale of bauxite. Its main operations are in the municipality of Oriximiná, State of Pará, where it mines several of the plateaus of the Trombetas basin.77 MRN's mining operations began there in 1979, with a major expansion of the mine in 2003.78 By 2019 MRN had extracted almost 450 million tons of bauxite.79 MRN is the biggest bauxite extractor in Brazil, 80 and since 2015 it has been responsible for between 39% and 48% of the total annual sales of bauxite in the country.81 If it were a country, MRN would qualify as the world's seventh-largest bauxite producing country based on 2020 and 2021 data on bauxite mine production.82

Below: Map of Brazil, locating Pará and the municipality of Oriximiná. Source: El País.



Mapa del estado del Pará, donde están las ciudades de Cachoeira Porteira, Oriximina y Óbidos. Portado Trombetas es el distrito industrial de Oriximina, donde queda la sede de la Minera Rio do Norte INFOGRAFIA (EL PAÍS)

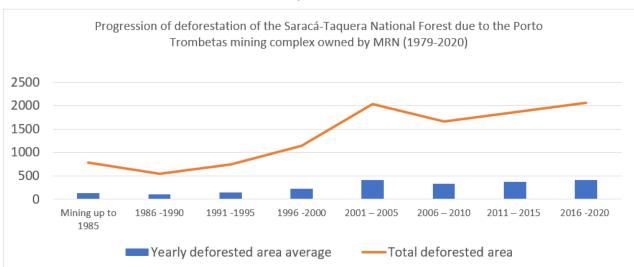
Research conducted by Brazilian civil society organisations and researchers with affected local communities has documented that MRN's mining operations in Oriximiná have caused the deforestation of extensive areas of tropical forest and other serious socioenvironmental impacts.83 The communities most directly affected include 811 Quilombola families and 289 families of riverine communities, comprising an estimated 6,490 and 1,735 people respectively, according to data by Comissão Pró-Índio de São Paulo from 2022. In 2020, research by Rocha Martins et al. discussed how deforestation caused by mining leads to other adverse impacts:

'Mining currently figures as one of most destructive economic activities over natural ecosystems. It brings various negative impacts to the environment, which starts with the complete removal of the local native vegetation and consequent wildlife disappearance. Following this, the topographic disassembling is done when finally the ore mining starts, which usually results in strong hydrobiogeochemical changes in the ecosystem.'84

In Oriximiná, the bauxite ore lies at an average depth of eight metres.85 Therefore, in addition to the complete removal of vegetation, 86 extraction involves excavations that change whole landscapes, including the position of natural and manmade features,87 resulting in a long-term loss of habitat and food for local wildlife as well as significant soil erosion. As Rocha Martins et al. note, ore mining frequently 'results in strong hydrobiogeochemical changes in the ecosystem'. These effects are very significant because, as mentioned above, in Oriximiná, MRN mines several plateaus of the Trombetas basin.

As reported by Wanderley in 2021, the acceleration of mineral extraction by MRN over time increased the speed of deforestation within the Saracá-Taquera National Forest, with the annual deforestation rate almost quadrupling between 2016 and 2020, reaching 413.35 hectares per year.88 The total loss of national forest area is in the order of 10,800 hectares over 41 years.89

In addition to directly causing deforestation, mining operations in the Brazilian Amazon also open up access to the forests for a range of other activities that lead to further deforestation.90 This includes mining infrastructure establishment, establishment of new villages to house a growing workforce, and development of mineral commodity supply chains.91



Below: Progression of deforestation of the Saracá-Taquera National Forest due to the Porto Trombetas mining complex by MRN (1979-2020), data table included in Annex. Source: Wanderley, 2021.92

All these changes have direct and serious impacts on the human rights of local communities. Deforestation displaces forest-dwelling communities from homes and economic activities such as harvesting and sale of fruit and nuts. For example, in the early 2000s MRN's mining operations deforested areas that riverine communities of Boa Nova and Saracá relied on for harvesting Brazil nuts, 93 an important source of income for these communities at the time. As highlighted by Golder Associates Brasil, a Brazil-based consulting company hired by MRN itself, in a 2022 report, people from the Boa Vista Quilombo, who live next to MRN's village, known as Porto Trombetas, have also reported significant impacts on their access and use of forest resources due to MRN operations.94 These are breaches to the right to livelihood, an integral element of the right to a dignified life.

Removal of topsoil creates huge quantities of dust and residue much of which ends up in water bodies.95 Brazilian researchers have documented how bauxite mining by MRN has had a significant impact on water quality and availability because of the large amount of water required for washing and extracting the ore.96 In the Amazon's interconnected river systems, water pollution spreads easily. For Quilombola and riverine communities, rivers, lakes and streams are a source of livelihood, transport and water for drinking, cooking and personal hygiene. As highlighted in a report by Comissão Pró-Índio de São Paulo, people from the riverine communities of Boa Nova and Saracá report impacts due to MRN's operations, such as changes in water quality and the lowering of water levels of igarapés, small bodies of water, with implications for health and fishing activity, 97 and thus, to the right to water, right to health

and right to livelihood. The Golder Associates Brasil 2022 report states that people from the Boa Vista Quilombo have also reported significant impacts on water quality and quantity caused by MRN operations, ⁹⁸ and that communities in Alto Trombetas 2 consider actions taken by MRN to address impacts on water, such as installing filters and monitoring, to be insufficient. ⁹⁹ Local communities also associate the alterations caused by mining and MRN's Porto Trombetas port on watercourses with a significant decrease in fish, an important source of food. ¹⁰⁰

People from the Boa Vista Quilombo report that the installation of MRN's village, industrial area and port involved embankment of the watercourses that they had used for generations for transportation and access to fishing grounds and chestnut groves. ¹⁰¹ While MRN has denied the impacts reported, no independent studies have been conducted to assess the impacts of its activities on watercourses. Christian Aid has previously documented how the loss of forests and biodiversity, combined with loss of territory and access to waterways, erode traditional ways of life and local/indigenous knowledge, which makes it harder for people to survive on their land and in turn, makes them more dependent on the mining companies. ¹⁰²

Box 5: Rights of indigenous and traditional peoples in Brazil

In Brazil, Quilombola (descendants of African peoples who fled enslavement in colonial times) and some Ribereños (riverine communities) fall into the legal category of 'traditional peoples and communities', which also encompasses indigenous peoples.

The UN Declaration on the Rights of Indigenous People, and the International Labour Organisation Indigenous and Tribal Peoples Convention (ILO 169) establish the right to give (or deny) free prior and informed consent (FPIC) to extractive activities on indigenous peoples' ancestral lands and provide for compensatory measures for any displacement. In Brazil, Quilombola as well as indigenous communities, are considered to have FPIC rights, although discussions continue on whether these rights apply to other traditional communities.

Quilombola and indigenous communities are entitled to formal recognition of their territories, and mining companies are required to undertake specific impact studies and prior consultation with them before mining projects can go ahead.

Nevertheless, the impacts of mining on traditional communities have been devastating, particularly for women. In Oriximiná, indigenous and Quilombola women have played a key role in collective struggles to claim their rights to land and a healthy environment.

Some of the territories of the Quilombola and riverine communities overlap with the protected Saracá-Taquera National Forest. 103 Since 2017, the Brazilian government has been conducting procedures to ensure the regularisation of these Quilombola territories. As a result, in 2018 the government published a recognition ordinance of two Quilombola territories. 104 All the areas for ore extraction covered by the concessions granted to MRN, which cover 123,757.12 hectares of native forests, 105 are located within the protected Saracá-Taquera National Forest. Brazilian civil society organisations have documented that in several instances, MRN has been granted a license for mining exploration in areas that overlap with the territories of Quilombola and riverine communities without obtaining free, prior and informed consent (FPIC).¹⁰⁶ In many of these cases, participatory, meaningful and comprehensive consultations were not conducted. According to Comissão Pró-Índio de São Paulo, this was the case in the licensing of the Monte Branco plateau in 2013, which partially overlaps with the Quilombola land of Alto Trombetas 2. The government only requested evaluations and a consultation for the renewal of the license in 2017.107 This consultation is currently ongoing. This was also the case in the licensing of the Aramã plateau in 2018 where the forest used by the riverine communities of São Francisco, São Tomé, Espírito Santo and São Sebastião was licensed without any prior consultation or dialogue. 108

The adverse human rights, social and environmental impacts of MRN's mining operations, if not adequately addressed, will continue to contribute to poor health, impoverishment and disempowerment. Although MRN stated in a 2020 sustainability report that it 'is committed to ensuring that necessary corrective measures [to address negative impacts to local communities] are implemented', 109 as highlighted by Golder Associates Brasil in a 2022 report, local communities have indicated that MRN is yet to deliver effective measures. 110

As a response to excerpts of a draft of this case study we shared, MRN sent us a statement on 11 August 2023. The most relevant parts of MRN's statement are the following:

The company complies with Brazilian standards and is constantly inspected by environmental agencies and audited by international institutions. It is also a benchmark in the reforestation of the Amazon biome by replanting mined-out areas exclusively with native species. In parallel, it develops a robust environmental monitoring and control program, the data and reports of which are duly registered with the environmental

The adverse social and environmental impacts of MRN's mining operations, if not adequately addressed, will continue to contribute to a poor health, impoverishment and disempowerment.

agencies, which make them available on their platforms for public access.

MRN has been improving its mechanisms to identify and correct possible human rights violations throughout its chain of employees, suppliers and partners, and does not tolerate any form of disrespect for people, the environment and human rights.

It also maintains permanent channels of dialog with the communities surrounding the project. Meetings, dialog forums and other daily relations actions are held that enable the permanent exchange of information, receiving complaints and grievances about the main aspects that affect the communities. Thus, engagement plans and social investments appropriate to each context are built according to community requirements.

The company ... adher[es] to international standards, and it is guided by values such as safety, care for the environment and respect for people.

While we appreciate that MRN sent us this statement, the company did not address many of the specific human rights and environmental concerns we raised and when it did address them, MRN did not provide materials to support its statements and often did not provide specifics, such as communities and places involved, timespans, or specific standards used.

Despite the concerns documented in this section, in 2022 and 2023, MRN received two certifications¹¹¹ from the Aluminium Stewardship Initiative (ASI), a non-profit standards setting and certification organisation based in Australia, which describes its mission as fostering responsible production and sourcing of aluminium and whose members include large mining and minerals and metals processing companies such as Hydro, Rio Tinto, MRN and Glencore. ASI was launched in 2012, with standards finalised and certifications initiated in 2018.112 The two ASI certifications received by MRN were the ASI Performance Standard, which covers 'environmental, social and governance requirements', 113 and the ASI Chain of Custody Standard, which concerns '[sustainability] requirements for the flow of Chain of Custody Material, including ASI Aluminium through the value chain'. 114 Certification for the two standards involves audits, site visits and collecting public information, but civil society organisations that monitor mining companies' impacts on human rights question the rigour of ASI's certification processes. Human Rights Watch and Inclusive Development International wrote in a letter to ASI in February 2022 that '[the organisation's] human rights standards and

assurance process lack the detail, rigor and transparency to adequately assess whether companies and their facilities are respecting human rights'.115 We find that the human rights criteria set in the December 2017 version of the ASI Performance Standard did not include critically important elements of any human rights due diligence process, such as stakeholder engagement.¹¹⁶ This version of the ASI Performance Standard was eligible to be used in ASI certifications until 31 May 2023.117

Although we did not contact ASI to give them an opportunity to comment on this due to time limitations, a spokesperson for ASI told Bloomberg the initiative strengthened its human rights criteria in response to the points made by Human Rights Watch and Inclusive Development International and that its certification process 'is designed to support rigor and integrity'.118 However, Jim Wormington, a senior researcher at Human Rights Watch, says 'more profound change is needed, including stronger community participation in audits...and more detailed standards that focus on impacts on the ground'. 119 We also find that the current version of the ASI Performance Standard, adopted in April 2023, provides a significant caveat for the application of important standards such as those on involuntary resettlement and FPIC. It provides that 'for new projects and major changes initiated pre-2022 [the criteria on these standards] appl[y] only to those projects initiated after the Entity joined ASI', 120 which in the case of MRN was December 2020.121 As MRN started its operations in 1979, this means the standards on these topics do not apply for projects and major changes initiated by MRN between 1979 and November 2020, which comprise more than 90% of MRN's years of operations. We also find some significant shortcomings in the audit report on the ASI Performance Standard regarding MRN, issued in January 2022. 122 Regarding the standard on indigenous people (Principle 9.3), while the auditors rated MRN as 'conformance', they stated:

'[MRN] has undertaken an Indigenous Peoples specific risk assessment which identified the loss of social licence and the collision of boats in the Trombetas River as two potentially significant risks. Both these scenarios were identified as potential and inherent risks as part of the Entity's recent risk assessment update.'123

Despite the significance of the issues identified, according to the public summary of the audit report, which is the only public information available, the auditors did not establish whether MRN has put in place or implemented adequate measures to mitigate these risks.

Thus, the cost of MRN's activities, in terms of environmental and social impacts, is a serious concern, particularly for the human rights of the marginalised communities who are disproportionately affected. In the next section, we consider whether the economic benefits are equitably shared.

Tax exemptions

Taxation is a business and human rights issue because of the important contribution tax revenues make to the domestic resources that states use to fulfil their human rights obligations and sustainable development commitments. Unfortunately, tax laws are not always sufficiently progressive or designed in the best interests of the public, with loopholes or tax exemptions that allow companies to avoid paying a fair share of tax. The granting of significant tax exemptions to large international corporations, particularly in extractive industries, is particularly questionable from a human rights perspective, as raised by international human rights experts.¹²⁴ These companies are unlikely to need additional incentives to operate where they do, which is mainly determined by the availability of the resources to be extracted, and their operations are likely to involve significant impacts on human rights and the environment.

In our 2022 report Profit before People and Planet, prepared together with the Financial Transparency Coalition and Latindadd, we found that MRN receives significant cumulative tax exemptions. 125 These include a tax waiver of 75% of the IRPJ, a corporate income tax for operations in the Brazilian Amazon, amounting to over US\$75 million between 2012 and 2021. This tax exemption was renewed in 2014 for ten years, so it continues to be applicable until 2023. 126 The value of just this tax exemption, over the ten-year timespan, amounts to more than what we have estimated the entire Oriximiná municipality to have generated in taxes, fees and charges over the same period of time. 127 This tax exemption alone is therefore a significant drain on Oriximiná's potential revenue.

In its 2022 annual report, MRN also acknowledged that it receives another tax exemption, the 'Benefício do Reinvestimento' (also applicable to companies operating in the Brazilian Amazon), to buy new machinery and equipment that are part of the production process. 128 MRN's total tax exemption can therefore reach up to 82.5% of its payable IRPJ. MRN has also substantially benefited from other tax exemptions that apply to goods intended for export. This has been the case because between 2012 and 2021, MRN's annual bauxite exports have represented a significant percentage of its total annual sales, ranging between 33% and 52% of its total annual sales. 129

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The multiple tax exemptions that MRN receives deprive the budgets of states and municipalities tasked with providing public services and investing in sustainable development. At the same time, these measures increase company profits and thus incentivise the continuation of industrial mining, perpetuating the unsustainable exploitation of the Brazilian Amazon by this sector. This foregone tax revenue is felt disproportionately by Quilombola, 130 indigenous and riverine communities, who have been custodians of the forests for centuries and who would benefit most from improved public services and environmental regulations. Thus, tax exemptions reinforce existing dynamics of intersectional social exclusion and serious regional inequalities in Brazil. 131 Although these exemptions have been adopted through laws, Brazil does not provide transparent reporting or a continued and robust assessment of them in the industrial mining sector. 132

Duties of Hydro regarding the human rights and environmental impacts of MRN's operations

In Hydro's response to our request for information on the human rights due diligence processes it has conducted for its operations and suppliers in Brazil, particularly regarding MRN and Alunorte, received on 25 August, Hydro stated that the company 'has a duty to carry out due diligence in accordance with the OECD guidelines, and a duty to account for the due diligence'. 133 The company discloses information on this in the Human Rights and Supply Chain section of Hydro's 2022 annual report. In it, Hydro lists the main potential adverse impacts it has and makes a brief description of mitigative activities, including in relation to Hydro's operations in Brazil, notably Alunorte and Paragominas. The company also reports that in 2022, it adopted a Human Rights Action Plan, which covers Hydro's operations in the state of Pará, Brazil, notably Alunorte, Albras and Paragominas. 134 So, as per Hydro's annual reporting, this plan does not cover Hydro's suppliers in Brazil, including MRN.

We focus in this subsection on the responsibilities of Hydro, a multinational company headquartered in Norway and controlled by the Norwegian government, 135 regarding the human rights and environmental impacts of MRN's operations. Hydro was the largest buyer of MRN bauxite between 2012 and 2021.136 In April 2023, Hydro disclosed that MRN supplies one third of the bauxite needs of Alunorte, 137 the world's largest alumina refinery outside China, also located in the Brazilian Amazon¹³⁸ and controlled by Hydro. In the preparation of our 2022 report *Profit before People and Planet*, Hydro disclosed that it is a member of the board of MRN and has been 'constantly

engaged with MRN', 139 further establishing Hydro's significant leverage over MRN and demonstrating a strong basis for its responsibilities in relation to MRN's operations. In April 2023, Hydro announced that it would sell its 5% ownership of MRN to Glencore, 140 and will therefore likely lose its board position; however, this transaction will not affect Hydro's continued heavy reliance on MRN for sourcing its bauxite. Hydro has disclosed that after the closure of this transaction and Glencore's acquisition of an additional 40% equity stake in MRN from Vale, which is expected in the second half of 2023, 'Glencore will continue to supply approximately 30% of Alunorte's long-term bauxite requirements from MRN'.141 Hydro also disclosed that there is 'a long-term supply agreement [regarding Alunorte's bauxite needs]' between Hydro and Glencore. 142 In addition, Glencore disclosed that '[m]ost of the bauxite purchased by Glencore from MRN will be supplied to Alunorte'143 This means it is highly likely that Glencore committed to supplying the mentioned amount of bauxite to Alunorte from MRN as per a contractual obligation under the long-term supply agreement with Hydro. All these elements demonstrate that Hydro will continue to have significant leverage over MRN after the closure of the mentioned transactions.

As will be discussed in the next subsection, Hydro will remain the largest shareholder, and the controlling party, of Alunorte following further transactions regarding Alunorte between Hydro and Glencore announced in April 2023. Therefore even after the reported transactions are closed, according to recognised international standards, specifically the UNGPs mentioned in Section 2, Hydro has the responsibility to conduct human rights due diligence in relation to MRN's mining operations. 144 This includes the responsibility 'to take appropriate action' to 'prevent or mitigate adverse human rights impacts directly linked to their operations ... by their business relationships'.145 In its human rights policy, Hydro recognises that 'businesses have a responsibility to respect human rights' and has set as of one of the principles of this policy that 'Hydro respects the human rights of all individuals and groups that may be affected by [its] operations'. 146 Hydro also commits to 'carry out risk-based [human rights] due diligence throughout [its] operations and supply chains to assess, prevent and address actual or potential adverse impacts on human rights that [it] may cause, contribute or be linked to'.147 The fact that Hydro will continue to have significant leverage over MRN after the closure of the transactions regarding MRN announced in April 2023 reinforces, according to recognised international standards, Hydro's duties regarding

the human rights and environmental impacts of MRN's operations.148

Yet, we have found little evidence of Hydro's compliance with these responsibilities. An analysis of Hydro's annual reports from 2018 to 2022 revealed that Hydro only made two mentions regarding the social and environmental impacts of MRN's operations. In 2021 Hydro's annual report, Hydro stated:

'In the municipality of Oriximiná in Pará, where the MRN bauxite mine is located, there is an ongoing dispute between Quilombola communities and Brazilian authorities regarding title to land owned by the federal government. The territory claimed by these communities encompasses certain areas that are planned to be mined by MRN in the future, but MRN is not a legal party in this conflict. Hydro has requested through MRN's board of directors and committees that the scope of the planned environmental and social impact assessment (ESIA) complies with local, national and international standards.'149

This action by Hydro is potentially a positive example of the company using its leverage as a shareholder and main buyer to direct MRN to ensure the planned environmental and social impact assessment related to the areas to be mined complies with local, national and international standards; however, it still falls short of Hydro fully complying with its human rights responsibilities in this regard. Its annual report only refers to potential new environmental and social impacts of land yet to be mined. This leaves out the countless issues regarding MRN operations that local communities have reported as having already caused significant harm and damage. Hydro's responsibility also goes beyond the direct areas that are mined by MRN, because the impacts of its operations are felt across a much wider geographical area- for instance, through the pollution of waterways. As a company that sources large amounts of bauxite from MRN, Hydro should be publicly reporting on the specific actions it is taking to mitigate these past and ongoing harms, as should other companies that source, or have sourced, significant amounts of bauxite from MRN.

Following the publication of our report, Profit before People and *Planet*, Hydro's 2022 annual report stated that:

'In the municipality of Oriximiná in Pará, where the MRN bauxite mine is located, there are Traditional Quilombola communities that are requesting formal title to their land. Hydro is constantly engaged with MRN through the board of directors and committees to ensure the project complies with national and international standards. MRN is currently engaged with the

Quilombolas communities in a formal consultation process for the implementation of new projects, following national and international standards, including ILO 169.'150

More generally, a spokesperson for Hydro said that 'Hydro subjects MRN to the same requirements as all [its] high risks suppliers, especially the Sustainability in the Supply Chain document' and that the ASI certification is one of the mitigative activities taken by MRN as per Hydro's request. 151

While the language in Hydro's 2022 annual report signals a welcome escalation of Hydro's engagement on the social and environmental issues surrounding MRN's work, we find that Hydro still fails to fully comply with its responsibility 'to take appropriate action' to prevent and mitigate adverse human rights impacts contributed by MRN's mining operations and that serious unresolved issues remain in MRN's operations. Hydro continues to source large amounts of bauxite from MRN, which, in addition to the human rights and environmental impacts it contributes to, is produced at a lower cost than other minerals for which tax exemptions do not apply. This boosts Hydro's profits at the expense of public coffers and human rights.

After many years of civil society campaigning, in June 2022, the Norwegian government adopted the Norwegian Transparency Act, ¹⁵² which legally requires larger enterprises that are resident in Norway to carry out human rights and decent work due diligence. The law also imposes other important duties on these companies, although unfortunately omits environmental considerations and still leaves significant gaps regarding access to remedies for victims. ¹⁵³ While these measures entered into force in July 2022 and therefore do not apply to the majority of the timespan of activities covered in this section of the report, this law is likely to be the most significant factor that will influence Hydro to improve its standards moving forward.

3.3 Refinement processes: human rights and environmental impacts resulting from alumina production by Alunorte

Alumina is the compound produced in the refinement of bauxite ore used to produce primary aluminium. Alumina refineries pose high risks to human rights and the environment. According to scientific studies, the alumina refining process produces very large amounts of a caustic byproduct, known as 'red mud', with 1 to 1.5 tonnes of red mud produced for every 1 ton of alumina. 154 Being highly alkaline and often containing compounds such iron and metallic oxides, red mud can be very harmful to people, waterways and ecosystems. Red mud is so

caustic that iron industries reportedly shy away from extracting the metal from it because the caustic waste destroys key components in their smelters. 155 Red mud is most often stored in massive waste ponds or dried mounds. 156 According to Science News by the American Association for the Advancement of Science, 'even when red mud remains contained, its extreme alkalinity can leach out, poison groundwater, and contaminate nearby rivers and ecosystems'.157

Alunorte is the world's largest alumina refinery outside China and is located in the city of Barcarena, in the state of Pará. 158 Alunorte produced 6.1 million tonnes of alumina in 2022¹⁵⁹ and 6.3 million tonnes of alumina in 2021.160 Since February 2011, Hydro has been its largest shareholder and the controlling party.161

Alunorte is not the only mining-related company operating in Barcarena, which complicates attribution of the devastating environmental and health consequences of these industries' activities on the city and its residents. However, serious issues specifically regarding Alunorte's actions have been raised by communities there for decades. 162 Among other concerns is the claim that Alunorte has not ensured sufficient capacity to safely store its toxic waste as it has scaled up its production over the years. 163 A spillover of toxic waste for which Alunorte was fined in 2009 was blamed by Vale (the company that owned Alunorte at the time) on 'rain that occurs once in a thousand years'. In February 2018, after heavy rainfall in the Barcarena region, flooding occurred at Alunorte. Hydro recognises that flooding occurred,164 but it claims that it only led to the discharge of rainwater and that 'there were no leaks or overflow from the bauxite residue deposit areas'. 165 Hydro sent us the following materials, which they submit confirm that 'there was no overflow from [Hydro's] deposits areas':

Ministério Público do Estado do Pará, Report of the technical visit No. 136/2018, 27 February 2018. 166 The report states that 'during the flyover [they did] on 17 February 2018 and their technical visit [to Alunorte] on 18 February 2008, they saw no signs that the banks of DRS 1 and DRS 2, [the two Alunorte's waste pools] had broken'.167 However, as mentioned in the report itself, these two inspections had a serious limitation: the inspectors only conducted a visual inspection.168 The technical visit on 18 February 2018 had, according to this report, another limitation: the Ministério Público's staff conducted it 'without knowledge of some technical data'.169

- Alunorte's site inspection, particularly DRS 1 and DRS 2, by the Pará Environmental Agency (SEMAS), the Barcarena Secretary for Environment and Economic Development, the Environment Secretary of Abaetetuba municipality and the Institute Evandro Chagas on 18 February 2018. The inspection report states that 'there was no visual evidence that Hydro's dam had broken'. As can be inferred from this text, these authorities also only conducted a visual inspection.
- Notarial minutes of a statement included in the recordings of a session of the Brazilian Congress on 13 March 2018, available on its website, made by Fernanda Pirilo, General Coordinator of Environmental Emergencies at IBAMA. The date of the notarial minutes was 9 April 2018.
- Report by 2 SGT BM Daniel Angelins Rodrigues, commander of the Fire Guard No 6 GBM in Barcarena, who inspected Hydro Alunorte installations on 17 February 2018.

Local communities maintain that there was discharge of untreated water from Alunorte at the time. ¹⁷⁰ Following this incident, Alunorte was fined 20 million Brazilian reais (US\$6.1 million at the time) by the Ibama, the Brazilian environmental agency, 'for carrying out potentially polluting activity without a valid licence [at DRS 2, one of its waste pools], and ... for operating a drainage pipe [at the Alunorte industrial area] without a licence', ¹⁷¹ and ordered it to halt using its waste pool DRS 2 and the drainage pipe referred to. ¹⁷² Brazilian authorities also ordered Alunorte to temporarily curtail production at the plant. ¹⁷³ The regional judge who ruled that decision described the situation as follows:

'Against this backdrop, in which we observe the persistent occurrence of environmental damages, both already verified and potentially produced due to the rainy season that is still underway, it is evident that the company's activity cannot be kept fully operational, due to the insecurity arising from its effluent [untreated wastewater] storage and treatment system, in a situation that increases the risk of environmental damage.'174

In September 2018, Alunorte agreed with Brazilian authorities to pay an additional 160 million reais (US\$38.5 million at the time) in relation to this February incident. 175

In 2021 a group-action lawsuit was filed in the Netherlands, which alleges that 'the incorrect disposal of toxic waste' from Alunorte's operations in the area for years has caused a variety of health problems such as cancer, hair loss, neurological

dysfunction, birth defects and increased mortality, has polluted rivers, streams and the rainforest, and has destroyed economic opportunities. 176 The lawsuit was brought by CAINQUIAMA -Associação dos Caboclos, Indigenas e Quilombolas da Amazônia (the Association of Caboclos, Indigenous, and Quilombolas of the Amazon) and nine Brazilian individuals who are part of the indigenous and Quilombola communities and are residents of the area affected by Alunorte's activities. 177 According to one of the law firms representing the claimants, Pogust Goodhead, 'together they seek proper compensation for damages suffered as a result of at least 9 (nine) serious environmental disasters involving petroleum coke (black powder derived from petroleum), silicates, iron and caustic soda leakages from Alunorte's waste tanks into Para and Murucupi Rivers.' 178 In October 2022, the Rotterdam District Court in the Netherlands ruled that the case will proceed to a discussion of the merits before the same court. 179 According to reports, Pogust Goodhead said the claimants were not filing the lawsuit in Brazil because they were 'frustrated at a lack of progress in the Brazilian legal system'.180

Despite these unresolved issues, in June 2019, Alunorte received certifications for ASI's Performance Standard and Chain of Custody Standard. 181 As discussed above, we consider that these certifications do not have sound criteria nor are sufficient to ensure respect for human rights by mining and mineral and metals processing companies in the aluminium value chain.

Furthermore, Alunorte has received significant exemptions on corporate income tax. According to information disclosed by Hydro, these 'reduc[ed] the tax rate on operating income [to as low as] 20% up to 2017', 182 down from the nominal corporate income tax of 34%. 183 The most significant of these tax exemptions is the above-mentioned waiver of 75% of IRPJ to companies that operate in the Brazilian Amazon, specifically in Superintendência do Desenvolvimento da Amazônia (SUDAM; the Superintendency for Development of the Amazon Region). 184 Hydro in Brazil also benefits from a 15-year deferral of Imposto sobre as operações relativas à circulação de mercadorias e sobre prestação de serviços de transporte interestadual, intermunicipal e de comunicação (ICMS), an indirect value-added tax, granted in 2015.185 In its response to our 2022 Profit before People and Planet report, Hydro claimed this is a deferral of tax credits, 186 but in its 2020 annual report, Hydro noted that a 'discontinued ICMS deferral [a proposal by Pará policymakers] ... may cause material negative effect on Hydro's profitability', 187 and recognised it as one of the company's operational risks. 188 This

demonstrates the significance of the 15-year ICMS deferral that Hydro currently enjoys. This, alongside other tax benefits, contributes to Hydro's profits.

Regarding the economic benefits of Hydro's operations in the Brazilian Amazon, a spokesperson for the company said on 13 August 2023 that 'Hydro has invested more than Brazilian Reals 10 billion in Pará in the last decade and around 80% of the [approximate] 15,000 jobs in the country are occupied by people from Pará, including direct and indirect jobs'.189

Duties of Hydro regarding the human rights and environmental impacts of Alunorte's operations

In addition to being the largest shareholder and the controlling party of Alunorte, Hydro sources large amounts of alumina from Alunorte, disclosing in 2022 that it 'receives almost all [its] alumina from ... Alunorte'. 190 In August 2023, Hydro reiterated this, disclosing that its five wholly owned primary aluminium production plants in Norway source 'almost all alumina ... from Alunorte'.191 In April 2023, Hydro also disclosed that the Alunorte alumina refinery 'is a key raw material source for Hydro's smelter operations, including the adjacent Albras smelter, Norwegian primary aluminium smelters, and external customers'.192

Being the largest shareholder and the controlling party of Alunorte and being a main, if not the main, buyer of Alunorte's alumina, means that Hydro has a responsibility in international human rights law frameworks for the unresolved issues around the environmental and human rights impacts of Alunorte in the Brazilian Amazon since at least February 2011, when Hydro became the largest shareholder. 193 For several years and until 29 June 2023, Hydro owned a 92% equity stake in Alunorte and has been its controlling party. In its 2022 annual report, Hydro disclosed that 'the non-controlling owners [of Alunorte] have limited influence on the operational decisions'. 194 Hydro has said that in 2022, it took some measures as part of its human rights due diligence process for its operations in Pará, Brazil, which include Alunorte. 195 Notably, these measures included 'conduct[ing] a ... dialogue process engaging 178 community leaders in Barcarena to understand their perspective on key issues associated with [Hydro's] operations'.196 While this engagement is a positive step, we find that the actions taken by Hydro still fall short of fully complying with its responsibilities regarding the unresolved issues around the environmental and human rights impacts of Alunorte in the Brazilian Amazon. Among other things, as per its annual reporting, Hydro has fallen short of adopting a comprehensive plan to remediate the issues raised.

In April 2023 Glencore disclosed that 'Alunorte is amongst the lowest cost refineries in the world'197, and as per Hydro's annual reporting, Hydro's profits are very significant - between 2020 and 2022 it doubled its earnings before financial items, tax, depreciation and amortisation. 198 It is therefore concerning that Hydro announced in February 2023 that it is further cutting costs in its alumina production operations to continue increasing its profit margins. 199 The large majority of Hydro's alumina production operations take place in the Brazilian Amazon and include bauxite as a main cost driver. This push for additional cost cuts risks potentially increasing pressure on Alunorte, MRN and Hydro's Paragominas bauxite mine and their staff to neglect critical safeguards, particularly safety, human rights and environmental standards.

Hydro announced in April 2023 that it would sell a 30% equity stake of its Alunorte shareholdings to Glencore,200 a transaction which had an effective date of 30 June 2023,201 and is expected to be closed in the second half of 2023. After this transaction is closed, Hydro will remain Alunorte's largest shareholder, with a 62% equity stake, and its controlling party, 202 and this transaction will not diminish the large amounts of alumina Hydro sources from Alunorte each year.²⁰³ Therefore, after this transaction is closed, according to recognised international standards, Hydro will continue to have important duties related to the human rights and environmental impacts of Alunorte's operations in the Brazilian Amazon.

3.4 Automotive manufacturers across Europe and their first-tier suppliers

In a report published in July 2021, Human Rights Watch and Inclusive Development International found that 'the human rights impact of alumin[i]um [production] - and bauxite mining in particular – remains a blind spot for the car industry'.²⁰⁴ They added:

'Although car companies' knowledge of alumin[i]um supply chains varies, none of the nine companies that responded to [the report's authors] had, prior to being contacted for this report, mapped their alumin[i]um supply chain to understand the particular human rights risks within it.'205

A February 2023 Bloomberg report documented that bauxite mined by MRN and alumina produced by Alunorte are part of the aluminium supply chain of Ford's F-150 electric pickup and four of Ford's first-tier suppliers.²⁰⁶ Specifically, it demonstrated that four of Ford's first-tier suppliers use aluminium purchased from Alcoa or Rio Tinto smelters in Canada's Quebec province, which receive significant amounts of alumina from Alunorte, to

'The human rights impact of aluminum and bauxite mining in particular - remains a blind spot for the car industry'.

Human Rights Watch and Inclusive **Development International**

produce the components they supply to Ford. As mentioned, Alunorte sources approximately one third of its bauxite needs from MRN.

Focusing on Europe, our research into the integration of alumina produced by Alunorte in the supply chain of automotive manufacturers, including electric vehicle manufacturers, finds that automotive manufacturers across Europe, including Mercedes-Benz and Jaguar Land Rover, 207 and their first-tier suppliers, source significant amounts of aluminium components from Hydro.²⁰⁸ Hydro discloses that it supplies these components (which include components for electric and hybrid vehicles²⁰⁹) to these companies directly from its primary aluminium plants in Norway²¹⁰ and through one of its business arms, Hydro Extrusions,²¹¹ from a network of plants in Europe specialising in serving the automotive sector,212 including Hydro's extrusions plants in Székesfehérvár, Hungary and in Tønder, Denmark. To confirm that these components are made using significant amounts of alumina produced by Alunorte and, in turn, bauxite mined by MRN, we sent requests for information twice to Hydro, Mercedes-Benz and Jaguar Land Rover in April 2023. The companies did not reply during the research period for this report. However, we were able to conduct our own research by examining hundreds of public documents. We sent excerpts of a draft of this case study to the companies mentioned and they then responded to us.

Hydro's extrusions plant in Tønder, Denmark

Based on the information presented in this subsection, we suggest that a significant proportion of the aluminium components that Hydro supplies to automotive manufacturers across Europe and their first-tier suppliers are made of primary aluminium, which is very likely to be made using significant amounts of alumina produced by Alunorte in the Brazilian Amazon.

Firstly, Hydro has disclosed that 'according to historical data, the flow of primary aluminium from Hydro's Aluminium Metal to Hydro's extrusions plant in Tønder amounts to more than 50% of the total aluminium sourcing of the latter'.213 This indicates that, as of the time of completion of this report, this plant relies mostly on primary aluminium to produce the extrusions it provides to the automotive sector and that Hydro's Aluminium Metal business area supplies the primary aluminium to this plant. To establish whether a significant proportion of the primary aluminium that Hydro's extrusions plant in Tønder sources is produced by Hydro itself, which in turn is produced using significant amounts of alumina coming

from Alunorte, we asked Hydro specific information on this covering the last five years. Hydro was only able to provide partial, mostly generic information on this, citing commercial reasons.²¹⁴ In the absence of transparency, we have had to rely on public and free information instead. Based on Hydro's annual reporting, we were able to calculate that approximately 71% of the total tonnes of primary aluminium that Hydro's Aluminium Metal sourced in 2022 was primary aluminium produced by Hydro itself,215 and that in 2021, it was approximately 73%.216 This means that it is highly likely that a high percentage of the primary aluminium that Hydro's Aluminium Metal supplies to Hydro's extrusions plant in Tønder is primary aluminium produced by Hydro itself.

Secondly, Hydro has also disclosed that its five wholly owned primary aluminium production plants in Norway - ie, Sunndal, Karmøy, Årdal, Husnes, and Høyanger, 217 which are run on hydropower²¹⁸ – produced 87% of Hydro's primary aluminium produced in Europe in 2022²¹⁹ and have produced 100% since 2023.²²⁰ Moreover, Hydro has disclosed that its extrusions plant in Tønder, Denmark 'sources low-carbon aluminium from Hydro [itself]'. 221 According to Hydro's own terminology, low-carbon aluminium refers to primary aluminium produced using hydro, wind or solar-generated power,222 which is the case for the primary aluminium produced by Hydro's plants in Norway. Norway's trade statistics demonstrate that exports of several components made of primary aluminium from Norway to Denmark have been significant from 2019 to 2022.²²³ Based on this, it is reasonable to infer that it is highly likely that large amounts of the primary aluminium used by Hydro's extrusions plant in Tønder, Denmark come from one or more of Hydro's five wholly owned primary aluminium production plants in Norway.

Thirdly, Hydro has disclosed that its five wholly owned primary aluminium production plants in Norway source 'almost all alumina ... from Alunorte'.224We also established this through our research: first, because primary aluminium is by definition produced from smelting alumina and Hydro has disclosed that it 'receives almost all [its] alumina from ... Alunorte', 225 and additionally, in April 2023, Hydro disclosed that Alunorte's alumina refinery 'is a key raw material source for Hydro's smelter operations, including ... Norwegian primary aluminium smelters';226 and second, Norway is the principal country destination of the alumina produced by Alunorte, according to information disclosed by Hydro.²²⁷

In the absence of transparency, we have had to rely on public and free information

In sum, it is reasonable to submit that the components made of primary aluminium that Hydro's extrusions plant in Tønder supplies to automotive manufacturers and their first-tier suppliers across Europe are highly likely made using significant amounts of alumina produced by Alunorte in Brazil, which, as discussed above, sources approximately one third of its bauxite needs from MRN, amounting in 2022 to approximately 5,506 kilotonnes.228

While Hydro has said that it will increase the use of recycled aluminium in its extrusions plants in Tønder, Denmark and Székesfehérvár, Hungary, in the following years, 229 it is important to note that recycled aluminium produced by Hydro may include, according to Hydro itself, up to 25% of primary aluminium. 230 It is not clear why this should be the case. Relatedly, Hydro often refers to some of the primary aluminium it produces as 'low-carbon aluminium'.231 Hydro's own terminology refers to this as primary aluminium produced using hydro, wind or solar-generated power.²³² However, this category could include primary aluminium that is nevertheless unsustainable because of the carbon emissions resulting from deforestation and other impacts on human rights and the environment of bauxite mining and alumina processing. Both definitions suggest a lack of transparency regarding the source of the aluminium and a lack of concern regarding the overall environmental impacts. And clearly, both 'lowcarbon' and 'recycled' aluminium may be produced using alumina sourced from Alunorte.

Hydro's extrusions plant in Székesfehérvár, Hungary

According to Hydro, its extrusion plant in Székesfehérvár, Hungary, which is the largest aluminium extrusion plant in Europe, 233 'mainly serves automotive customers', 234 and 'is a selected original equipment manufacturer (OEM) partner, developing new aluminium ... products for the ... electrical vehicle market'.235 Hydro adds the following regarding its supply operations from this plant for the electric vehicle market:

'[This extrusion plant] has been producing structural components for electric cars since 2012 ... and its products are used in most of the premium electric cars produced in Europe. [In September 2020], the plant surpassed the delivery of 10,000 tonnes of aluminium profiles to electric vehicle manufacturers...'236

It is likely that components produced from primary aluminium supplied by this plant are made using significant amounts of alumina produced by Alunorte in Brazil, given the circumstantial evidence set out.237 Hydro has stated that

...it is reasonable to submit that the components made of primary aluminium that Hydro's extrusions plant in Tønder supplies to automotive manufacturers and their first-tier suppliers across Europe are highly likely made using significant amounts of alumina produced by Alunorte in Brazil...

'according to historical data, the flow of primary aluminium from Hydro's Aluminium Metal business area to this plant amounts to about 30% of the total aluminium sourcing of the latter'. 238 This indicates that, as of the time of completion of this report, primary aluminium amounts to approximately a third of the total sourcing of this plant. In addition, as discussed, recycled aluminium produced by Hydro may include, according to Hydro itself, up to 25% of primary aluminium. 239

In this report we can only make reasonable inferences based on the information available, but it is important to emphasise that it is the responsibility of each of the automotive manufacturers and their first-tier suppliers that source aluminium components from Hydro's plant in Székesfehérvár, Hungary and any other Hydro plant in Europe to investigate and report on the sources of their raw materials and associated supply chains, and demonstrate that they are fully complying with the responsibility to conduct human rights due diligence in relation to these.²⁴⁰This includes the responsibility 'to take appropriate action' to prevent and mitigate any adverse human rights impacts directly linked to their operations, products or services through their business relationships.²⁴¹ According to the UNGPs, 'in order to account for how they address their human rights impacts [which is an integral element of business duty to carry out human rights due diligence], business enterprises should be prepared to communicate this externally, particularly when concerns are raised by or on behalf of affected stakeholders.'242

The cases of Mercedes-Benz and Jaguar Land Rover

Mercedes-Benz and Jaguar Land Rover are two of the automotive manufacturers that source significant amounts of aluminium components from Hydro. In December 2022, Hydro disclosed that '[it] has been supplying Mercedes-Benz with aluminium components for many years'.243 Mercedes-Benz reported similarly in a press release issued in December 2022.244 However, the two companies have said little more about this publicly. In December 2022, they announced a new partnership for the period from 2023 to 2030.245 While this includes plans for increasing the use of secondary materials from post-consumer scrap to produce aluminium components,246 it also includes supply of components made of primary aluminium. We have concluded this because Hydro has disclosed that it 'will deliver its first volumes of aluminium with a footprint below 3.0 kg CO2/kg aluminium [from mine to metal], Hydro REDUXA 3.0, to Mercedes-Benz in 2023'.247 It adds that 'the product will be introduced to a range of Mercedes-Benz models including their [electric] EQ models'.248 The fact that Hydro refers to 'from mine

to metal' to quantify the carbon footprint of this type of aluminium makes clear that it refers here to primary aluminium. The fact that this product has a significantly lower carbon footprint than the global average of 16.7 kg CO_2 /kg aluminium, 249 due mainly to Norway's significant hydropower resources, is important but should not detract from the other human rights and environmental impacts of primary aluminium production as described above.

While our requests to Hydro and Mercedes-Benz for more information on the type of aluminium used to produce the components that Hydro supplies to Mercedes-Benz and the sourcing of the primary aluminium used went unanswered, we found that Hydro has disclosed that this product, Hydro REDUXA 3.0, is available from its five wholly owned primary aluminium production plants in Norway – ie, Sunndal, Karmøy, Årdal, Husnes and Høyanger.²⁵⁰As mentioned above, since February 2023 these plants have produced 100% of the primary aluminium that Hydro produces in Europe. Therefore, it is reasonable to infer that these Hydro plants have very likely supplied the primary aluminium REDUXA 3.0 to Mercedes-Benz at least since February 2023. As discussed above, Hydro has disclosed that its five primary aluminium production plants in Norway source 'almost all alumina ... from Alunorte'.²⁵¹

Based on the above, it is reasonable to submit that the primary aluminium that Hydro is supplying to Mercedes-Benz, Hydro REDUXA 3.0, including for its electric vehicles, at least since February 2023, is highly likely made using significant amounts, if not exclusively, of alumina produced by Alunorte, which, as mentioned above, sources one third of its bauxite needs from MRN.

Hydro also announced in May 2023 that its plant in Årdal, Norway 'will produce a new low-carbon aluminium alloy for Mercedes-Benz', ²⁵² made using both primary aluminium and 'a minimum of 25% post-consumer scrap content...which will be integrated into models such as...EQS and EQE', ²⁵³ both of which are electric cars, as early as in the summer of 2023. ²⁵⁴ As mentioned above, Hydro has disclosed that its five primary aluminium production plants in Norway source 'almost all alumina ... from Alunorte'. ²⁵⁵ Therefore, it is very likely that the new low-carbon aluminium alloy that Hydro's plant in Årdal, Norway will produce for Mercedes-Benz ²⁵⁶ from the summer of 2023 will be made using significant amounts of alumina produced by Alunorte.

The development of low-carbon aluminium, including the production of REDUXA 3.0 and the new aluminium alloy that Hydro's plant in Ardal, Norway will produce for Mercedes-Benz, is a positive development. The increased use of secondary aluminium will contribute to mitigating the adverse impacts of bauxite mining and alumina processing. However, this should not detract from the longstanding and in many cases irreversible human rights and environmental impacts that bauxite mining in Brazil and elsewhere have often had.

The lack of transparency within Europe on commodity flows and the lack of replies to our requests for information from Mercedes-Benz and Hydro during our research prevented us from doing the same assessment regarding other aluminium components that Hydro supplies, and has supplied for years, to Mercedes-Benz. Despite this, given the nature of the information we present in this report, including Hydro's disclosure that '[it] has been supplying Mercedes-Benz with aluminium components for many years',257 we maintain that the burden is on Mercedes-Benz and its first-tier suppliers that source aluminium components from Hydro to investigate and report on whether these components are produced using significant amounts of primary aluminium made using significant amounts of alumina from Alunorte, and if this is the case, demonstrate that it is fully complying with the responsibility to conduct human rights due diligence in relation to Alunorte and MRN.

Hydro has also disclosed that it 'serves Jaguar Land Rover as a long-term partner and supplier of extruded aluminium solutions[,] includ[ing] elements of the body structure, air suspension systems and exterior trim'.258 Hydro added that it 'deliver[s] components to [Jaguar Land Rover] from plants in Hungary, Sweden and the UK'.259 Jaguar Land Rover is a multinational automotive manufacturer company formed in accordance with the legislation of the United Kingdom. Given the discussed lack of transparency on commodity flows within Europe, we sent requests to Hydro and Jaguar Land Rover twice in April 2023 asking for information on the type of aluminium used to produce the components that Hydro supplies to Jaguar Land Rover and the sourcing of the primary aluminium used. Neither company replied. Due to this, we were not able to definitively establish whether or not some of the aluminium components that Hydro supplies, and has supplied, to Jaguar Land Rover are made using alumina produced by Alunorte. Despite the absence of conclusive evidence, Hydro's disclosure that it 'deliver[s] components to [Jaguar Land Rover] from plants in Hungary', 260 as well as plants in two other countries, means that it must do so from its plant in Székesfehérvár, Hungary as this is the

The development of lowcarbon aluminium...should not detract from the longstanding and in many cases irreversible human rights and environmental impacts that bauxite mining in Brazil and elsewhere have often had.

only plant Hydro has in this country. As concluded above, it is likely that components produced from primary aluminium at Hydro's plant in Székesfehérvár, Hungary, are made using significant amounts of alumina produced by Alunorte, given the circumstantial evidence set out.

Given the nature of the information we present in this report, we maintain again that the burden is on Jaguar Land Rover and its first-tier suppliers that source aluminium components from Hydro to investigate and report on whether these components are produced using significant amounts of primary aluminium made using significant amounts of alumina from Alunorte, and if this is the case, demonstrate that it is fully complying with the responsibility to conduct human rights due diligence in relation to Alunorte and MRN.

3.5 Responsibilities of automotive companies that source significant amounts of aluminium components from Hydro

Based on the information we have presented and well-recognised standards of international law on business and human rights, tort law, environmental law and new approaches in company law, ²⁶¹ this report maintains that any automotive manufacturer that directly or through first-tier suppliers sources aluminium components made in whole or in part from primary aluminium from Hydro, including Mercedes-Benz and Jaguar Land Rover, has the responsibility to conduct human rights due diligence in relation to Alunorte and MRN's operations in the Brazilian Amazon. ²⁶² This includes the responsibility 'to take appropriate action' to prevent and mitigate adverse human rights impacts directly linked to their operations, products or services through their business relationships. ²⁶³

The fact that several automotive manufacturers in Europe source aluminium components directly from Hydro, which has been the largest shareholder and controlling party of Alunorte since February 2011, strengthens this responsibility. In line with Principle 19 of the UNGPs, which concerns companies' duty to integrate the findings from their human rights impact assessments across relevant internal functions and processes, and take appropriate action, sourcing directly from a company is an important basis for leverage in addressing adverse human rights impacts related to a business relationship with another entity.²⁶⁴ The Commentary to the UNGPs adds: 'If the business enterprise has leverage to prevent or mitigate the adverse impact, it should exercise it'.²⁶⁵ Mercedes-Benz and Jaguar Land

Rover have adopted human rights policies that explicitly claim to be in line with the UNGPs and commit to undertaking human rights due diligence activities to identify, prevent and mitigate adverse human rights [as well as environmental] impacts of their operations, including through their business relationships.266

Below: Infographic showing how European car manufacturing, including for electric cars, is likely tied to alumina and bauxite, the production of which involves serious human rights and environmental concerns in the Brazilian Amazon



Note: This infographic only includes the plants and facilities covered in our case study. As discussed in this report's body, this supply chain covers other suppliers.

Yet, in terms of compliance with these responsibilities, we have found little evidence that these policies are adequately implemented in relation to Alunorte's and MRN's operations in the Brazilian Amazon. While Mercedes-Benz has reported that it has taken some measures to seek the sustainability of its aluminium value chain (see Box 6), an analysis of its sustainability reports and annual reports from 2019 to 2022 revealed that Mercedes-Benz has not reported any action to address the detrimental human rights and environmental impacts contributed by Alunorte's or MRN's operations in the Brazilian Amazon. In its response to excerpts of this case study, Mercedes-Benz said:

> 'Building on [its] raw material assessment, ... [Mercedes-Benz] engage[s] in regular dialogues with their suppliers and on the ground assessments, including in Brazil.'267

While the actions described by Mercedes-Benz are potentially important, the company did not provide any specifics on the dialogues and on the ground assessments it said it had conducted in Brazil. It did not specify whether Alunorte and MRN were among the suppliers it has had regular dialogues with, nor when these dialogues started or which criteria were used for the on the ground assessments. As mentioned, according to the UNGPs, 'in order to account for how they address their human rights impacts [which is an integral element of business duty to carry out human rights due diligence], business enterprises should be prepared to communicate this externally, particularly when concerns are raised by or on behalf of affected stakeholders. '268 Therefore, based on the information we have, we conclude that Mercedes-Benz is not fully complying with its human rights and environmental responsibilities under international law in relation to Alunorte and MRN, including the responsibility to conduct human rights due diligence.

Similarly, while Jaguar Land Rover has reported that responsible supply chain management is one of the focus areas of its sustainability strategy,269 an analysis of its annual reports from 2018 to 2022 revealed that Jaguar Land Rover has not reported any action to address the detrimental human rights and environmental impacts contributed by Alunorte's or MRN's operations in the Brazilian Amazon. As a response to excerpts of a draft of this case study we shared, Jaguar Land Rover sent us the following statement on 11 August 2023:

'Jaguar Land Rover is committed to ensuring our supply chain upholds our corporate sustainability and social responsibility standards. We have an active ongoing programme of human rights protection and anti-slavery measures, both for our own operations and our supply chains. We are not aware of any reports of human rights infringements within our supply chains and we continually take steps to continue driving transparency and engagement, including annual assessment of risk and follow up, to confirm our value chain meets the highest standards on Human Rights.'

While we appreciate that Jaguar Land Rover sent us this statement, the company did not indicate which specific measures it has taken to fulfil its human rights and environmental obligations under international law in relation to Alunorte and MRN. Therefore, based on the information we have, we conclude that Jaguar Land Rover is not fully complying with these obligations in relation to Alunorte and MRN, including the responsibility to conduct human rights due diligence.

Box 6: Significant aluminium supply chain sustainability measures recently reported by Mercedes-Benz

In 2022, the Mercedes-Benz Sustainability Report reported that the company has done a '[human rights] assessment of aluminium [as one of the key raw materials it uses]', specifying some of the 'prioritised risk areas', notably 'modern slavery (including forced labour), community rights and indigenous rights, and environmental risks with impact on human rights' (page 226). In its response to excerpts of this case study, Mercedes-Benz said that they covered bauxite in their '[human rights] assessment of the 24 raw materials [they] have identified as critical'. In the mentioned report, Mercedes-Benz also said that it 'intends to further supplement [existing] measures ... in 2023 according to the risk profile' (page 226). In the same report, the company adds that:

'[A]s part of the new awarding of contracts for selected components containing aluminium (aluminium raw materials, wheels and battery housings), [it] has been reviewing the corporate due diligence measures of potential Tier-1 suppliers in raw material supply chains since 2022. If it is not adequately performed, the company requires obligatory measures as a prerequisite for contract awards.' (page 226)

In its 2022 Sustainability Report, the company reported that in 2022, it introduced a new contractual document 'covering sustainability requirements for suppliers', entitled 'Responsible Sourcing Standards', which includes minimum requirements on human rights due diligence and environmental protection (page 109). Mercedes-Benz has also stated that '[it] has applied [this new contractual document] to all contract award processes since 2023' (page 109).

On its website, it has said that it 'will in the future only source primary alumin[i]um certified by the Aluminum Stewardship Initiative (ASI) for stamping plants and foundries in Europe. This certification ... will be rolled out to ... locations outside Europe in the medium term. ... With immediate effect, [ASI's] Chain of Custody Standard becomes a key criterion for awarding contracts of aluminum volumes.' In its 2022 Sustainability Report, the company has said that it seeks to increase the proportion of recycled aluminium it uses (page 128).

Time-bound commitments by Mercedes-Benz are limited to its application of its Responsible Sourcing Standards to all contract award processes since 2023 and its announced intention to immediately use ASI's Chain of Custody Standard as an important criterion for awarding contracts of aluminium. More fundamentally, for the reasons explained previously, ASI's certifications are not sound criteria nor sufficient to ensure human rights respect by suppliers.

We do not include here measures reported by Mercedes-Benz regarding bauxite extraction in Guinea because this is unrelated to bauxite mining in Brazil, our case study.

Sources:

Mercedes-Benz Group Sustainability Report 2022

Our activities in the aluminum supply chain, Mercedes-Benz Group

Mercedes-Benz AG and Hydro join forces to pioneer a sustainable aluminium supply chain

3.6 Findings

Our research demonstrates that the largely voluntary approach adopted in national and international frameworks aimed at ensuring human rights protection in the context of business operations, including energy and related sectors involved in the energy transition, is inadequate to prevent, mitigate and remedy the human rights violations and environmental degradation caused by industrial bauxite mining companies and metal processing companies such as MRN and Alunorte, respectively, both operating in the Brazilian Amazon. These include violations to the right to water, right to health, right to a healthy environment, right to free, prior and informed consent (FPIC) and right to livelihood, which are integral elements of the right to a dignified life. Where some legislation and regulations are in place, inadequate enforcement is an additional problem. Transforming raw bauxite into aluminium is also very energy intensive and usually releases a range of greenhouse gases. Despite their often devastating impacts, these sectors receive significant tax exemptions that allow them to keep a larger share of their profits than would otherwise be the case, diverting much needed revenues from the budgets of states and municipalities tasked with providing public services and investing in sustainable development.

As our research demonstrates, international companies like Hydro have significantly benefited from the operations of companies like MRN and Alunorte based in the Brazilian Amazon, as well as from the policies that enable their operations. Hydro's shareholding in and large sourcing from these companies, as well as the tax incentives that enable MRN and Alunorte to sell their products more cheaply, mean Hydro benefits from significant profits. Hydro's shareholding in and large sourcing from MRN and Alunorte also give Hydro significant influence over these companies. Our research finds that Hydro has failed to fully comply with its differentiated responsibilities regarding the serious human rights issues and environmental impacts of MRN's and Alunorte's operations. Also concerning is Hydro's resolution to increase profit margins by further cutting costs in its alumina production operations, which mostly take place in the Brazilian Amazon and include bauxite as a main cost driver. 270 This could increase pressure on Alunorte, MRN and Hydro's bauxite mine Paragominas and their staff to neglect critical safety, human rights and environmental standards. In April 2023 Glencore disclosed that 'Alunorte is amongst the lowest cost refineries in the world'.271 Hydro's profits are already very significant - between 2020 and 2022 it doubled its earnings before financial items, tax,

Our research finds that Hydro has failed to fully comply with its differentiated responsibilities regarding the serious human rights issues and environmental impacts of MRN's and Alunorte's operations.

Also concerning is Hydro's resolution to increase profit margins by further cutting costs in its alumina production operations, which mostly take place in the **Brazilian Amazon and include** bauxite as a main cost driver.

depreciation and amortisation.²⁷² There is no reason for Hydro to perpetuate practices in industrial mining and mineral and metal processing that contribute to human rights and environmental degradation in the Brazilian Amazon, threatening both the Amazon rainforest and indigenous and other traditional communities who have been its custodians for centuries.

The automotive sector in Europe, a key player in the production of electric vehicles, sources large amounts of aluminium components from Hydro, a significant proportion of which are made of primary aluminium, which is very likely to be made using significant amounts of alumina produced by Alunorte. The manufacturers involved have a responsibility to investigate and report on their supply chains and demonstrate that they are fully complying with the responsibility to conduct human rights and environmental due diligence, including in relation to Alunorte and MRN.²⁷³ This includes the responsibility 'to take appropriate action' to prevent and mitigate adverse human rights impacts directly linked to their operations, products or services through their business relationships, ²⁷⁴ and to 'provide for or cooperate in [the] remediation [of adverse impacts] through legitimate processes'.²⁷⁵

Hydro has disclosed that it supplies significant amounts of aluminium components to Mercedes-Benz and Jaguar Land Rover. While Mercedes-Benz has reported that it has taken some measures to seek the sustainability of its aluminium value chain, based on the information discussed in this section, we conclude that Mercedes-Benz is not fully complying with the responsibility to conduct human rights due diligence in relation to Alunorte and MRN. An analysis of Jaguar Land Rover's annual reports from 2018 to 2022 revealed that this company has not reported any action to address the detrimental human rights and environmental impacts contributed by Alunorte's or MRN's operations in the Brazilian Amazon.

Hydro and several car manufacturers that source from Hydro, including Mercedes-Benz, widely advertise their progress in producing and using components made of primary aluminium that has a CO₂ footprint around 70% lower than the average of the aluminium industry in Europe.²⁷⁷ While these innovations to reduce greenhouse gas emissions are laudable, they do not negate the need for action on human rights and important environmental issues that are not directly related to greenhouse gas emissions.

Our research also demonstrates a lack of transparency on the supply chains of energy and related sectors involved in the energy transition, particularly mineral and metal supply chains. This prevents civil society organisations and citizens from having access to information about whether renewable energy technologies are made from inputs produced in a way that respects human rights and protects the environment.

Box 7: Would the proposed EU Directive on corporate sustainability due diligence apply to Hydro, Mercedes-**Benz Group and Jaguar Land Rover?**

Out of Norsk Hydro, Mercedes-Benz and Jaguar Land Rover, only Mercedes-Benz discloses sufficient information in its recent annual reports to determine whether it would meet the applicability criteria for the proposed EU Directive on corporate sustainability due diligence. This demonstrates the importance of requiring companies that operate in the EU market to disclose sufficient information regarding this criteria, particularly companies that are formed in accordance with the legislation of a country outside the EU but conduct significant business operations in the EU market.

The proposed EU Directive would apply to Mercedes-Benz Group, a company formed in accordance with the legislation of Germany. This company would meet the two criteria set for companies formed in accordance with the legislation of a member of the EU: it had 171,382 employees on average in 2022 and had a total revenue worldwide of €150,017 million in 2022. While the company did not disclose its net turnover in its recent annual reports, which is the category used in the proposed EU Directive, given the magnitude of Mercedes-Benz's total revenue worldwide it is reasonable to assume that its net turnover exceeded €150 million in 2022, which is the threshold regarding worldwide net turnover for this type of company to fall under the proposed EU Directive.

Sources:

EU Commission, Proposal for a Directive on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937, 23 February 2022

EU Council, General Approach on the Proposal for a Directive on Corporate Sustainability Due Diligence, 30 November 2022

Hydro's annual reports from 2020, 2021 and 2022.

Jaguar Land Rover's annual reports from 2021 and 2022.

Mercedes-Benz Group's annual report 2022, p242.

4. Large-scale renewable energy projects

A just energy and equitable transition will need to meet Paris decarbonisation goals as well as rising energy needs, while reducing energy consumption in the global North.²⁷⁸ The intergovernmental International Renewable Energy Agency (IRENA) has estimated that the world may need to add as much as 1.5 terawatts of renewable energy capacity per year to replace fossil fuels and keep global average warming within 1.5°C.279 Powerful transnational corporations including fossil fuel companies and the private financial sector have increased investments in renewable energy and related sectors over the last two decades, a trend that has accelerated in the context of the current global energy crisis.280 Their ability to access sophisticated financial markets, use complex technologies and project manage at scale has increased the deployment of largescale wind and solar energy projects. While these make significant contributions to renewable energy supplies, they also carry distinct risks for human rights and the environment, amounting in some cases to a form of neocolonialism, particularly where these supplies are exported from the country or region where they are produced without bringing benefits to affected communities. Since there is no socially neutral investment, it is important to articulate what safeguards can be put in place to make investment and financial power in supply chains cognisant of responsibilities to people and planet.281 In this section, we consider some of the potential human rights risks of large-scale wind and solar energy projects and how energy governance can be strengthened to prevent, mitigate and remedy these.

The land-energy nexus

Access to land directly affects the enjoyment of economic and social rights for many. With the impacts of climate change increasingly felt, sustainable and equitable use of land, for which there may be competing claims and alternative uses (including set-aside for protection of biodiversity), is an increasingly critical factor in resilience of people and ecosystems. Some responses to climate change, such as land-extensive carbon offsetting schemes, have increased competition for land and undermined efforts to protect ecosystem integrity, so are not necessarily a viable pathway to climate change mitigation.²⁸² However, generating renewable energy at scale is necessary and urgent, and in general, the cheapest and most widely viable technologies with which to do

Since there is no socially neutral investment, it is important to articulate what safeguards can be put in place to make investment and financial power in supply chains cognisant of responsibilities to people and planet.

this are currently solar and wind power.²⁸³ As these require more land per unit of power produced than coal- or natural gas-fired power plants,284 this transition needs to be achieved in a way that is coherent with other human rights and biodiversity imperatives. Maximising the use of previously used 'brownfield' sites where these are suitable can help to reduce environmental impacts but this may still have opportunity costs in terms of alternative uses such as housing or other infrastructure. Large installations require space, availability of which might be far from the point of use, meaning that significant additional land is also needed for transmission infrastructure. Also, wind power generation especially needs to be located where the conditions are right rather than where is most convenient for people and infrastructure.285 It is likely therefore that generating sufficient renewable energy will increasingly depend on development of previously undeveloped (or relatively undeveloped) areas (or land that is erroneously perceived by outsiders to be valueless or unused), with potential human rights and environmental impacts that must be anticipated and avoided.

The social and political contexts in which large renewable energy development projects are deployed is important. As illustrated by our Brazil case study and in our Kenya case study below, the risks to human rights are likely to be greater when the people most affected are marginalised in planning and decision making. Where affected communities also depend heavily on land and natural resources and experience high levels of vulnerability and food insecurity, the risks are multiplied. Failure to recognise and respect land and water use patterns of small-scale farmers and pastoralists can have immediate and devastating impacts on livelihoods, regardless of the wider long-term benefits renewable energy projects may bring. This is particularly the case where climate change or other factors are also affecting the productivity of land and availability of resources such as water or animal fodder. As shown by the experience of the Rewa Ultra Mega Solar Project in Madhya Pradesh state in India, recently documented by Friends of the Earth, even land considered to be 'barren' and 'unused' can be central to food production and access to water among marginalised farmers and pastoralists.²⁸⁶ Failure to respect land rights (and particularly the collective customary/ancestral rights of indigenous peoples) can also amount to a negation of a cultural identity²⁸⁷. Finally, there is also a danger that renewable energy projects designed to meet the needs of industry and urban centres (and in some cases, for export) not only displace the livelihoods of marginalised people but also fail to include them in the benefits (such as affordable

Failure to recognise and respect land and water use patterns of small-scale farmers and pastoralists can have immediate and devastating impacts on livelihoods, regardless of the wider long-term benefits renewable energy projects may bring.

energy access, decent green jobs or a fair share of profits or revenues directed to supporting their sustainable economic development). According to research by the Business and Human Rights Resource Centre, 'most of [the largest wind and solar energy producer companies in the world] lack the essential human rights policies to avoid abuse of communities and workers'. And 'none of the companies analysed are currently fully meeting their responsibility to respect human rights, as defined by the UN Guiding Principles'. The report highlighted respect for land rights and for the rights of indigenous peoples as being particularly problematic.

To date, land use for solar and wind energy is negligible compared to other human land uses, but the effects of the transition to renewable energy on people, habitats and ecosystems are likely to be increasingly felt and any adverse impacts will need to be mitigated. Technological advances, such as development of 'hybrid' installations (such as wind and solar combined) may help alleviate pressures for land, but most importantly land use planning and decision making regarding energy systems development must be inclusive of all stakeholders, must reduce (not entrench) inequalities, and must be sensitive to the potential for conflicts over land and resources that may be caused or exacerbated.

As our case study from Kenya illustrates, there are inevitably challenges, trade-offs and difficult choices to be made, but it is important that the rights of people most at risk are prioritised.

4.1 Case study: the Lake Turkana Wind Project in Kenya

Kenya has made great strides in the generation of renewable energy, actively exploiting its wind, solar and geothermal potential, but in some cases this has led to conflicts over land. Here we examine the case of the Lake Turkana Wind Power Project (LTWPP), a public–private partnership (PPP) between the Kenyan government and Lake Turkana Wind Power Ltd (LTWP Ltd), that has resulted in a protracted land dispute. While LTWP Ltd and one of its co-defendants in a 2021 court case on the matter argued that the arrangement was compliant with laws applicable at the time, the ruling of the Meru High Court found that the process whereby land had been set aside for the project was 'not only highly irregular, but also plainly illegal'. ²⁹⁰

Regardless of the legal interpretation, it is undeniable that the LTWPP clearly has had effects, both positive and negative, that have implications for the rights of local populations, the majority of whom depend on pastoralism/livestock rearing as a means of livelihood, either wholly or in part. The communities

Land use planning and decision making regarding energy systems development must be inclusive of all stakeholders, must reduce (not entrench) inequalities, and must be sensitive to the potential for conflicts over land and resources that may be caused or exacerbated.

most affected include the Rendille, Samburu, Turkana and El Molo, who have traditionally negotiated land use among themselves. With the exception of the El Molo, they depend heavily on access to extensive areas of common land for rearing livestock, to make the most of sparse availability of water and grazing. In this case study, we aim to distil some of the human rights implications and regulatory lessons from this complex case.

In its response to an earlier draft of this case study received on 3 August 2023, LTWP Ltd emphasised the benefits of the LTWPP. In this case study, we have included relevant information to address LTWP Ltd's concerns. In 2009 when the contested land was leased to LTWP Ltd, just 14% of Kenya's population enjoyed access to electricity, a situation aggravated by an over-reliance on hydropower, which had proven to be unreliable especially in dry seasons. Since then, various other renewable energy sources have been developed to satisfy Kenya's energy needs and meet its Paris Agreement commitments. Currently about 71% of Kenyans have access to electricity, and about 77% of the country's total energy supply comes from renewable energy sources.²⁹¹ The LTWPP has made a significant contribution to Kenya's energy security,292 including by reducing reliance on fuel imports from neighbouring countries. LTWP Ltd claims this has saved more than €281 million between 2018 and 2021, enabling continued economic growth of the country.293 The project has also generated considerable carbon credits. In 2016 LTWP Ltd announced it had committed to transfer up to US\$0.01 per kWh to Kenya's Ministry of Energy, via the national Kenya Power and Lighting Company (KPLC), from the sale of these credits, to be 'applied to benefit the communities living near the wind farm and along the power transmission line'.294 More recently, it was reported that LTWP Ltd 'are looking to channel the first large chunk of revenue from the sale to the communities impacted by the project'. This, it is suggested, could be as much as KES880 million (approximately £4.8 million).295

The LTWPP is one of many renewable energy projects in Kenya that have been implemented, each with varying community reactions and benefits, depending on land ownership, context and processes used.296

Financing and deployment of the LTWPP

Kenya attracted investment in its renewable energy development through a series of liberalisation reforms, including a feed-in tariff established in 2008 that enabled companies to generate electricity and sell it to the national grid through negotiated Power Purchase Agreements (PPAs). From

2010, PPPs were encouraged. In 2012 these arrangements were backed by the World Bank, which pledged to provide guarantees to commercial banks that issue stand-by letters of credit to Independent Power Producers, to act as security for PPAs.²⁹⁷ All this created a favourable environment for investors to negotiate PPAs with KPLC.

The Dutch/Kenyan investment company KP&P Africa B.V. established LTWP Ltd in 2006. The company was granted exclusive rights to survey the proposed wind farm site and signed a Memorandum of Understanding with KPLC in April 2008. LTWP Ltd is owned by a consortium of shareholders, and a number of bilateral and multilateral donors and equity investors have provided financing, with European investors and development financing institutions playing a prominent role in backing the LTWPP.²⁹⁸

Construction began in 2016 and the project became operational in 2018. The LTWPP's 365 wind turbines now provide approximately 17% of Kenya's installed energy, which is purchased at a fixed price by KPLC in accordance with a 20-year PPA.²⁹⁹

Land laws contravened?

The LTWPP lies approximately 12 kilometres east of Lake Turkana in the Laisamis Constituency of the Loiyangalani District in Marsabit County and is located to take advantage of geographical features that combine to create strong and predictable wind speeds. The site lies at a convergence of lands used by El Molo, Rendille, Samburu, Turkana and other pastoralist communities. The Rendille, Samburu and Turkana are primarily pastoralists with long histories of migrations across the project area. The vulnerability, customary land use and status as indigenous peoples of all four communities is recognised by the African Commission on Human and Peoples' Rights.³⁰⁰ The Rendille ascribe particular cultural significance to the land as the traditional site for the Galgulame ceremony that celebrates the transition of young people into adulthood; and a Samburu clan traces its origins to a water pool in Sarima, a village that was forcibly relocated by the project.

The land where the LTWPP is located had previously been held in trust by Marsarbit County Council, under the now repealed Trust Land Act, legislation based on colonial laws that gave secondary importance to African customary law and communal land use.³⁰¹ The Act gave local authorities jurisdiction over land that they held in trust as 'public land'.³⁰² The Act did however offer some protections. Under the Act, any applications to 'set apart' all or part of the land for any specific use should have

Box 8: Indigenous peoples' rights in Kenya

In Africa, definitions of indigeneity have moved away from 'first people' and towards recognition of marginalised groups, as reflected in Kenya's Constitution and in the increasing recognition in Kenyan law of the need to protect 'minorities' and 'marginalised' people.

The African Commission on Human and Peoples' Rights highlights the distinct knowledge systems and ways of life of indigenous peoples, the problems of land grabbing, lack of representation and lack of access to justice they face, and specifically in Kenya, the lack of Constitutional recognition of indigenous peoples and thus of international law pertaining to them.

The Kenya National Commission on Human Rights has advocated for the endorsement of the United Nations Declaration on the Rights of Indigenous People and ratification of the ILO Convention 169 on Tribal and Indigenous People.

Sources:

The changing value of land in Northern Kenya: the case of Lake Turkana Wind Power

Report of the African Commission's Working Group on Indigenous Populations/Communities Research and Information Visit to Kenya

The Kenya National Commission on Human Rights Submissions to the United Nations Permanent Forum on Indigenous Issues been heard by a representative Divisional Board, established to hear 'representations of all persons concerned' and make recommendations to the Council based on these representations.³⁰³ The Act also provided for compensation to be 'promptly paid by the government to any resident of an area of land 'set apart,' to people who under African customary law have the right to occupy any part of the land or who, in common with all other residents of the land, are in some other way prejudicially affected' by the setting apart.304

In 2009 the Council allowed LTWP Ltd to lease an area of 607km², or 150,000 acres, of the trust land. It was not until 2014 that this decision was challenged in the courts. Six plaintiffs, some of whom were associated with the Sarima Indigenous People's Land Forum, a platform established to defend the rights of the Sarima people, sued on behalf of all the residents of Laisamis Constituency claiming ancestral land rights of the Rendille, El Muru, Samburu and Turkana peoples as 'central to their survival and livelihood'. They requested cancellation of the land title granted to LTWP Ltd, nullification of the LTWPP, legal costs, and 'any further relief that this honourable court may deem fit to grant'. According to research by DANWATCH, lawyers representing the plaintiffs stated that no Divisional Board had been established as part of the leasing process. At the time, one of these lawyers stated that: The only meetings held was attended by town dwellers and fishermen from one area (Loyiangalani), and did not involve the pastoralist community and the project therefore lacks public participation in its establishment. This meeting neither declared the size of land required for the project, nor did it inform the community of the loss of access to their land, but instead concentrated on the benefits to the community.'305

Evidence presented in the 2021 high court hearing³⁰⁶ also suggests that the procedure stipulated in the Trust Land Act had not been followed. Although the court did not see fit to nullify the LTWPP, it did rule that the setting aside of the land was 'irregular, unlawful and unconstitutional' and gave the other defendants in the case (Marsarbit County Government, the Attorney General, The Chief Land Registrar and the National Land Commission) one year to 'comply with existing law', failing which the suit land 'shall revert to the community'. The ruling held subnational and national government bodies primarily accountable for this failing, but also highlighted that the investing company, namely LTWP, 'should not be allowed to escape without some level of blame 'highlighting that it 'should have undertaken careful and foolproof due diligence'.307

Constitutional provisions

A public audit of the matter conducted in 2022 also suggested that the 2009 land lease had been 'unconstitutional'. 308 The Constitution that was in place at the time has now been replaced, but Kenya's 2010 Constitution³⁰⁹ retains provisions for the protections of customary and communal lands. Article 63³¹⁰ states that: 'Community land shall vest in and be held by communities identified on the basis of ethnicity, culture or similar community of interest', that this includes 'ancestral lands' and that 'Community land shall not be disposed of or otherwise used except in terms of legislation specifying the nature and extent of the rights of members of each community individually and collectively.'

While 40,000 acres of the contested land has so far been used for the project, concerns have been raised that LTWP Ltd could sublease the remaining 110,000 acres to other investors. The Loiyangalani to Suswa Power Transmission Line (LS-PTL) that connects the LTWPP to the national grid and is managed by the Kenya Electricity Transmission Company (KETRACO) can carry 1,200MW of electricity, a lot more than the 310MW provided by the LTWPP. This suggests that it was intended to be able to accommodate further renewable energy projects and could therefore be central to the gradual development of the wider region.311 The land has been leased for a period of 33 years, an arrangement that can be renewed twice, allowing a total of 99 years. However, the PPA expires in 2039, at which point LTWP Ltd has stated that it will consider the options to 'upgrade the wind farm (under a new agreement with the National Government, County Government and KPLC) or demobilise the wind farm (ie wind farm is fully removed)'.312

Human rights implications

Renewable energy investments should bring benefits to local communities. This was always the stated intention of LTWP Ltd, although arguably the economic benefits of the LTWPP have accrued mainly at national level (for example, through enhanced energy security and tax revenues). Nevertheless, the project has improved roads and other infrastructure in Laisamis, contributing to economic development mainly by improving access to markets. LTWP Ltd highlights its contributions to local community development, implemented mainly through its corporate social responsibility efforts, which have included establishment of the Winds of Change Foundation (WoC - see Box 9). A report contracted by the Finnish Fund for Industrial Cooperation Limited (Finnfund) published in 2020 documents a range of benefits to local economies and employees which have occurred 'mainly

Box 9: Winds of Change

LTWP Ltd's website affirms its intention to ensure the LTWPP brings benefits to local communities.

To this end it has established Winds of Change (WoC), now a registered NGO, to implement sustainable community development projects throughout the project area. WoC has channelled approximately €2.5 million to these since 2015.

These funds have supported community-level interventions including support for education; improving access to health services; boreholes to improve access to drinking water; and the provision of solar energy for community facilities.

In 2022 and into early 2023, in response to severe ongoing drought and resulting livestock deaths, an award-winning emergency food relief programme was also implemented in two phases, providing daily school meals to over 30,000 primary school children.

LTWP Ltd also continues to support regular opportunities for community engagement including through open days and support for traditional ceremonies. In 2023, it will support the Galgulame ceremony.

Sources: Winds of Change - Lake Turkana Wind Power

through direct employment and through the projects implemented by the WoC'.313

In view of the overwhelming poverty and deprivation still experienced by the majority of people in the project area however, questions remain as to whether more could have been done to ensure the benefits of the project were equitably shared, either by channelling more tax revenues to the provision of public services and social protection, which remain wholly inadequate, or through some other arrangement to ensure communities have a direct stake in the project.

Marsarbit County reports a multidimensional poverty rate of over 85%, with 87% of children experiencing nutrition poverty.314 Loiyangalani is one of the poorest divisions. Local communities in the project area have been very dependent on relief food distribution, and drinking water in the area remains very scarce.315 Pastoralism remains the main form of livelihood for most people. . Uptake of formal education in Laisamis Constituency is very low. Government data cited in a socioeconomic impact study conducted on completion of the project in 2018 indicated that 81% of the population (then approximately 65,000 people) had 'no educational attainment'.316 Thus, most people have limited skills to enable them to take up alternative sources of employment or, indeed, opportunities to do so. Therefore, rights to land and other common resources remain very important.

LTWP Ltd is the largest employer in Laisamis, and the Finnfund report found signs that it has also helped to increase awareness of the value of education and the opportunities it can bring, since most of the 339 people LTWP Ltd employed directly at the time of writing (most of whom are from local communities) reported investing in their children's education.317 However, employment opportunities remain scarce in the area. Greater numbers of local people were employed during the construction of the LTWPP, but most of these jobs were on a temporary basis.

Free, prior and informed consent?

An important human rights consideration is whether pastoralist communities were adequately informed and consulted regarding the project and its implications, in line with internationally recognised rights of indigenous peoples to give (or deny) free, prior and informed consent (FPIC) to any projects on their land that might affect them (See Box 4). This right is provided for in the UN Declaration on the Rights of Indigenous Peoples and ILO Convention 169, and is linked to the right to self-determination.

Box 10: Enabling policies and devolved governance: Kenya

Under Kenya's Energy Act of 2019 the government must facilitate the provision of affordable energy services to all through a fair, transparent and equitable strategy, involving integrated energy planning. Several instruments and frameworks have been put in place to ensure this, including the Kenya off-grid Solar Access Programme (KOSAP). This programme aims to provide access to modern energy to 16 counties that are marginalised and underserved, through stand-alone solar home systems, mini-grids, and technologies for clean cooking. In addition, the Rural Electrification and Renewable Energy Corporation (REREC) was established to set up county-level energy centres, coordinate research in renewable energy, and develop appropriate local capacity for renewable technologies.

A recent report by the ACCESS Coalition found that these provisions combined with Kenya's two-tier (national and county level) system of governance now provide a good range of opportunities for Kenyan civil society to engage in decision making towards meeting the country's SDG 7 targets, and to maximise the human rights benefits, for example, by promoting genderresponsive energy services.

Source: ACCESS Coalition Energy Act **Analysis**

The LTWPP area is not fenced, so pastoralist communities retain access to most of the site, but their right to decide what happens on their land was not invoked or respected. Kenya's Constitution does not explicitly recognise the concept of indigenous peoples and FPIC. It refers instead to rights of 'minorities and marginalised groups' (Article 56) including 'pastoral persons and communities' (whether nomadic or settled) '...that, because of its relative geographic isolation, has experienced only marginal participation in the integrated social and economic life of Kenya as a whole' (Article 260). Thus, although it does recognise the vulnerabilities of pastoralist communities and the need for protections for community lands (Article 63) it does not provide for the enforcement of FPIC rights (see Box 10).

Had FPIC rights been invoked and respected, it is possible that local communities may have gained a better understanding of the implications of the LTWPP, been better placed to insist the correct legal procedures were followed, and/or may have chosen to deny consent or negotiate better compensation or benefit sharing arrangements.

A witness for the plaintiffs in the 2021 court hearing, born of a Rendille family, stated that he 'discovered that the land had been alienated unprocedurally [sic] in favour of the first Defendant [LTWP Ltd] when he joined the County Assembly in 2013' and that this 'led to fact finding meetings through public meetings (barazas) in early 2014 to ascertain whether the communities were aware that 150,000 acres of their land had been privatised. The answer being negative, they filed their suit in 2014'.318

Although FPIC was not respected, there was some prior consultation of local communities during the planning of the LTWPP and subsequently. According to LTWP, initial feasibility studies 'involved the local state administration as well as the community leaders in the area covered by the land lease; Community leaders in the wider Loiyangalani Division (representatives of the Turkana, Samburu, Rendille and El Molo communities); gender and youth-based groups; and nongovernmental organisations'.319 A 2009 Environmental and Social Impact Assessment report that details the initial community consultations conducted as part of the assessment process suggested participants were largely in favour of the project, in expectation that it would bring benefits such as better roads and health facilities (which have been realised to some extent); but it also raised concerns about the need to 'manage' these expectations and said the consulting team's reliance on local interpreters meant that it was not always clear 'They told us they will build better houses. Water will be provided and boreholes drilled. There will be plenty of water for our animals and kinsmen. A school and hospital will be built and an ambulance provided. Before resettlement, they lied to us.'

Ibuya Loupe, A member of Sarima Village (interview conducted by Friends of Lake Turkana in 2018)

Had FPIC rights been invoked and respected, it is possible that local communities may have gained a better understanding of the implications of the LTWPP, been better placed to insist the correct legal procedures were followed, and/or may have chosen to deny consent or negotiate better compensation or benefits sharing arrangements.

whether the consultants' explanation of the project's workings, the impacts generated and the mitigation measures proposed were well understood by communities in the project area.320 This suggests that consultation may have raised unrealistic expectations to gain acceptance by local communities, and thus led to subsequent disappointment. The International Working Group on Indigenous Affairs 321 has expressed concerns about the adequacy and inclusiveness of consultation.

LTWP Ltd and other renewable energy project developers have been accused of exploiting the lack of legal or constitutional clarity regarding the status of indigenous people, and failing to identify indigenous peoples by this title due to the rights this confers.322 LTWP Ltd's 2012 Indigenous People's Policy Framework (IPPF) stated that: 'The project has and will continue to engage in a process of free, prior and informed consultation with all the affected community members throughout the project life cycle so as to inform them about the project, identify their views, and obtain their broad community support to the project'. It recognises that 'most of the ethnic tribes within the project fulfil the general criteria of indigenous people' but argues that the Turkana, Samburu and Rendille 'might at a local level be in a dominant position or at least able to defend their rights, interests and to voice their opinion', and goes on to state that 'Therefore, for the purposes of this IPPF, the concept of Indigenous Peoples has been narrowed down to a special hunter-gatherer community or the El Molo' and that 'there is no indication that the Project will adversely impact the El Molo as they are located approximately 70km to the north of the Project footprint'. Referring to this, one academic study suggests that: 'It is hard to avoid the conclusion the LTWP has used definitional dexterity to create the appearance of adhering to ethical business standards, while avoiding the indigenous issue and the safeguards this recognition would have triggered for local people' 323

LTWP Ltd's Stakeholder Engagement Plan (2014) reiterates that 'LTWP's view is that the principle of Free Prior Informed Consent (FPIC) is not currently considered to be applicable to this Plan'. 324 The Plan elaborates an impressive range of tools and methods for engaging stakeholders, including the recruitment of liaison officers from among local communities. In the writing of this report, we requested further information from LTWP to clarify the extent to which these have been put into effect but had not received a response by date of publication.

LTWP Ltd and other renewable energy project developers have been accused of exploiting the lack of legal or constitutional clarity regarding the status of indigenous people, and failing to identify indigenous peoples by this title due to the rights this confers.

Compensation largely lacking

The vast majority of people who use the land affected by the leasing arrangement received no compensation. ³²⁵ In contrast, relocated households along the 438km path of the LS-PTL (most of whom had individualised land tenure rights) reportedly were duly compensated in line with Kenya's Land Act 2012. ³²⁶ A Resettlement Action Plan published by the African Development Bank in 2015 ³²⁷ states that: '...the PAPs [Project Affected Persons]/nomadic pastoralists have customary rights of use to land pastures. However, communities have no recognizable legal right or claim to the land other than use and are therefore not eligible for land compensation.' Again therefore, the rights of customary and communal land users were given less recognition, despite international law.

The exceptions to this were the Sarima villagers who were relocated on health and safety grounds for construction of a new road serving the project areas. Reportedly, the 114 households received only replacement manyattas (traditional homesteads) and a small resettlement allowance which averaged (although reports vary) KES8,628 each, approximately £62.328 The new village also benefited from interventions to supply clean water and sanitation. However, Friends of Lake Turkana Trust (FoLT), a land and environmental rights organisation that works with indigenous communities in the area, have reported that this has been inadequate.³²⁹ One of the challenges has been that the village grew significantly during the construction phase, with Kenyans from other places migrating to the region in search of jobs, resulting in overcrowding in the designated relocation area, and other social and health impacts.330 Some of these impacts were anticipated by the World Bank 2009 Environmental Impact Assessment and thus potentially could have been avoided or greater mitigation efforts could have been implemented.

The LTWPP is not unique. Research conducted by the Ogiek Peoples' Development Programme (OPDP) found that among seven other renewable energy projects in Kenya, only four had fulfilled their compensation promises to communities. In the case of the LTWPP it found that communities felt cheated after being displaced without due compensation.³³¹

Climate resilience

A 2011 assessment of the LTWPP carried out by the African Development Bank found that 'the socio-economic benefits of LTWP's Project...outweigh the limited and site-specific social and environmental costs when enhancements/mitigation

measures are effectively and timely undertaken'.332 More than a decade on, and with increasing climate vulnerability, it is important that any such impacts be closely monitored, as for some they may be a matter of survival.

Drought and extreme temperatures, exacerbated by climate change, are decimating the livelihoods of northern Kenya's pastoralist communities.333 Christian Aid's partner PACIDA, which works with pastoralist communities in Marsabit, has highlighted their continuing extreme vulnerability and limited opportunities to diversify their livelihoods.334 Therefore the quality, availability and accessibility of common resources including various plant species foraged by livestock remain of critical importance.

According to FoLT, the LTWPP area is a refuge for pasture during the dry season and home to much valued nutritious plant species, some of which were destroyed during the construction of the wind farm. Regeneration of this and other vegetation according to FoLT, has been very limited.335 The impact of this, they feel, was downplayed because pastoralists still have access to the site.336 In reality, FoLT argues, the destruction of vegetation combined with noise produced by the turbines and their sheer scale and intrusive nature, means that livestock, and more specifically camels (which are best suited to graze in the area and most resilient to drought), are not able to come anywhere near the wind turbines, affecting overall movements.

This raises two issues: firstly, the need for ongoing monitoring and measures to address impacts of extensive renewable energy projects on ecosystems and livelihood resilience; and secondly, the need for public services, social protection and other support for the livelihoods of at-risk communities to be provided as human rights, not solely as charitable interventions such as those provided by WoC, however welcome these may be.

Energy for whom?

There is also the question of who benefits from energy generated. The provision of electricity connections for some local households, public services and businesses was briefly mentioned in the Environmental and Social Impact Report commissioned by LTWP Ltd in 2009, although it was acknowledged that the sale of power at commercial rates would make electricity connections unaffordable for many members of the community.337 However, ensuring affordable energy for pastoralist communities does not appear to have been at the centre of project planning and development,

despite the critical shortage of fuelwood in the area, and the risk that this could be exacerbated by the arrival of construction workers at the site.³³⁸ FoLT Ltd has commented that the focus has been on transmission of power to the main grid, too far away for local communities to be affordably connected. Instead, some pastoralist households use individual solar panels, which are particularly useful for people on the move, but the necessary equipment is often prohibitively expensive, and as pastoralist communities become more sedentary, connections for people not engaging in migration are also needed.

More recently, LTWP Ltd has publicly stated that it 'would like neighbouring communities to be able to access electricity and is committed to working with the national government and the county government to explore possible avenues to realise this in the future', and has pointed out that providing electricity connections is the responsibility of government.³³⁹ To address the challenge of long-distance transmission there are now plans to roll out the government's Kenya Off Grid Solar Project (see Box 10) to fill the gap in electricity access in the area.

The company has highlighted its support, through WoC, for solar power for community facilities such as schools and health facilities. Nevertheless, the fact most pastoralist households still rely on firewood, charcoal and kerosene for domestic use while the electricity generated by the LTWPP is transmitted out of the area is widely perceived to be unjust. Again, this points to the deficits in public service provision in the project area and the challenges of renewable energy projects planned without the participation of local communities or prioritisation of their needs. It also highlights the benefits of decentralised renewable energy approaches discussed in greater depth in Chapter 5.

Costs to the public purse

LTWP Ltd's 2022 Sustainability Report celebrates the growing contributions the LTWPP is making to Kenya's energy security and tax revenues. 340 Yet, the true total costs of the agreement between LTWP Ltd and the Kenyan government to Kenyan taxpayers will likely remain unknown. One of the key features of PPPs like this arrangement is that they are classified as nongovernment assets, meaning their costs are recorded off balance sheet for governments, which, according to the International Monetary Fund, undermines sound fiscal management and heightens the risk of debt distress – which Kenya now finds itself in. 341

Despite that lack of transparency, there have been specific concerns that the LTWPP came at a heavy cost to public funds.

A 2022 inquiry sought to establish the circumstances under which the project 'ended up incurring an additional, avoidable financial burden to the government and Kenyan taxpayers'. The inquiry committee observed that the PPP had lacked competitiveness and was poorly managed.³⁴² One of the issues raised was the penalty charged to the government following delays in the construction of the LS-PTL due to the bankruptcy of a Spanish contractor in 2014. LTWP Ltd charged the Government of Kenya KES14.5 billion (€127 million at that time) in penalties, something provided for as part of the PPA agreement to protect LTWP Ltd 'by providing a guaranteed income even if the purchaser (KPLC) does not use electricity'. In a deal struck in 2017, Kenya committed to pay KES5.7 billion (€46 million at the time) of the total penalty in a lump sum, while the balance of KES9.25 billion (€81 million under prevailing rates) was to be paid over six years through a tariff increase to the electricity consumers. The increase in tariff, by €0.00845kw/h, arising from poor execution of the contract, is being borne by the power consumers through increased power charges.343

The committee recommendations highlighted a need for better risk assessment of PPPs to establish potential challenges including exposure of taxpayers and other partners to value for money and litigation risks; and the need for the Government of Kenya to build its technical and financial capacity in implementing projects through PPPs. Kenya is not unique in this respect. The need for closer scrutiny of energy infrastructure PPPs and the financing arrangements contained in them, to ensure these do not become a drain on public resources, has also been highlighted by African and global international civil society organisations. In 2017, this and other work resulted in the Public-Private Partnerships Global Campaign Manifesto of 2017, aimed at reversing the trend towards the over-promotion of PPPs as 'silver bullets' in development finance discourse.344

Rights recognised but not yet realised

The Trust Land Act was repealed in 2016, part of a process of reform of Kenya's land laws following Independence from British colonial rule. The 2016 Community Land Act (CLA) which replaced it puts into effect the new (2010) Constitution of Kenya by providing for the recognition, protection and registration of community land rights.345

The process of reclaiming community rights to the land on which the LTWPP is located continues. The plaintiffs argue that the LTWPP went ahead without proper consultation and compensation and that the land lease does not follow the

former Trust Land Act that was in effect at the time, nor (as the case progressed) the CLA. The second, third, fourth and fifth defendants in the case (Marsarbit County Government, the Attorney General, The Chief Land Registrar and the National Land Commission) were directed to correct the whole process within 12 months, a period that lapsed in October 2022 (although an extension was granted to January 2023).

LTWP Ltd requested the court to further extend the timeline to regularise the process of land acquisition and conduct the necessary public consultations, primarily on the grounds that under current land laws in Kenya, specifically the CLA, both the national and county governments now play limited roles in the regularisation of the title and registration of community land. LTWP also argued that the judgment and orders were not specific or clear and were not sufficiently directed to the relevant entities or communities with the power to act. LTWP Ltd also highlighted the huge financial losses it could face as well as loss of power to the national grid should the land be transferred to the public. However, on 25 May 2023, the Environmental and Lands Court in Meru found that the defendant 'had failed to demonstrate a case for the enlargement of time'. In relation to the regularisation of the land title it also found that: 'No action has been taken to initiate the process by any of the defendants and no good reason has been given for such inaction.'346

FoLT has commented that the Court decision affirms the importance of FPIC from and by affected communities, gives credence to customary laws and practices as part of Kenya's legal system, and restores confidence in customary land rights and tenure as provided for by Article 63 of the Constitution of Kenya. Finally, FoLT feel it gives communities in Laisamis/Loyangalani a stronger voice in any dialogues or negotiations in the future, even as the company appeals the decision in the Court of Appeal.

4.3 Regulatory lessons

The LTWPP case highlights the need for effective and participatory governance of the energy transition and particularly the need for legal clarity in relation to customary/communal land rights, in compliance with international human rights norms. For businesses, it highlights that compliance with national laws is not enough where these laws fall short. There is a need for due diligence, which, as explained by the Special Rapporteur on the rights of indigenous peoples, James Anaya in 2013, '... also entails ensuring that the company is not contributing to or benefiting from any failure on the part of the State to meet its international obligations towards indigenous peoples'.347

In relation to PPPs specifically, the case highlights the need to ensure financing arrangements enhance and do not become a drain on public resources for progressing rights. It has been shown that PPPs often fail to adequately support pro-poor responses, accountability and stakeholder participation,348 and may exacerbate existing issues of inadequate regulation, transfer hidden costs and risks to consumers, and aggravate fiscal constraints.³⁴⁹ Governments should not assume that economic benefits of renewable energy investment will necessarily trickle down to people living in poverty.

More broadly at the national level, the case highlights the need for just and inclusive strategies for achieving the energy transition, providing for the rights of marginalised communities, including their rights to energy, livelihood and social protection, and anticipating their future needs.

FoLT has argued for a better balance between the development of large-scale renewable energy projects and the need for economic benefits for impacted local communities. It has called for due process on the acquisition of land to be followed in accordance with existing laws, policies and procedures, with a focus on the rights of marginalised communities, and for better mechanisms to strengthen and enforce this, including sanctions for irregularities. It also calls for observance of all human rights before projects are approved, guided by comprehensive preinception research/analysis that favours all parties, and for governments' and companies' resettlement policy frameworks to be revised and strengthened to cater for all resettlement impacts and provide for adequate compensation.

The huge inequalities in power and access to resources between investors and affected communities mean that better governance is required to ensure that rights are respected and progressed in the energy transition. While providing substantive incentives and financing to companies involved in energy generation and delivery, many states and international financial institutions have not yet satisfactorily integrated human rights considerations in their policies and normative frameworks. Where governments and financial institutions fail to provide adequate safeguards, companies have an independent responsibility for due diligence to prevent rights violations, in line with international standards. The LTWPP case illustrates some of the pitfalls that can occur in the absence of these. Some regulatory lessons to be drawn from it include:

- National policies should be coherent with indigenous peoples' rights, including FPIC, and should enforce a sufficiently meaningful level of consultation and engagement with affected communities.
- Environmental and social impact assessments should continue throughout project lifespans, address the shortand long-term impacts on common property resources, and make recommendations to mitigate these based on an understanding of customary land and resource use.
- Land concessions for renewable energy projects should be conditional on adequate compensation to customary land users as well as individual landowners for loss of access to common property resources or involuntary resettlement.
- Financing arrangements should be transparent and accountable, with local communities and human rights organisations represented in decision making, and they should incorporate adequate support to marginalised and at-risk communities to enable them to understand the implications and claim their rights including a fair share of benefits.
- Development finance institutions should put in place all the necessary measures to ensure that projects they fund are coherent with international human rights standards and obligations, such as FPIC (See Box 11), and rights to health, water and a healthy environment (see Box 4), and that the costs of the renewable energy transition are not borne by the poorest people and countries.
- Governments should legislate to ensure that investors (within their national borders and beyond) implement human rights due diligence and use their power to ensure regulated consultation and relevant compensation processes are followed.

Ultimately, investors could be liable for redressing rights that are found to have been disregarded, but even when legal judgements conclude due process was not followed, getting adequate financial compensation is hard. Improved regulatory frameworks are needed based on greater understanding of the distributional effects (both within and among countries) of different approaches to the energy transition if the transition to renewable energy is not to result in a new form of 'green colonialism'. ³⁵⁰ As FoLT has pointed out, the responsibilities of investors (both public and governmental) for a just and equitable transition extends beyond the successful generation of renewable energy.

Box 11: FPIC and businesses

The FPIC process should enable indigenous peoples (IPs) rights to self-determination as set out in the International Covenant on Civil and Political Rights and International Covenant on Economic, Social and Cultural Rights. If consent to a project on IP lands is given, IPs retain the right to influence any aspects affecting them, and to withdraw consent at any stage.

'Free' means consent given voluntarily without coercion or manipulation in a self-directed process. 'Prior' means consent is sought well in advance of project authorisation. 'Informed' means sufficient accurate and accessible information provided before and during any project. 'Consent' is a collective decision, so the process must enable consideration of competing priorities. This includes ensuring that women are included.

The objective of the FPIC process is not always to negotiate consent or legitimise commercial activities. Where governments fail to implement FPIC processes businesses have a responsibility and mandate to do so. They should treat IPs as the decision makers not just 'stakeholders', so if IPs deny consent businesses should refrain from acting in breach of IP rights even if governments give the go-ahead.

Sources:

What is Free, Prior and Informed Consent, IHRB

How to implement free, prior and informed consent, IIED





PART II: FULLFILLING HUMAN RIGHTS IN THE ENERGY **TRANSITION**

5. Amplifying locally led approaches

In this section we highlight how small- and medium-sized decentralised renewable energy systems and businesses can have positive 'multiplier' effects, contributing to renewable energy targets in ways that shift power dynamics in favour of marginalised communities. We begin by drawing some lessons from Christian Aid's experiences, and consider how these, and the wider work of our partners, inform policy and practice for an enabling decentralised renewable energy approach. The examples we draw from are limited, but nevertheless provide lessons that can be applied more widely.

Our focus is on decentralised (or 'distributed') renewable energy (DRE) in which power is generated close to the point of use, because this is often the quickest and most effective way to reach energy-poor communities, a priority for climate resilience, gender equality and the fulfilment of human rights. Decentralising how energy is produced and distributed can simultaneously create transformative change by democratising decision making, supporting downward accountability, and directly enabling people living in poverty to benefit from the green transition, not just as recipients of energy services, but also as producers of energy to improve their livelihoods and power local economies. Shifting the means to generate energy and make decisions about energy systems from big businesses to smaller enterprises and communities can enable more people-centred approaches that allow women and others who are marginalised to play a key role and claim a more equitable share of the benefits renewable energy can bring. It may also help to avoid human rights and environmental risks that larger and more centrally planned approaches may pose.

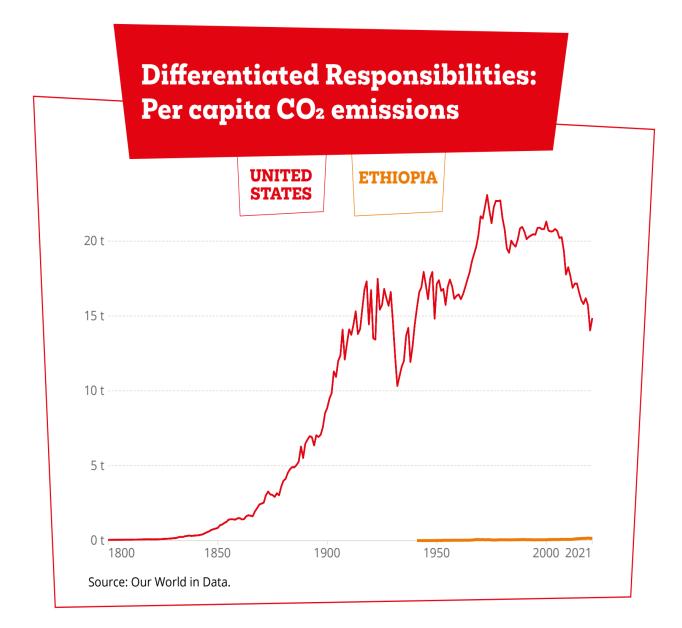
There can also be other advantages. For governments, investment in DRE may be the most effective use of limited public funds to meet SDG 7 targets and reach 'last mile' communities.351 Extending national grids can be expensive and can require subsidies to keep energy prices to end consumers under control.352 Evidence suggests that redirecting subsidies or other resources to subnational level to make DRE available may be a better first option353. DRE can supplement national grids,

Shifting the means to generate energy and make decisions about energy systems from big businesses to smaller enterprises and communities can enable more people-centred approaches that allow women and others who are marginalised to play a key role and claim a more equitable share of the benefits renewable energy can bring. It may also help to avoid human rights and environmental risks larger and more centrally planned approaches may pose.

filling gaps in coverage or supply, especially in rural areas. 354 In Kenya, analysis of grid extension projects found that using decentralised electrification in addition to grid extension would have resulted in a 9.2% higher rate of electrification than grid extension alone at the same cost.355 Finally, DRE solutions championed by local communities can be designed to meet a diversity of neglected energy needs and be adapted to local conditions, offering opportunities to support rural industries and contributing to sustainable natural resource management.356

There are often deeper social impact reasons for prioritising investment and wider support to smaller businesses rather than large corporations.357 With respect to the case study below, we recognise that although they can support gains in certain areas, micro-level initiatives still have to operate within the confines of the globalised economy, where marginalised communities in the global South are often segregated towards the bottom of global supply chains. Thus, while much can be learned from these initiatives, to truly transform the deeper economic structures that maintain inequalities and poverty, work must also be undertaken at the meso- and macro-levels towards building rights-based economies - which often remains particularly overlooked. And while the energy transition does require a complete overhaul of energy use globally and an end to the use of fossil fuels, a just and equitable transition also recognises that not everyone has equally contributed to the climate crisis. The principle of CBDR-RC described in Section 2 applies. A person in Ethiopia emits only about 0.6% of the carbon a US citizen produces on average in a year for instance³⁵⁸, so while citizens of both countries should benefit economically and socially from renewable energy, the greater responsibility to decarbonise - and the greater global impact rests with richer, highly polluting people, companies and countries.

Below: In 2021, Ethiopia's per capita CO₂ emissions were just 1 tonne annually, compared with 14.9 tonnes in the United States.



5.1 Case study: women-led sustainable renewable energy enterprises

In 2018, Christian Aid launched the Breaking the Barriers programme with support from the EU. The aim was to support rural women in Honduras, Ethiopia, Malawi and Burkina Faso to increase jobs and income in the sustainable energy sector, improve working and living conditions, promote gender equality, and strengthen women's social status. The programme worked with established women's groups and cooperatives to establish 201 Women Led Sustainable Energy Enterprises (WLSEEs). Start-up financing was a combination of grants, low-interest loans and in some cases a small contribution from the women themselves. A participatory review of the programme³⁵⁹ found some challenges, including that some women who would have liked to participate could not afford to make the necessary financial commitment, the cost of raw materials and components was sometimes prohibitive, and some technologies on the market were found to be of poor quality. However, there were many positive outcomes, some of which are described in more detail below, including increased incomes for women, improved living conditions, and a shift in power dynamics towards greater gender equality. In all the focus countries, women's decisionmaking power at the household level, and their access to income, increased. In many cases collective action increased confidence. Entrepreneurial models were successful because they provided access to opportunities which had previously been seen as 'male only' spaces. Across all country contexts, it was noted that the business models and alternatives to conventional economic opportunities contributed to transformative leadership for women.

Strengthening climate resilience and reaching 'last mile' communities in Honduras

Most Hondurans have access to grid electricity, 360 but affordability and reliability are major problems³⁶¹ and around one million rural people lack any grid access. The Honduran Law for Incentives for Renewable Energy Generation³⁶² has provided for tax exemptions in the renewable energy sector, but has been criticised for favouring large transnational investments without ensuring adequate community consultation or equitable benefit sharing. This has resulted in conflict, particularly around large-scale hydropower projects, 363 and has exacerbated vulnerabilities, especially of indigenous communities who often lack energy access. Calls for improved regulation have highlighted the human rights implications as well as the need for the sustainable management of forests.³⁶⁴

This is a critical issue because dependence on fuelwood remains high. Pressure on forests exacerbates the risks of landslides and flash floods, and the search for scarce fuelwood contributes to heavy workloads for women. Just 46% of people have access to clean cooking facilities³⁶⁵ and there are few public policies to support appropriate technologies.³⁶⁶

In this context, Christian Aid's partner the Christian Organization for Integral Development of Honduras (OCDIH) supported 120 women, including from indigenous communities, to establish 39 WLSEE's in the departments of Copán, P Santa Bárbara and Lempira.

Below: Marlen Lourdes Salguero Hernández, who leads the women and energy project in Belen, Honduras. Credit: Christian Aid/Rosamelia Nunez



Start-up financing, supported by microfinance institutions, comprised a grant for 70% of costs to buy a sustainable energy technology, a low-interest loan of 25%, and an individual contribution of 5%. Supporting companies were also central in supporting the business skills of participants, which proved central to the success of the project. Training and technical assistance in how to install solar panels and driers was provided by private companies from which technology was sourced. For example, California-based Tesla Energy developed technical training sessions for WLSEEs at concessional rates; and Soluz Honduras provided emergency photovoltaic products at concessional prices as well as support to the WLSEEs through

technical training on issues such as the law surrounding renewable energy installation.

The technologies sold and installed by the WLSEEs included solar panels and fuel-efficient stoves. These helped enhance energy access among energy-poor households and reduce the use of fuelwood and household expenditures (for example for accessing electricity to charge mobile phones).

In the development of women's energy enterprises, it is important to note that the opportunities created for participating women to exchange knowledge among themselves became as important as the technical knowledge imparted by business partners, highlighting the importance of women's collective action. As participants built their understanding of sustainable renewable energy, business practices and the management of credit, they also innovated. One particularly successful example of this was the solar drier, built by the women to dry coffee beans, which have improved the overall quality of the final product. Users now market a more high-value product, which has helped to boost incomes significantly while also minimising use of land and natural resources.367 Participating women reported that this has, in turn, helped to lessen the need for forest clearance at higher, cooler altitudes, where coffee producers seek out land to plant new crops.

Overall participating women saw their median incomes more than double, and many increased their control over household resources and gained respect for their new technical and managerial skills in a sector previously largely the preserve of men.

Supporting rights-claiming and food value chains in Malawi

In Malawi, the Breaking the Barriers programme supported 38 women-led cooperatives to use sustainable renewable energy systems in existing fish and vegetable value chains. These included solar driers, improved cookstoves and solar electrification. For example, the Lusako cooperative, made up of small community groups led by women in the Karonga District of Northern Malawi, built a rice mill processing space using sustainable energy systems, including a wind turbine and solar panels.³⁶⁸ How this cooperative overcame certain challenges also illustrates the importance of collective action to women in the Breaking the Barriers programme. In this case, the cooperative applied to the Electricity Supply Cooperation of Malawi (ESCOM) to be connected to the national grid to supplement energy requirements that were beyond the capability of the renewable energy technologies available to

them. ESCOM was not initially responsive. After some months they were forced to organise a peaceful demonstration. They made their voices heard and got the connection services. The cooperative has now been running since May 2021, with its members reporting that things have changed at home for the better, as they are now recognised as important earners within their families.

At the national level, WLSEEs in Malawi worked with the Malawi Civil Society Network on Climate Change to engage the Malawi Parliamentary Women Caucus, the Parliamentary Committee on the Environment, Ministry of Energy and Mining, and the non-governmental organisation (NGO) Gender Coordination Network to advocate for measures that addressed issues of wider concern. Among other things, they successfully advocated for a review of tax policies, particularly value added tax, relating to solar products they work with, with a view to reducing costs.369 Women from Mangochi, Karonga, and Chikwawa presented their case studies on the affordability of household solar-related products and its impact on poor households, and a collaboration with the Association of Environmental Journalists led to media broadcasts highlighting how consumption taxes can deter people, especially in poorer households, from adopting renewable energy. WLSEEs also collaborated with the National Association of Business Women to launch a Gender and Energy Platform to support grassroots women-led advocacy in sustainable energy issues and mechanisms for women's participation in renewable energy decision making. This led to calls for: more engagement between manufacturers, suppliers and distributors of sustainable energy technologies and women's organisations; inclusion of women in design, implementation and delivery of energy access interventions; and support for women's leadership in energy sector planning.

Reducing unpaid care work burdens in Ethiopia

In southern Ethiopia, 692 women were supported to form 58 WLSEEs producing and selling energy-efficient cook stoves and solar energy products, primarily for lighting. By trialling and then promoting these products among their communities, they have helped to bring about benefits such as the need for less fuel, cleaner and less smoky kitchens, and the reduced risk of accidents from cooking over an open fire.

Before the programme, participating women would spend a significant amount of time fetching firewood, several times a week from more than two kilometres away from their homes, in a context in which deforestation and climate change have depleted resources and also led to poor harvests and increased

food insecurity. The fuel-efficient stove technology has reduced this burden and freed up time for other tasks while the additional income has supported their ability to feed their families during bad harvest seasons.370

Participating women have also gained confidence, to collectively make business decisions and to engage with suppliers, and now enjoy greater recognition within their households and wider communities. This has also helped to spread awareness regarding the benefits of improved cookstoves and solar energy products.

Below: The Breaking the Barriers programme in Malawi encouraged the use of DRE technologies such as solar fridges and freezers, driers and juicers to improve food production, processing and storage. This increased the incomes of small-scale food producers and created new jobs in food value chains. Here, baobab juice is marketed by the Makande Women's Group's Women Led Sustainable Energy Enterprise. Credit: Malumbo Simwaka



5.2 Lessons from the ground

The examples described above were small scale and depended on donor funding but can nevertheless reveal insights that may be applied more widely regarding the contributions business can make in fulfilling human rights. A few key areas that are critical for businesses and public policymakers involved in the energy sector to consider include:

- An enabling policy environment is critical to the success of DRE enterprise development, and this should support more collective enterprises. In Honduras, some of the WLSEEs found financial structures and legal frameworks for business set-up difficult to navigate and not always conducive to their collective enterprises. Policymakers should consider what can be done to better support and pave the way for a diversity of small and medium enterprises, including collective and cooperative enterprises and community ownership models.
- DRE can be an important enabler of rural industries and climate-resilient food production, especially where attention is paid to the context-specific and underserved energy needs of women and marginalised communities. In Malawi and Honduras DRE technologies were deployed that met the specific needs of women's agricultural and food processing enterprises, enabling women to capitalise on the benefits of energy access to develop their businesses, and in the case of Honduras especially, to build resilience to the impacts of climate change. Policies that could support more approaches like this include decentralisation of energy planning and decision making, and facilitation of community participation in research to develop appropriate technologies and overcome specific challenges for climate-resilient food production.
- Small-scale entrepreneurship, especially by women, can support the diffusion of sustainable renewable energy technologies to 'last mile' communities. The WLSEEs, especially in Honduras, provided opportunities for women to connect with others in their communities to raise awareness of what DRE technologies can offer and to deliver products and services. It has previously been recognised that female energy entrepreneurs can help accelerate the distribution and uptake of DREs.³⁷¹ However the WLSEEs did report barriers to their recognition as women in business. A conducive policy environment that supports the development of women's enterprises in renewable energy technologies and products should

therefore be a priority. This should include enabling fiscal policies for off-grid clean energy products, industry standards and certification of quality-assured market products, and improving ease of doing business for women (such as streamlined processes for business registration and licensing, easy access to information, guidance, application submission and follow up).

- Sustainable renewable energy access is central to reducing gendered inequalities in unpaid care **responsibilities.** Policymakers should pay greater attention to the energy needs of households, family farms and homebased industries in rural areas, including for powering public services, and should also consider measures to bring more women into the renewable energy sector. Gendered inequalities in the distribution of unpaid care and household provisioning, combined with the more limited opportunities for women to earn income through paid jobs, means many rural women spend disproportionate amounts of time and effort doing unpaid care and household provisioning activities, further limiting their ability to earn income. The WLSEEs helped address some of these gaps, and also challenged stereotypes of what are 'suitable' jobs for women, enhanced opportunities for women to access technical training and promoted much needed normative change.
- The private sector can play an important role, but goodwill, regulation and incentives are needed. Project participants emphasised the importance of the private sector, as a critical provider of services and employment in the renewable energy sector as well as being key to linking small businesses to markets. Private companies were also central to building the skills of the WLSEEs. For example, in Honduras, a willingness by some larger and more established businesses, including providers of renewable energy technologies and finance, to support the technical and business management skills of the WLSEEs was critical to their success. However, not all private actors approached had the commitment and goodwill to support the entrepreneurs, and negotiating contracts to secure goods and services at concessional rates proved difficult in many cases. It was noted that it was easier to work with private sector actors that were not solely motivated by profit, and that already had long-term government and community engagement. Thus, policies to encourage community dialogue and tripartite consultation are applicable and important.

5.3 Wider challenges and policy considerations

Despite the many potential benefits of locally led DRE approaches, ³⁷² our programme experience suggests that there are also challenges, which both businesses and governments can help to overcome. The necessary technologies are still largely manufactured in wealthier countries, creating import dependence, which can affect affordability and may mean design is not fully appropriate to local conditions. Companies able to set up new manufacturing hubs and attune their products to local contexts may benefit from subsidies or other incentives. Particularly in Africa, the need for both investment and enabling policies to build national and regional capacities to manufacture and deploy new technologies is increasingly recognised.³⁷³

Lack of finance may not be the only barrier. Private investment may be constrained by high tariffs on imported components or lack of quality standards, and subsidies for grid-based power can be a disincentive to invest in DRE.³⁷⁴ Our partners have highlighted a need for better knowledge about what's needed in different contexts to help leverage investment.

Energy to progress other rights

From a human rights perspective, states should have the resources they need to deliver sustainable renewable energy services (or provide access to the means to generate energy) sufficient to reliably power essential public services and increase the use of electrical appliances that can significantly improve health and wellbeing. It is essential that the concerns of people living in poverty (particularly those of women) shape planning and prioritisation to ensure investment in affordable solutions for often overlooked areas such as rural industries, household insulation and efficient cooling, clean cooking, and sustainable transport. The global North must step up to deliver climate finance and other financing for development to enable poorer countries to meet these multiple challenges.

At national level, more cross-sectoral collaboration and policy certainty to deliver the right energy technologies and services to serve marginalised communities is needed.³⁷⁵ Taking rights to health as an example, provision of energy services falls short in many relevant areas such as for food processing and storage, clean cooking, water purification, and home heating and cooling, as well as energy for hospitals and other public health services, and for sustainable public transport infrastructure to enable access to these. This undermines rights and contributes to inequality (especially gender disparities). In much of the African continent, just 28% of healthcare facilities have reliable electricity.³⁷⁶ In Kenya, just over half (54%) of health facilities

Box 12: The role of energy subsidies and tax incentives

Subsidies and tax breaks must be publicly financed, so if used should contribute to achieving development goals. Currently, subsidies on energy production are still mostly directed at fossil fuels or electricity produced from these, effectively incentivising fossil fuelbased energy systems.

Consumption subsidies, such as on electricity tariffs (or VAT exemptions on clean energy products) aim to reduce costs for consumers but tend to bring the greatest benefits to people who consume most energy or energy products, so are not always effective in addressing energy poverty.

In many cases, therefore, energy subsidies and tax breaks need to be redirected or reconsidered to ensure they are a better use of public resources to further greenhouse gas mitigation and equity aims. Subsidies on fossil fuels will ultimately need to be phased out, but some fossil fuels (such as kerosene, a relatively cheap alternative to fuelwood for people who lack the means for clean cooking) significantly support household economies of lowincome groups. A just transition demands compensatory action, for example through holistic social protection systems, careful sequencing, social dialogue and upstream interventions including access to sustainable energy and services such as affordable public transport.

have reliable electricity.377 The Alliance of Civil Society Organisations for Clean Energy Access (ACCESS), which advocates transparent and inclusive energy decision making, has highlighted the need for greater integration of energy service delivery into wider sectoral and development planning at national and subnational levels, including for agriculture, health and education.378

Scaling up

Scaling up sustainable renewable energy to meet burgeoning needs will require policies and incentives to encourage innovation in and wider uptake of decentralised approaches. This may be just as important as extension of national grid connections or regional and cross-border power systems integration, to which considerable investment is directed. The needs and rights of people living in poverty should be at the forefront of decision making as well as sustainability.

Policies to support affordability and availability of appropriate household-level DRE technologies and battery storage, such as tax exemptions on imported components, value added tax exemptions on sales to consumers, and measures to localise production of all or some components, may all prove helpful in ensuring uptake and bring wider benefits, such as for job creation. An example of this is Bangladesh's widespread adoption of solar home systems, which was supported by the Infrastructure Development Company Limited – a company established by the government to finance development of renewable energy - as well as microcredit institutions that provide affordable finance at household level. Where there is also grid connectivity, favourable feed-in tariffs may incentivise household investment in DRE, support affordability and help maximise the potential of DRE to contribute to overall electricity supplies. In Bangladesh, a need to upgrade outdated grid infrastructure has been identified as a barrier to successful integration of rooftop solar and other decentralised solar installations³⁷⁹.

Limitations to household-level approaches may include affordability and limited power generation that is insufficient to meet all energy requirements, especially where space is limited and in densely populated urban areas where only communal 'rooftop' or similar systems may be feasible.380 Mini-grids, which comprise a set of small-scale electricity generators connected to a distribution network that supplies electricity to a relatively small, localised group of customers, 381 offer enormous potential as alternatives. Mini-grids often operate independently from the national transmission grid but can also be integrated with it. Increasingly, they are powered by renewable energy. They

Box 13: Don't Gas **Africa Campaign**

African campaigners are challenging the African Common Position on Energy Access and Just Transition, which calls for development of gas as crucial for energy access and economic development in the transition to renewable energy. The Don't Gas Africa campaign argues that this approach is poorly evidenced and inconsistent with the findings of international bodies, and that it lacks critical analysis about the causes of energy poverty, the risks of stranded assets, and the threat of fossil fuel production to sustainable development. It argues that the role of fossil gas in the transition is limited and does not justify an increase in fossil gas production or investment in new fossil gas infrastructure.

Sources:

Africa Speaks with Unified Voice as AU Executive Council Adopts African Common Position on Energy Access and Just Energy Transition African Union

Don't Gas Africa

Don't Gas Africa Letter to African Leaders

IPCC AR6 Synthesis Report: Climate Change 2023

already provide electricity to some 47 million people, mostly in East Asia and the Pacific, and many are planned in Africa.382 Mini-grids can be designed to harness the most sustainable options from solar, wind and other locally available sources of energy, for instance hydropower or sustainable biomass such as crop residues, sometimes in combination.383 Where grid connections are available, feed-in tariffs can be an incentive to encourage private investment in mini-grids. In Honduras, where development of large-scale hydropower has been problematic, there are indications that feed-in tariffs introduced in 2007384 may incentivise smaller, more sustainable hydropower plants and independent mini-grids in rural areas, with connections to the main grid.385 Mini-grids also lend themselves to decentralised planning with community participation, which can help to ensure consideration is given to the most appropriate technologies and means of deployment. They can be developed for small and remote communities as well as populations of tens or hundreds of thousands of people and can power industries as well as households.³⁸⁶ However, a 2023 consultation found that the mini-grid sector has struggled to lobby for enabling policies such as import tax exemptions for vital components including batteries, cabling and electronics, and policies to help keep the costs to consumers in line with those of national grid connections where these are heavily subsidised.³⁸⁷ Regulatory Indicators for Sustainable Energy (RISE), which provide energy investors with data to assess (from a private sector perspective) national policies and regulatory frameworks against a range of indicators, show that where data is available policy frameworks are least developed for off-grid and mini-grid systems compared to other areas such as frameworks for grid electrification.388

Energy security and human rights

Energy security³⁸⁹ depends on factors such as sufficiency of resources, reliability of infrastructure, stability and affordability of supplies, protection from external threats ('energy sovereignty'), and the ability to withstand diverse disruptions (or 'resilience' of energy systems). Concerns about energy security often drive energy policy, but usually this means a focus on the national level while there is less attention on measures to address the energy poverty of marginalised individuals and groups, or to develop the possibilities provided by more decentralised energy generation.

In the face of climate crisis, resilience is a priority. The energy transition offers an opportunity to shift the focus to addressing energy poverty as a priority, to enhance household-level energy security and resilience, while simultaneously enhancing

national energy security through reduced dependence on energy imports and more resilient energy infrastructure.

However, there are also challenges. States may be reluctant to quickly phase out fossil fuels unless they are sure the energy they produce can be replaced, a concern that may be amplified by the fact that many parts of the renewable energy sector are dominated by a few large companies. A desire to meet rapidly increasing energy needs may also be a disincentive to phasing our fossil fuels. Other challenges may include lack of finance, raw materials or expertise to replace outdated or 'stranded' infrastructure. With the need to rapidly shift to sustainable renewables in a wider context of increasing climate vulnerability and instability in many parts of the world, policymakers may need to develop a new and often uniquely contextual understanding of energy security, how it is best achieved, and how best to foster the contributions of business to this end.

Despite the best intentions, for some countries, the urgent need to address poverty has made it necessary to ensure sufficiency of supply through heavy reliance on imported fossil fuels or electricity generated from non-renewable sources. One example is Bangladesh – although it is a trailblazer in promoting solar home systems and in policymaking for renewable energy more broadly,300 it faces specific constraints (including lack of available land and seasonal flooding) that present challenges to scaling up renewable energy generation. Bangladesh has so far fuelled its industrialisation, which has been critical to reducing poverty, largely from domestic or imported fossil fuels.³⁹¹ The energy transition will depend on international support, on a basis of CBDR-RC, to enable vulnerable countries to overcome the constraints they face.

International cooperation will also need to ensure human rights compliance and fairness in cross-border trade in electricity where countries continue to depend heavily on imported supplies. Even if from renewable sources, there may be risks. For example, large-scale hydropower generation (currently the main source of electricity from renewables)392 can be a source of conflict and human rights violations (for example, resulting from land displacement or diversion of water supplies) both internally and across borders, where adequate protections are not in place.

Risks of import dependency also apply to materials or components for manufacture of clean technologies within national borders, especially where these rely on metals and minerals that are scare or produced only by a few nations. Thus, in future, energy security will depend on international With the need to rapidly shift to sustainable renewables in a wider context of increasing climate vulnerability and instability in many parts of the world, policymakers may need to develop a new and often uniquely contextual understanding of energy security, how it is best achieved, and how best to foster the contributions of business to this end.

cooperation as well as national or regional industrial policies to support 'home grown' renewable energy sectors and supply chains as far as possible.³⁹³

Key questions include whose energy security is being considered and what does this look like in different contexts? More decentralisation of energy policy (see Box 10) may be one way to answer these. Often energy security is seen as synonymous with 'electricity security' and expansion of national grids, but in remote areas where electricity comprises only a small proportion of total energy consumption,394 a focus on needs such as efficiency in the use of biomass for clean cooking or heating, alternatives to diesel- or kerosene-powered appliances and generators, and locally appropriate DRE for electrification, is needed. Shifting investment to these underserved areas may require state intervention. ACCESS recommends that at least 50% of public finance from donor countries for energy in developing countries should go to energy access, with two thirds of this going to decentralised renewable electricity and clean cooking solutions. It also recommends increasing support for energy enterprises and other groups delivering energy services to last-mile communities, as well as non-market-based approaches to deliver access to the poorest groups.395

Most governments see the energy transition as an opportunity to increase diversity of energy sources while decreasing the energy intensity of economies, but energy security concerns often discourage rapid action to stop imports or extraction of fossil fuels.396 It is important that countries with high levels of energy poverty are not compelled to transition before they are ready to sustainably achieve energy security, but also that they are not unduly influenced by fossil fuel and related companies that amplify energy security and economic growth concerns to encourage a policy environment that perpetuates reliance on and investment in fossil fuels. Both scenarios have highlighted a need to make the drivers of capital investment fairer to ensure greater alignment with national, subnational and community priorities for a just transition.³⁹⁷ Clearly, the power of the private sector must be harnessed and directed to a more people-centred just transition. Regulations and policies providing for subsidies, tax breaks or other incentives that encourage unsustainable practices must be transformed to encourage sustainable innovation and equitable benefit sharing. The World Resources Institute has called on governments to establish zero-emission Energy Transition Plans, working with energy companies, trade unions and civil society to ensure a just transition.398

Box 14: Risks to economies dependent on fossil fuels

The impact of the energy transition on countries heavily dependent on production and export of fossil fuels will be profound. Middle-income countries produce half the world's oil and gas. Some of these, such as Nigeria, also have high levels of poverty and sovereign debt. In countries such as Nigeria, the phase out of fossil fuels could lead to significant revenue loss, with implications for public spending and human rights. To avoid this, international support will be needed to enable economic diversification.

In some vulnerable countries there could also be a difficult transition for employment, in public sectors as well as in the oil and gas sectors where many are in low-paid or informal or contract jobs without social protection, and more broadly among many more indirectly employed by these industries. Businesses have a responsibility to support social dialogue to consult and inform workers in fossil fuel and related industries about energy transition plans, as well as to create opportunities for vulnerable groups to benefit from and participate in the transition and provide workers at risk with adequate social protection.

Sources

World Resources Institute, Just Transitions in the Oil and Gas Sector

The importance of accountable energy governance

Our interconnected world may need to install an additional 1.5 TW of renewable energy capacity per year to replace fossil fuels and keep global average warming within 1.5°C.399 Keeping within this limit would enable more people to overcome extreme income poverty and mean far fewer are likely to fall below poverty lines. 400 There are important sustainability challenges and equity considerations in how this is done, where energy is generated (and for whose benefit), and who pays. 401 lt is essential that adequate public finance is mobilised at all levels to support this, yet despite committing to ambitious carbon reduction plans, many lower-income countries have not received promised finance to be able to fulfil them. The costs of the renewable energy transition should not be borne by poorer countries that have contributed least to global warming.

In the global response, the costs of getting the energy transition right need to be borne equitably, in line with the human rights principle of CBDR-RC. Wealthy countries and particularly historic emitters will need to: increase their contributions to international funds for addressing climate change and financing sustainable development more broadly; be generous in debt cancellation and other measures to ensure poorer countries have the fiscal space they need; and support fair trade and waiving of intellectual property rights.⁴⁰² International investment in renewable energy (public and private) must be coherent with national sustainable development plans and include strong human rights safeguards. 403

Maximising the human rights benefits of the energy transition will depend on good governance at all levels. In this, mechanisms for downward accountability and civil society scrutiny of efforts to promote human rights-compliant business practice will be essential.

At the international level civil society organisations have expressed alarm that the influence of energy corporations within the UNFCCC threatens to undermine the institution's legitimacy and ability to support a truly just transition. The Kick Big Polluters Out campaign⁴⁰⁴ has demanded an end to corporate influence over climate policy, and criticised 405 the appointment of Sultan Al Jaber, the chief executive of Abu Dhabi National Oil Company (ADNOC), as the president of COP28 in November 2023.406 The protection of corporate interests by wealthy countries has also been challenged. The African Feminist Task Force has demanded an end to the Energy Charter Treaty, which allows fossil fuel companies to sue governments in secret tribunals, which it feels gives companies undue influence on government decisions and is blocking a just

In the global response, the costs of getting the energy transition right need to be borne equitably, in line with the human rights principle of common but differentiated responsibility and respective capabilities (CBDR-RC).

transition.⁴⁰⁷ Some European countries have stepped back from the Energy Charter Treaty, yet other European governments are being sued under the Treaty.⁴⁰⁸

At national level too, good governance and equity concerns should be paramount for a just energy transition. The NGO Powershift Africa highlights a need for collaboration between civil society and government actors to determine what is needed and to directly support energy access and the needs of marginalised communities, including in adapting or becoming more resilient to climate risks. 409

Balancing equity and sustainability with the need for economic development and energy security presents numerous challenges. On the African continent, Powershift Africa has been critical of the African Union's Renewable Energy Initiative (AREI).410 It has raised concerns about: its governance, including conflicts of interest within the African Development Bank, which currently hosts the AREI secretariat; inappropriate donor influence leading to approval of projects that don't meet its criteria; lack of active engagement by any African countries or civil society in contradiction to AREI's own governance rules; and 'mission creep'.411 Research by the Pan African Climate Justice Alliance (PACJA), Climate Action Network (CAN) and others into African civil society organisation viewpoints and demands with regard to the AREI found a need for transparency and accountability, and for more reference to development policy and civil society perspectives. 412

An accountable private sector

States must act to ensure business accountability in energy and related sectors, as part of a just and equitable energy transition. Energy is an essential public service and a prerequisite for progressing many human rights, but while many civil society organisations demand greater public investment in and ownership of energy systems and a move away from 'commodification' of energy, energy systems remain to a large extent in the hands of private companies.

Companies can contribute to a just energy transition in the ways they do business, for example by supporting participatory research and innovation, making affordable energy products and services widely available, and investing in skills sharing and value addition to support economic diversification in poorer countries. They can also work with governments and civil society to promote social dialogue, create green and decent jobs, support access to social protection for employees, and use their influence to support policies and regulation for a just transition. Yet civil society monitoring of oil and gas, automotive, and electric utility companies continues to find that

the vast majority are failing to demonstrate efforts to ensure a just transition. States therefore have a responsibility to hold businesses to account, not only for preventing violations of rights, but also for contributing to the broader public good.

PART III: PRINCIPLES AND RECOMMENDATIONS FOR A 'JUST ENERGY TRANSITION'

A just and equitable energy transition must encompass more than just technological change. It must centre human rights, transform power relationships and decolonise development. In this section we set out ten principles for an accountable private sector that puts human rights at the heart of a just and equitable energy transition. As this is a prerequisite for progressing many human rights, states have primary responsibility for taking action, but international financial institutions, intergovernmental organisations and businesses must also play their part.

Champion the participation of rights holders in policymaking on the renewable energy transition.

To put human rights at the heart of a just and equitable energy transition, states should firstly ensure participation of rights holders in the design and implementation of policies and actions relating to energy and other sectors involved in the renewable energy transition, including by strengthening institutional capacities for this. Important aspects of this include respect for the right to give (or deny) free, prior and informed consent (FPIC) for any mining or large-scale renewable energy operations on ancestral lands of indigenous peoples in line with international human rights standards, and effective mechanisms such as tripartite social dialogue and devolved decision-making structures, as well as dialogue and negotiation between companies and local communities, including women leaders, throughout the life cycle of projects.

To be coherent with a human rights-based approach and sustainable development imperatives, decision making on the design and implementation of policies and projects, investment flows and research and development must be informed and influenced by public participation and the needs and priorities of people who are most marginalised or at risk of adverse human rights impacts. Relevant human rights include the right to development, by virtue of which 'every human person and all peoples are entitled to participate in, contribute to, and enjoy economic... development, in which all human rights and fundamental freedoms can be fully realized'.⁴¹³

2. Make it mandatory for businesses to respect human rights.

Our research demonstrates that the largely voluntary approach adopted in national and international frameworks aimed at ensuring human rights protection in the context of business operations is wholly inadequate to prevent, mitigate and remedy adverse impacts on human rights and the environment. Voluntary standards and private sector-ledframeworks should be replaced by mandatory requirements for companies.

States should adopt mandatory regulations imposing clear duties on companies, including:

- A corporate duty to conduct human rights and environmental due diligence, incorporating comprehensive human rights, environmental, social and gender impact studies, explicit requirements for reporting on the implementation of 'free, prior and informed consent', and the duty 'to take appropriate action' to prevent and mitigate adverse human rights impacts directly linked to companies' operations, products or services and in their business relationships. Due diligence should encompass the entire value chain, the company's entire corporate structure and operations conducted through subsidiaries, affiliates, joint ventures, subcontractors and suppliers. New legislation should be in line with the international standards on due diligence, which apply to all companies and sectors – on a basis proportional to the risk of the activities and size of the business. It should include the legal requirement to: identify and assess; prevent, cease and mitigate; communicate and account for; and remediate the potential and/or actual adverse impacts on human rights and the environment.
- A corporate duty to report sufficient information on company supply chains. Our research demonstrates that lack of transparency in global supply chains is widespread. Even large consumer-facing transnational companies disclose very little information on their suppliers. Transparency should be required regarding each link in the supply chain, providing disaggregated data by project, plant or facility, including information on how much each supplier provides of a given input in terms of volume and value, and in turn, the sourcing of each supplier. Our research demonstrates that this type of information is not publicly available for many global supply chains. This lack of transparency prevents civil society organisations and citizens from accessing information about whether the goods they consume are made from inputs produced

respecting human rights and protecting the environment. They are therefore unable to assess whether the companies involved in a given supply chain are meeting their human rights and environmental obligations. States must recognise and ensure a right to information covering all these elements for local communities and civil society organisations.

- A corporate duty to ensure effective, accessible remedy for historic and other impacts, with a particular focus on addressing the experiences of women and other marginalised groups impacted by energy and other sectors involved in the renewable energy transition, such as the extractive industries.
- A corporate duty to engage with all stakeholders, particularly affected and potentially affected communities, civil society and trade unions, including particularly at-risk groups as a key part of the human rights due diligence

States should set robust legal liability systems. These systems should go beyond due diligence processes.

Enacting binding regulation at the international level is **also needed.** The most effective way to achieve consistent global legal standards is through the proposed UN Binding Treaty (see Box 15). Governments should constructively engage with the Binding Treaty negotiation process and prioritise coverage of all business enterprises regardless of size, sector, operational context, ownership, structure, and parent company-based extraterritorial regulation. The Treaty's provisions and subsequent implementation need to include: mandatory gender impact assessments of business activities; gender-sensitive justice and remedy mechanisms; tax and other fiscal considerations relating to company behaviour; and ensuring respect, protection and an enabling environment for human rights defenders, particularly women, and local communities.

Companies should have strong governance structures to ensure compliance with legislative requirements, including tax compliance. Companies should also use independent audit and other external verification to demonstrate compliance.

3. Build institutional capacity to ensure businesses comply with laws and regulations.

Protective legislation is often poorly enforced. States should put in place strong and effective agencies to regulate and ensure companies comply with legislation. These agencies should cover key areas such as: granting of permits; land rights; land and water use (including extraction and use of surface and

Box 15: The Binding Treaty on Business and Human Rights

After decades of tireless campaigning, in June 2014, the Human Rights Council decided to establish an open-ended intergovernmental working group 'whose mandate shall be to elaborate an international legally binding instrument to regulate, in international human rights law, the activities of transnational corporations and other business enterprises'.

This historic Treaty offers an opportunity to strengthen international standards in this field, including the norm that businesses should support the fulfilment of human rights and several other elements discussed in this report.

The content of the Treaty is being fiercely negotiated among governments. Civil society groups, such as Feminists for a Binding Treaty, can contribute to the drafting process and have an important role to play in holding governments to account for the positions they take up in these negotiations.

Sources:

BHR Treaty Process, OHCHR

Next steps toward a binding treaty on business and human rights

Irish Coalition for Business and Human Rights Time for a Treaty

Gender Lens to the UN Treaty on **Business and Human Rights** briefing

subsurface water sources); taxation; and waste management. Regulatory agencies should set and effectively implement robust standards on ex-ante environmental and human rights impact assessments, including gender impact assessments, revenue and benefit sharing, and decommissioning and ecosystems restoration. States should also ensure sufficient regulatory capacity at the national and subnational level to ensure that rules are complied with. Finally, regulatory criteria regarding government procurement should be updated to include both incentives and exclusion clauses linked to businesses' human rights records overseas, including through their supply chains.

4. Support locally led decentralised and sustainable renewable energy solutions.

Scaling up sustainable renewable energy to meet burgeoning energy needs as part of a just and equitable transition will require financing, policies and incentives to support more small and medium decentralised approaches for delivery of energy services.

Decentralised renewable energy approaches offer multiple benefits. They offer more opportunities for community participation and influence, which can avoid potential human rights violations or adverse environmental impacts. They can also contribute to fulfilling the rights of energy-poor communities, for example, by enabling improvements in public services, rural industries and climate-resilient food production.

Decentralised approaches can also be transformative if attention is paid to the context-specific and underserved energy needs of women and marginalised communities, and opportunities are created for these groups to contribute to design, marketing and installation of decentralised renewable energy technologies. This helps shift the power to generate and benefit from renewable energy from big business to smaller enterprises and communities.

5. Pay particular attention to the rights of marginalised groups and gender equality.

Our research helps establish that the human rights and environmental impacts of energy and other sectors involved in the renewable energy transition carry specific and differential risks for women and marginalised groups who are also, often, excluded from the benefits.

To tackle this issue, more action is needed to understand and address intersecting inequalities at the root of marginalisation and exclusion, as well as measures to prevent human rights violations and provide effective redress when these occur.

States should enforce appropriate measures to address the differential impacts of energy and related sectors, and these should be informed by continuous assessment. Other appropriate responses include measures to support the leadership, voice and agency of women and marginalised groups, and to increase access to resources and to an equitable share of benefits of the energy transition.

6. Protect human rights and environmental defenders.

States should have dedicated resources to ensure protection for human rights defenders, union representatives, social leaders and environmental activists working to protect rights in the context of mining and other extractive industries, large-scale renewable energy projects, and any other activity related to the energy transition that poses significant risks to human rights and the environment.

The concerns of human rights and environmental defenders should be heard and should inform both the ongoing environmental and human rights impact assessment of renewable energy projects and related industries, and any actions designed to address these.

Any intimidatory action against human rights and environmental defenders should be promptly and independently investigated and effective protection measures should be promptly adopted.

7. Enhance transparency in all types of business entities and at all levels of government.

States should improve access to information and scrutiny. Information should be publicly disclosed on companies' operations, including on revenues, profits before tax, taxes paid and accrued, subsidies and other benefits received from governments and international financial institutions, price setting, number of employees, stated capital, retained earnings, and tangible assets. Existing standards for public country-by-country reporting and project-by-project reporting414 should be mainstreamed across countries and sectors through binding regulations and complemented by a requirement for companies to publish their beneficial owners in publicly accessible registers. Opacity of the true ownership of companies makes it harder for governments to collect due taxes and for communities to seek justice with the right powerholders. States should also ensure greater transparency of value chains, price setting, greenhouse gas emissions and the use of public funds to leverage private investment. States must recognise and ensure a right to information covering these areas for local communities and civil society organisations.

8. Effectively tax corporations to mobilise critical climate and development financing.

In order to fulfil their human rights obligations and finance a just and equitable transition, states require fiscal space. Progressive taxation is the foundation for mobilising domestic resources and much more can be done to raise these resources more fairly and more rapidly. Key elements to this involve ending the 'race to the bottom' on corporate taxation by establishing a minimum global corporate tax rate of at least 25%, tackling corporate tax evasion and avoidance through the UN process on global tax cooperation under Resolution A/RES/77/244, and taxing polluting companies to pay for the loss and damage they have disproportionately contributed to.415

States should apply the UN Guiding Principles on Human Rights Impact Assessments of Economic Reforms when considering tax reforms and put in place clear, transparent and credible political, legal and technical processes for publicly discussing tax exemptions in the context of the green transition. This includes ensuring informed and effective participation of local communities in the design, decision making and supervision of these tax policies. States should disclose sufficient information on subsidies and related policies to allow stakeholders to make a full evaluation, including of their human rights impacts and socioeconomic costs and whether they contribute to achieving their stated objectives. Our work with communities in several regions of the world has confirmed that the granting of significant tax exemptions to international corporations in extractive industries is particularly questionable from a human rights perspective. 416 These companies are unlikely to need additional incentives to operate where they do, which is mainly determined by the availability of the resources to be extracted, and their activities are likely to involve significant environmental and human rights impacts.

9. Establish policy coherence within rights-based economies.

Respect for, protection and fulfilment of human rights should enjoy policy primacy. While most states have taken at least some policy measures to help fulfil their international human rights and climate obligations, these measures often conflict with or are undermined by other policy measures, particularly investment, macroeconomic and development finance policymaking, which continue to be overwhelmingly carried out without systematic consideration of human rights implications, yet are so critical in shaping the world around us. This policy incoherence, which fails to centre human rights, continues to be a structural barrier to achieving a just and equitable energy

transition. While the green transition has the potential to bring about stronger alignment between human rights, economic policies and climate action, many governments, especially those with the power and resources to do better, are embracing approaches that widen these gaps instead.

To facilitate policy coherence, states should ensure a transparent national mechanism with a mandate that includes implementation of the UNGPs and explicit recognition of extraterritorial human rights obligations in the context of private sector activities. This mechanism should be mandated to regularly conduct thorough human rights and environmental spill-over analyses of all international trade, debt and taxation agreements to which the state is a party. It should also rectify inconsistencies between the state's economic policies and its obligations under international human rights law and the Paris Climate Agreement. Governments should also take into account their international human rights and climate change obligations when voting as part of decision-making bodies of intergovernmental organisations and international finance institutions, which similarly require strengthened human rights accountability mechanisms.

National policies governing investment and business practice should be **coherent with broader objectives for human rights** and sustainable development and ensure the equitable distribution of costs and benefits of private sector activity, for example through progressive taxation and high standards for health, safety and environmental sustainability. Industrial policies should be well integrated with wider development planning at national and subnational levels to help maximise the private sector's contribution to, for example, decent employment or sustainable infrastructure for delivery of public services. A holistic view is needed to promote broad understanding, collaborative action and investment across sectors, initiatives and levels.

States should ensure the development of a **fast and fair exit plan for fossil fuel extraction**, including provisions for both employees and local communities to engage in planning and decision making on how this can be achieved, and measures such as social protection, reskilling of employees and the creation of new employment opportunities in the wider community to ensure they benefit from more sustainable economic activities. This should also be part of a transformative economic and social plan and a wider commitment to stop extracting fossil fuels.

10. Democratise economic decision making at every level.

In a time when the relationships between the State, the private sector, rights holders and the planet are being fundamentally uprooted, we have to face reality head-on – we cannot expect transformative policy outcomes from decision makers and institutions that are structurally incentivised to maintain the status quo that further concentrates wealth and power and will ultimately destroy the planet. For that reason, we call attention to the structural exclusion of marginalised communities and the global South from economic decision making at all levels and demand truly inclusive spaces that represent rights holders everywhere.

This (re)establishment of social contracts requires states and intergovernmental organisations to recognise and safeguard against the threat of corporate capture, strengthen civic participation and education in key public policy areas, and reaffirm the role of universal and democratic intergovernmental processes, such as the Fourth International Conference on Financing for Development, scheduled to take place in 2025. It also requires enacting global economic governance reforms that strengthen the voice of global South countries in multilateral decision-making spaces.

Annex

Table A1. Progression of deforestation of the Saracá-Taquera National Forest due to the Porto Trombetas mining complex owned by MRN (1979–2020).

Period	Deforested area (hectares)	Yearly deforested area average (hectares)
Mining up to 1985	784.82	130.80
Increase 1986–1990	549.53	109.91
Increase 1991–1995	749.25	149.85
Increase 1996–2000	1,140.27	228.05
Increase 2001–2005	2,032.01	406.40
Increase 2006–2010	1,662.58	332.52
Increase 2011–2015	1,859.23	371.85
Increase 2016–2020	2,066.73	413.35
Cumulative	10,844.42	264.50

Source: Wanderley, 2021.417

MRN's response to a draft of our December 2022 report Profit before People and Planet

Excerpt 1:

'[MRN] has a team of experts in reforestation, having restored c.a. 7.5 thousand hectares over the past 42 years, where more than 14.5 million seedlings of 450 native tree species have been planted to keep a 1:1 rehabilitation policy. MRN also has a long-term partnership with ICMBio, providing financial support to the federal agency for the protection and maintenance of the [Saracá Taquera] National Forest.'

Excerpt 2:

The consultation with two Quilombola communities (Alto Trombetas 2 and Boa Vista) complies with specific protocols designed by the Quilombolas communities and coordinated by competent federal authorities, as defined by the Brazilian legislation. MRN supports the process by providing independent technical advisory to the communities, contributing to the assurance of their right to fully and meaningfully participate in the decisions regarding new projects.'

Endnotes

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- 214 Hydro's response to a set of questions asked by Christian Aid, sent on 25 August 2023 by Jørgen Hanson, Hydro Sustainability Manager, Corporate Sustainability.
- 215 While Hydro does not explicitly disclose this percentage in its 2022 annual report, it disclosed that Hydro's Aluminium Metal sold 2.7 million tonnes of aluminium in 2022 (Hydro's 2022 Annual Report, p23). Out of this, 1.61 million tonnes were primary aluminium produced by Hydro itself, meaning primary aluminium produced either by one of Hydro's five

fully owned plants in Norway, Albras in Brazil or Slovalco in Slovakia (Ibid, p206). Hydro also disclosed that its recycling plants have a total annual capacity of approximately 0.6 million tonnes (Ibid, p23). It is safe to assume that Hydro's recycling plants produced at least 75% of its total capacity in 2022, which is 0.45 million tonnes of aluminium. This means that 0.64 million tonnes of aluminium is a good estimate of the total tonnes of aluminium that Hydro's Aluminium Metal sourced from third-parties. Even if we assume that all this amount concerned primary aluminium, 0.64 million tonnes amounts to 28.4% of the total million tonnes of primary aluminium that Hydro's Aluminium Metal sourced in 2022. This means that approximately 71.6% of the total tonnes of primary aluminium that Hydro's Aluminium Metal sourced in 2022 was primary aluminium produced by Hydro itself. We include the production of primary aluminium by Albras in Brazil and Slovalco in Slovakia in the category 'primary aluminium produced by Hydro itself because Hydro owns a 51% equity stake in Albras, in 2022 owned a 55.3% equity stake of Slovalco (ibid, p205) and in its 2022 annual report. Hydro fully consolidated Albras and Slovalco in terms of production volumes and financial results (ibid, p205). In contrast, under our methodology, the category 'aluminium sourced from third-parties' includes even aluminium coming from Qatalum in Qatar, in which Hydro has 50% equity stake, and companies in which Hydro has a minority equity stake such as Alouette in Canada. This demonstrates that we adopt a rigorous methodology. See also: 'Hydro investing in new automotive extrusion press in Denmark', Hydro, Hydro investing in new automotive extrusion press in Denmark (stating 'The Tønder plant sources low-

carbon and recycled aluminium from Hydro [itself].')

216 Hydro disclosed that Hydro's Aluminium Metal sold 2.8 million tonnes of aluminium in 2021 (Hydro's 2021 Annual Report, p22). Out of this, 1.72 million tonnes were primary aluminium produced by Hydro itself, as defined in the previous endnote (Ibid, p194). Hydro also disclosed that its recycling plants had a total annual capacity of approximately 0.6 million tonnes (Ibid, p22). It is safe to assume that Hydro's recycling plants produced at least 75% of its total capacity in 2021, which is 0.45 million tonnes of aluminium. This means that 0.63 million tonnes of aluminium is a good estimate of the total tonnes of aluminium that Hydro's Aluminium Metal sourced from third parties. Even if we assume that all

this amount concerned primary aluminium, 0.63 million tonnes amounted to 26.8% of the total million tonnes of primary aluminium that Hydro's Aluminium Metal sourced in 2021. This means that approximately 73.2% of the total tonnes of primary aluminium that Hydro's Aluminium Metal sourced in 2021 was primary aluminium produced by Hydro itself.

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Norsk Hydro informed Bloomberg that the three main international destinations of the alumina produced by Alunorte in 2021 were the following: Norway, with 2.2 metric tons of smelter-grade Alumina exported; Canada, with 1.6 metric tons; and the US with 0.6 metric tons. Alunorte produced 6.3 million metric tons of alumina in 2021.

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www.hydro.com/en/media/news/2023/hy dro-and-glencore-to-become-partners-tofurther-develop-alunorte/. See also Hydro's response to a set of questions asked by Christian Aid, sent on 25 August 2023 by Jørgen Hanson, Hydro Sustainability Manager, Corporate Sustainability.

- **229** Hydro's response to a set of questions asked by Christian Aid, sent on 25 August 2023, by Jørgen Hanson, Hydro Sustainability Manager, Corporate Sustainability.
- 230 We make this inference from Hydro's statement in a release on its low-carbon aluminium that 'Hydro CIRCAL 75R is a range of products made with a minimum of 75% recycled, post-consumer scrap aluminium.' See: 'Low-carbon aluminium,' Hydro, https://www.hydro.com/en/aluminium/products/low-carbon-and-recycled-
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- 237 Ibid.
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