

# JET-BHR IN PENINSULAR MALAYSIA

Towards a just energy transition with  
business and human rights principles

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# **JET-BHR IN PENINSULAR MALAYSIA**

Towards a just energy transition with business and human rights principles



An initiative by Klima Action Malaysia (KAMY)



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# Foreword

## **Ili Nadiyah binti Dzulfakar, Programme Director, Klima Action Malaysia - KAMY**

As the Programme Director of Klima Action Malaysia (KAMY), I am deeply honoured to present this report on JET-BHR in Peninsular Malaysia. This report represents the culmination of years of commitment, advocacy, and collaboration with communities, policymakers, and experts, and partners, reflecting our unwavering belief that justice and human rights must be at the heart of a just energy transition.

The energy transition in Malaysia is more than a shift towards renewable energy—it is an opportunity to address longstanding inequalities and injustices while building a sustainable future for all. This report reflects KAMY’s dedication to centring the realities and voices of workers, Indigenous Peoples, women, youth, and marginalised communities, ensuring they are not just included but empowered in Malaysia’s journey of transformation.

As Malaysia assumes its 2025 ASEAN chairmanship under the theme “Inclusivity and Sustainability,” I believe we have a unique chance to lead by example and drive a just, equitable, and inclusive energy transition that truly leaves no one behind.

## **Dhana Raj Markandu, Senior Analyst, Institute of Strategic & International Studies (ISIS) Malaysia**

Access to energy is fundamental to national development. While fossil fuels have driven global progress since the Industrial Revolution, the adverse consequences of their unabated emissions on the climate and environment are undeniable. As we strive to course-correct by accelerating the adoption of low-carbon energy sources, it is crucial to acknowledge, understand, and learn from past missteps.

This insightful and timely study by Klima Action Malaysia emphasises that energy provision cannot be decoupled from the principles of business and human rights. It spotlights the challenges faced across a broad spectrum of industries and communities in Peninsular Malaysia as we progress along the path to a more sustainable future while offering pragmatic recommendations for stakeholders to act upon.

Ultimately, the report compels us to recognise that the success of our energy transition should not be measured purely by reductions in carbon emissions or increases in clean energy capacity, but also by its ability to protect the most vulnerable groups and ensure equitable benefits across all segments of society.

# Glossary

<b>AR6</b> Sixth Assessment Report	<b>GDP</b> Gross Domestic Product
<b>ASEAN</b> Association of Southeast Asian Nations	<b>GET</b> Green Electricity Tariff
<b>BCX</b> Bursa Carbon Exchange	<b>GHG</b> Greenhouse gas
<b>BNM</b> Bank Negara Malaysia	<b>GITE</b> Green Income Tax Exemption
<b>BHEUU</b> The Legal Affairs Division under the Prime Minister's Department	<b>GITA</b> Green Investment Tax Allowance
<b>BHR</b> Business and Human Rights	<b>GST</b> Global Stocktake
<b>CBDR-RC</b> Common but differentiated responsibilities and respective capabilities	<b>HRBA</b> Human rights-based approach
<b>CCS</b> Carbon capture and storage	<b>HRD Corp</b> Human Resource Development Corporation
<b>CCUS</b> Carbon capture, utilisation and storage	<b>HRDD</b> Human rights due diligence
<b>CEDAW</b> Convention on the Elimination of All Forms of Discrimination against Women	<b>HRDs</b> Human rights defenders
<b>CIMB</b> CIMB Group Holdings Bhd	<b>IP</b> Indigenous People
<b>COP</b> Conference of Parties	<b>ICE</b> Internal combustion engine
<b>CRESS</b> Corporate Renewable Energy Supply Scheme	<b>IEA</b> International Energy Agency\
<b>CSO</b> Civil society organisation	<b>ICESCR</b> International Covenant on Economic, Social and Cultural Rights
<b>EAIC</b> Enforcement Agencies Integrity Commission	<b>ICVCM</b> Integrity Council for the Voluntary Carbon Market
<b>EC</b> Energy Commission	<b>ILO</b> International Labour Organization
<b>EFT</b> Ecological Fiscal Transfer	<b>IPCC</b> Intergovernmental Panel on Climate Change
<b>EHRDs</b> Environmental human rights defenders	<b>JC3</b> Joint Committee on Climate Change
<b>EIA</b> Environmental Impact Assessment	<b>JET</b> Just Energy Transition
<b>EPR</b> Extended Producer Responsibility	<b>KBS</b> Ministry of Youth and Sports
<b>ESA</b> Environmentally sensitive area	<b>KPWKM</b> Ministry of Women, Family and Community Development
<b>ESG</b> Environmental, social and governance	<b>LCOE</b> Levelised cost of energy
<b>EV</b> Electric vehicle	<b>LSS</b> Large Scale Solar
<b>FiT</b> Feed-in-Tariff	<b>MEF</b> Malaysian Employers Federation
<b>FPIC</b> Free, Prior and Informed Consent	<b>mHREDD</b> Mandatory human rights and environmental due diligence
<b>GCM</b> Global Compact for Safe, Orderly and Regular Migration	<b>MOE</b> Ministry of Economy

<b>MOF</b> Ministry of Finance	<b>SLAPP</b> Strategic Lawsuit Against Public Participation
<b>MOHA</b> Ministry of Home Affairs	<b>SUHAKAM</b> Human Rights Commission of Malaysia
<b>MOHE</b> Ministry of Higher Education	<b>TNB</b> Tenaga Nasional Bhd
<b>MOHR</b> Ministry of Human Resources	<b>TVET</b> Technical and vocational education and training
<b>MOT</b> Ministry of Transport	<b>UNCAC</b> United Nations Convention Against Corruption
<b>NBABHR</b> National Baseline Assessment on Business and Human Rights in Malaysia	<b>UNEP</b> United Nations Environment Programme
<b>NAPBHR</b> National Action Plan on Business and Human Rights	<b>UNFCCC</b> United Nations Framework Convention on Climate Change
<b>NDC</b> Nationally determined contribution	<b>UNDRIP</b> United Nations Declaration on the Rights of Indigenous Peoples
<b>NPBD</b> National Policy on Biological Diversity 2022-2030	<b>UNGA</b> United Nations General Assembly
<b>NEM</b> Net Energy Metering	<b>UNGPs</b> United Nations Guiding Principles on Business and Human Rights
<b>NETR</b> National Energy Transition Roadmap	
<b>NLAC</b> National Labour Advisory Council	
<b>NSRF</b> National Sustainability Reporting Framework	
<b>NRES</b> Ministry of Natural Resources and Environmental Sustainability	
<b>MyRER</b> Malaysia Renewable Energy Roadmap	
<b>PAC</b> Public Accounts Committee	
<b>PCB</b> Public Complaints Bureau	
<b>PETRA</b> Ministry of Energy Transition and Water Transformation	
<b>PETRONAS</b> Petroliam Nasional Berhad	
<b>PV</b> Photovoltaic	
<b>RE</b> Renewable energy	
<b>REC</b> Renewable Energy Certificate	
<b>REE</b> Rare earth element	
<b>RUUPIN</b> Rang Undang-undang Perubahan Iklim Negara	
<b>SC</b> Securities Commission Malaysia	
<b>SEDA</b> Sustainable Energy Development Authority	
<b>SIA</b> Social Impact Assessment	



# Executive Summary

Malaysia's energy transition is a critical step towards addressing the climate crisis and achieving net-zero greenhouse gas emissions by 2050. However, without careful planning and adherence to human rights principles, this shift risks exacerbating existing inequalities and marginalisation. This report explores the energy transition in Peninsular Malaysia through the lens of Business and Human Rights (BHR) and provides actionable recommendations to ensure an equitable and inclusive transition for all stakeholders.

The National Energy Transition Roadmap (NETR) outlines Malaysia's ambition to achieve a 70% renewable energy capacity by 2050. While this shift is commendable, significant challenges remain. There is a lack of understanding of how the energy transition will impact people across all levels of society, including marginalised groups such as Indigenous Peoples, women, and low-income households. This gap highlights the importance of a data-driven approach that considers the socio-economic impacts of the transition while upholding human rights. Vulnerable groups face specific challenges—Indigenous communities experience displacement and environmental harm due to deforestation and renewable energy projects, women encounter systemic barriers in the workforce, and migrant workers often endure unsafe conditions under extreme heat. Meanwhile, coastal communities are disproportionately affected by rising sea levels and flooding.

Strengthening governance and transparency, while ensuring that people's rights to development and their economic, social, and cultural rights are upheld, is crucial for achieving a just energy transition. Malaysia must adopt robust legal and institutional frameworks to ensure accountability,

such as in its due diligence and procurement processes that enforces human rights standards in energy transition projects. The establishment of an effective grievance mechanism is critical to addressing human rights violations, particularly those affecting Environmental Human Rights Defenders (EHRDs). Businesses must also recognise and operationalise human rights by adopting good governance principles aligned with BHR, publishing regular updates on energy projects, and ensuring that their supply chains respect human rights.

Labour rights protections must be central to the energy transition. Expanding upskilling programmes and social protections for workers in high-risk industries is necessary to minimise job losses and support a smooth transition to renewable energy. Occupational safety standards must also be aligned with the demands of green jobs to protect workers from new risks associated with the changing climate and technologies.

Malaysia's energy transition presents an opportunity to address historical injustices and promote climate justice by prioritising the rights of vulnerable groups and recognising the right to a clean and healthy environment. Collaborative efforts among the government, businesses, and civil society are crucial to ensuring that the transition is fair, inclusive, and sustainable. By integrating human rights principles and a data-driven approach into its energy policies and practices, Malaysia can set a precedent for achieving a just energy transition that leaves no one behind.

The background features a dark blue field with abstract geometric elements. A vertical orange line is positioned on the left side. A horizontal orange line crosses the page. Two large, overlapping circular arcs are present: one in orange and one in teal. The orange arc is centered on the vertical orange line, and the teal arc is centered on the horizontal orange line. They intersect in the upper right quadrant.

# 01 Introduction

The energy transition from fossil fuels-based energy sources to renewable energy sources is part of climate change mitigation needed to reduce greenhouse gas (GHG) emissions. A just energy transition, however, comes together with various conditions and principles that would make it just. The concept of “just transition” first emerged at the 16th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP16) in Cancún in 2010 and was later included in the Paris Agreement after years of trade union advocacy.

Just transition is used to describe a wide-ranging workplace, industry, national and global strategy presented by the global trade union movement to protect those whose jobs, incomes and livelihoods are at risk because of the impact of climate change and climate policies.<sup>1</sup>

The International Labour Organization (ILO) integrated just transition into the United Nations’ 2030 Agenda for Sustainable Development, with its **“ILO Guidelines for a Just Transition to Environmentally Sustainable Economies and Societies for All”** adopted in November 2015.<sup>2</sup> According to the Guidelines, a just transition towards an environmentally sustainable economy needs to be managed well and contribute towards achieving decent work, social inclusion and the eradication of poverty for all.<sup>2</sup> A just transition represents a pathway to a sustainable economy, encompassing macroeconomic and growth policies, industrial and sectoral policies, enterprise strategies, skills development, occupational safety and health, social protection, active labour market initiatives, rights, and social dialogue through tripartism.<sup>2</sup> A just energy transition ensures affordable, reliable and accessible clean energy to everyone but the journey towards clean

energy must not infringe upon the rights of the people, particularly vulnerable and marginalised communities. In 2022, the United Nations General Assembly (UNGA) recognised the right to a clean, healthy, and sustainable environment, urging states, businesses, and stakeholders to adopt policies that uphold this right for all.<sup>3</sup> A just energy transition must prioritise equitable processes and outcomes, recognising the inherent link between the right to development and Economic, Social, and Cultural Rights (ESCR) by ensuring that all individuals and communities benefit inclusively and sustainably from the transition. This report aims to provide recommendations to strengthen Malaysia’s climate action by incorporating just transition principles and the United Nations Guiding Principles on Business and Human Rights (UNGPs)<sup>4</sup> into Peninsular Malaysia’s energy transition policies. The UNGPs emphasise the government’s duty to set clear human rights expectations for businesses, the responsibility of businesses to respect human rights in all their activities, and the necessity of establishing robust mechanisms for complaints and access to remedies.

This report aims to complement the National Baseline Assessment on Business and Human Rights (NBABHR), published by the Legal Affairs Division (BHEUU) under the Prime Minister’s Department in August 2024. Building on *Klima Action Malaysia’s* (KAMY’s) contribution to the environment chapter of the NBABHR, it aims to inform Malaysia’s National Action Plan on Business and Human Rights (NAPBHR) to strengthen the country’s business and human rights framework.





# 02 Report Roadmap

This roadmap provides a structured report guide to a just energy transition through the lens of Business and Human Rights (BHR). Each chapter addresses a specific policy area with an overview, analysis, and targeted recommendations. The recommendations align with the three pillars of the UNGPs: 1) Protect (state duty to protect human

rights), 2) Respect (corporate responsibility to respect human rights), and 3) Remedy (Access to Remedy). They are categorised into government and business recommendations, with suggested lead ministries identified for government actions. These suggestions are not exhaustive and may involve other relevant agencies or entities.

CHAPTER TITLE	DESCRIPTION
<b>Chapter 4: Energy Landscape in Peninsular Malaysia</b>	This chapter examines the energy landscape in Peninsular Malaysia, detailing the transition from fossil fuels like coal and gas to renewable sources such as solar and hydro. It also identifies the key economic sectors driving energy consumption and contributing most to GHG
<b>Chapter 5: Enabling the Economy for a Just Energy Transition</b>	This chapter examines the role of the economic policies in a just energy transition with business and human rights (JET-BHR), focusing on fossil fuel-driven energy consumption. It emphasises the need for policies that are equitable across businesses and people, ensuring the energy transition delivers benefits for all.
<b>Chapter 6: Labour Rights</b>	Workers, particularly those in fossil fuel-dependent industries, are among the most vulnerable to the impacts of the energy transition. This chapter addresses the challenges anticipated for the labour force and explores policy interventions to safeguard their well-being in a low-carbon economy. It examines the accessibility of upskilling and reskilling programmes, the implementation of social protection measures to prevent unfair dismissals, and the need to update safety and health standards in light of climate change and the emergence of green-sector
<b>Chapter 7: Rights of Vulnerable Groups</b>	A human rights-based just energy transition must recognise and uphold the rights of all individuals, particularly vulnerable groups at risk of further injustices without the adoption of BHR principles. This chapter explores these dynamics, focusing on Indigenous Peoples and environmental human rights defenders (EHRDs), who often face threats from renewable energy projects such as hydropower. It also highlights the challenges women face, including entrenched discrimination and societal norms that limit their participation in the labour market, which may similarly hinder their access to reskilling and upskilling initiatives and financing.
<b>Chapter 8: Environmental Rights</b>	The recognition and protection of environmental rights is required to ensure the energy transition is achieved in a way that preserves biodiversity and does not transgress the Earth's planetary boundaries and tipping points. Human rights and environmental rights are interlinked and moving towards low-carbon energy sources must integrate humanity's right to a clean and healthy environment. Social dialogue is a prerequisite for achieving a just transition. While trade unions have pioneered collective bargaining to enhance work conditions and benefits, this chapter explores broader consultations between the government and all stakeholders, focusing on improving collaboration to ensure a just
<b>Chapter 9: Linking climate injustice and the energy transition</b>	This chapter examines the energy transition through the lens of climate justice and decolonisation, recognising that many economic injustices and extractivist practices in the global economy are remnants of the colonial era, repurposed and perpetuated in modern systems. Achieving a just energy transition requires addressing these systemic injustices to ensure equitable participation and meaningful stakes for all countries in shaping a sustainable future.



# 03 Research Scope & Methodology



This report examines the concept of a just energy transition and its varying interpretations among key stakeholders. The shift from a fossil fuel-based, high-emissions economy to one driven by renewable energy and low emissions will affect all levels of society. It is essential to identify potential challenges early to minimise risks and implement effective solutions. This report adopts the broader

framework of a just transition as a guiding principle, focusing specifically on the just energy transition—a critical subset within this framework. While the analysis centres on Peninsular Malaysia, it acknowledges that achieving a truly equitable energy transition requires a nationwide effort.

## JET-BHR Policy Framework

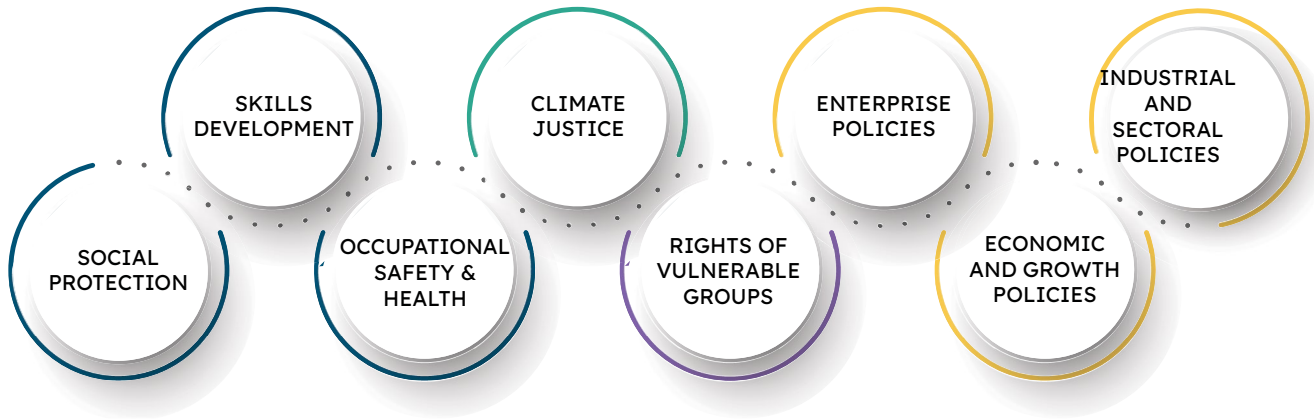
A just transition balances workforce transformation with sustainable development across economic, social, and environmental dimensions. The 2016 United Nations Framework Convention on Climate Change (UNFCCC) technical paper defines it as a transition that ensures social equity while addressing the climate crisis, meeting the needs of the present generation without jeopardising those of the future.<sup>5</sup>

just energy transition draws on the *ILO Guidelines for a Just Transition towards Environmentally Sustainable Economies and Societies for All* and supplemented by the UNGPs framework to address the key dimensions:

UN Climate Change Executive Secretary Simon Stiell highlighted that “the just transition means different things to different people depending on who they are and where they live.” Effective solutions must be inclusive, ensuring no one is left behind—particularly women, Indigenous peoples, and youth.<sup>6</sup> This report’s main framework for a

DIMENSION	KEY CONSIDERATIONS
<b>Economy and Sustainable Development</b>	<ul style="list-style-type: none"> <li>Transition to a low-carbon economy while ensuring equity, human rights, and socio-economic inclusion aligned to Economic, Social, and Cultural Rights.</li> <li>Uphold the right to development and adequate living standards for present and future generations.</li> </ul>
<b>Labour Rights</b>	<ul style="list-style-type: none"> <li>Protect the rights of affected workers, especially those in informal sectors.</li> <li>Ensure robust social protection mechanisms during the transition.</li> </ul>
<b>Empowerment of vulnerable groups</b>	<ul style="list-style-type: none"> <li>Safeguard the rights of vulnerable groups, including women, Indigenous Peoples, and communities impacted by energy transition plans.</li> <li>Address human rights impacts of business activities, such as mining for renewable energy technologies, especially for the most affected.</li> </ul>
<b>Environment</b>	<ul style="list-style-type: none"> <li>Protect biodiversity and ecosystems, recognising their intrinsic value and ensuring they thrive without human interference.</li> </ul>
<b>Climate Change</b>	<ul style="list-style-type: none"> <li>Align with the goals of the Paris Agreement.</li> <li>Apply equity principles, including Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC).</li> </ul>

**Figure 1: JET-BHR Thematic Areas**

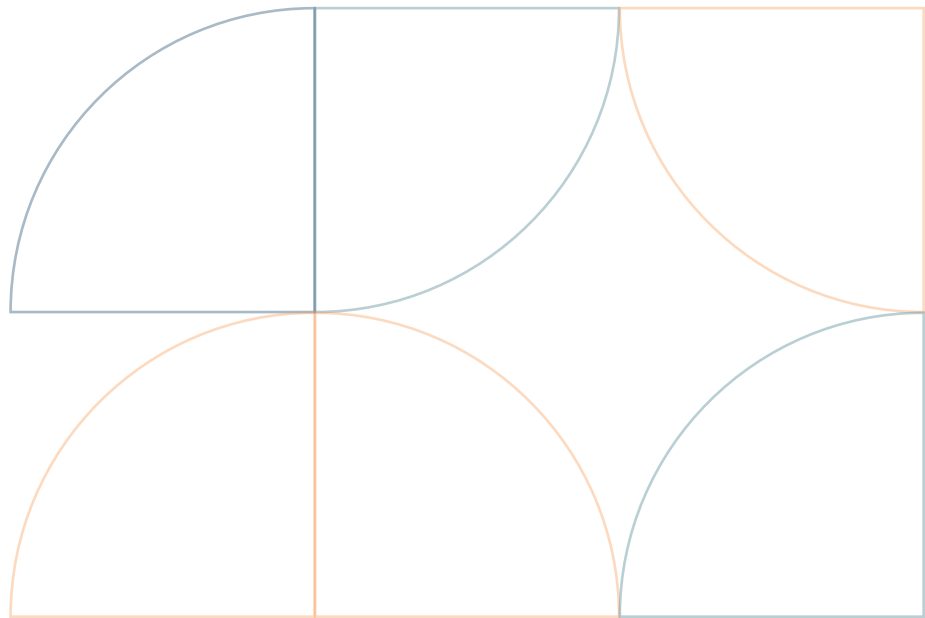


KAMY undertook this research amidst the global momentum toward renewable energy transition and the Malaysian government’s commitment, as outlined in policies like the NETR. The report’s findings are based on interviews and a focus group discussion (FGD) conducted between March and October 2024 with stakeholders including

government agencies, the private sector, civil society organisations (CSOs), and academia. All participants provided informed consent prior to their involvement. The data obtained from the FGD and key informant interviews (KIIs) were then interpreted using framework analysis.

**METHODOLOGIES USED FOR DATA COLLECTION**

<p>Focus group discussion (FGD)</p>	<p>17 representatives from CSOs that work in areas related to the environment, climate change, governance, human rights, gender, consumer rights, local communities and public transportation participated in a focus group discussion. Through a facilitator, written and verbal feedback were gathered from participants on questions related to the JET-BHR covering the economy, labour, rights and climate justice.</p>
<p>Key informant interviews (KIIs)</p>	<p>Face-to-face and online interviews were conducted between April and October 2024 with 16 stakeholders from civil society, the private sector including business coalitions, academia and a government agency. During the interview, participants were asked questions on JET-BHR covering the economy, labour, rights and climate justice.</p>



**List of stakeholders that participated in KAMY's data collection for the JET-BHR report.**

	NAME	POSITION	ORGANISATION
<b>CIVIL SOCIETY ORGANISATION (CSOs)</b>			
1	Adrian Pereira	Executive Director and Co-Founder	North-South Initiative
2	Ahmad Afandi Nor Azmi	Environmental & Sustainability Lead	Malaysian CSO SDG Alliance
3	Ayesha Sofia	Programme Officer	EMPOWER
4	Divakaran a/l Prabhakaran	Social Media	EMPOWER
5	Charles Tan	Chairperson	Centre for Environment, Technology & Development Malaysia (CETDEM)
6	Eqram Mustaqeem	Research and Policy Analyst	Third World Network
7	Evelyne Low	Member	Kuala Lumpur Residents Action for Sustainable Development (KLRA+SD)
8	Hamizah Shamsudeen	Climate and Energy - Campaigner	Greenpeace Southeast Asia
9	Irene Xavier	Executive Director	Persatuan Sahabat Wanita Selangor (PSWS)
10	Marisa Hutchinson	Environmental Justice Programme Officer	International Women's Rights Action Watch Asia Pacific (IWRAP Asia Pacific)
11	Nor Diana Mohd Roslan	Officer, Law and International Treaties Division	SUHAKAM
12	Yustina Ishak	Officer, Law and International Treaties Division	SUHAKAM
13	Nabila Zulkeflee	Environmental Research Officer	The Center to Combat Corruption and Cronyism (C4 Center)
14	Prishanth Linggaraj	Policy and Legal Research Officer	C4 Center
15	Wong Si Peng	Events & Project Officer	C4 Center
16	Shakila Zain	Exco Hubungan Korporat, Media & Komunikasi	Kumpulan Aktivist Sahabat Alam (KUASA) Perak
17	Shalini Mohan	Human Rights Strategist, Strategic Litigation	Malaysian Center for Constitutionalism and Human Rights (MCCHR)
18	Shantini Guna Rajan	Policy Lead	WWF-Malaysia
19	Yong Check Yoon	Research Officer	Consumers' Association of Penang (CAP)
20	Cheong Sze Hoong Zac	Vice Secretary	Transit Malaysia

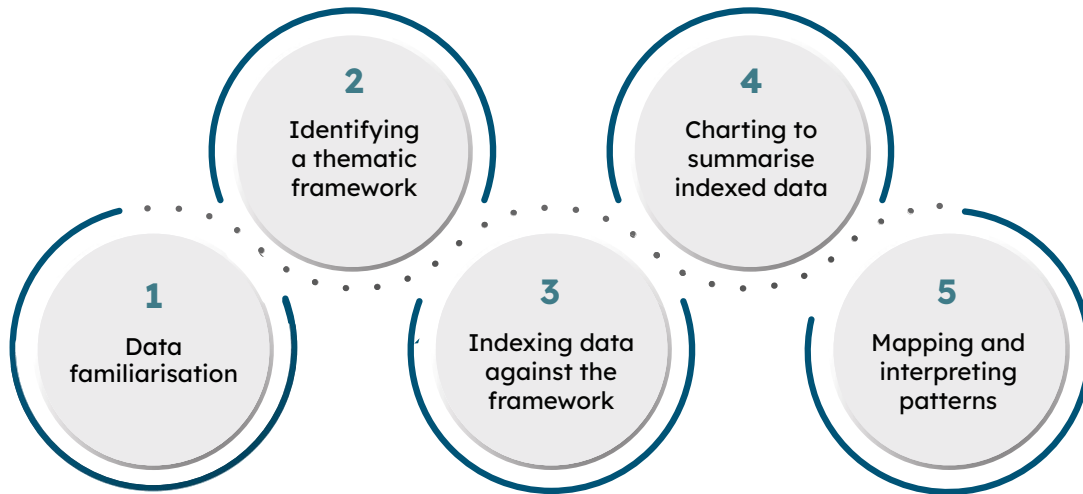


	NAME	POSITION	ORGANISATION
<b>PRIVATE SECTOR</b>			
21	Emily Oi Yen Tse	Company Director	Business Council for Sustainable Development (BCSD) Malaysia
22	Faroze Nadar	Executive Director	United Nations Global Compact for Malaysia and Brunei (UNGCMYB)
23	Dr Gary Theseira	Director	Climate Governance Malaysia (CGM)
24	Hakim Albasrawy	Former Staff	Sols Energy
25	Luanne Sieh	Group Chief Sustainability Officer	CIMB Group
26	Gabriel Chong	Director	CIMB Group
27	Datuk Shamsuddin Bardan	Executive Director	Malaysian Employers Federation (MEF)
<b>ACADEMIA</b>			
28	Dr Norasikin Ludin	Deputy Director	Solar Energy Research Institute (SERI), Universiti Kebangsaan Malaysia (UKM)
29	Dr Vivien How	Senior Lecturer	Department of Environmental and Occupational Health, Faculty of Medicine and Health Sciences, Universiti Putra Malaysia (UPM)
<b>GOVERNMENT AGENCY</b>			
30	Saiful Hakim Abdul Rahman	Director, Strategic Planning Division	Sustainable Development Authority (SEDA)
<b>INTERNATIONAL ORGANISATION</b>			
31	Representative from an international organisation		
32	Representative from an international organisation		

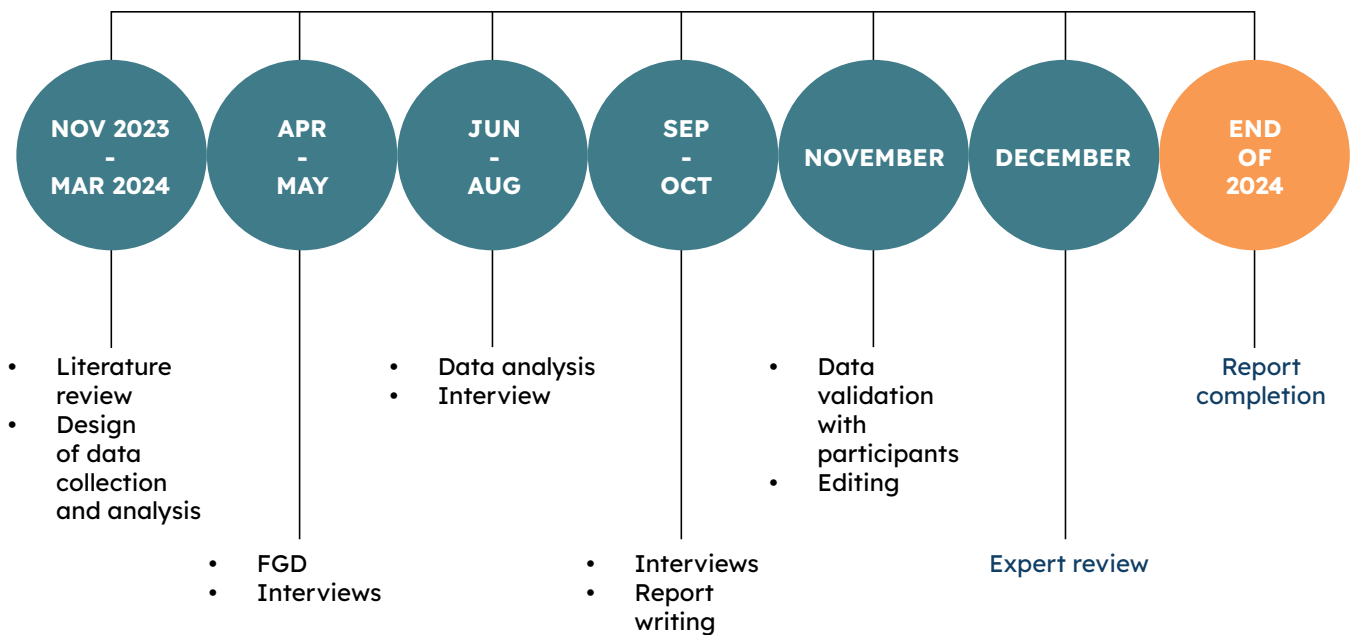
## Analysis Framework

Framework analysis was utilised to analyse qualitative data, including anecdotal details gathered through FGD and KIIs for the research, following a timeline in Figure 2. This method involves

two main components: developing an analytical framework and applying it systematically. The process consists of five key steps:



**Figure 2: Timeline of JET-BHR Research**





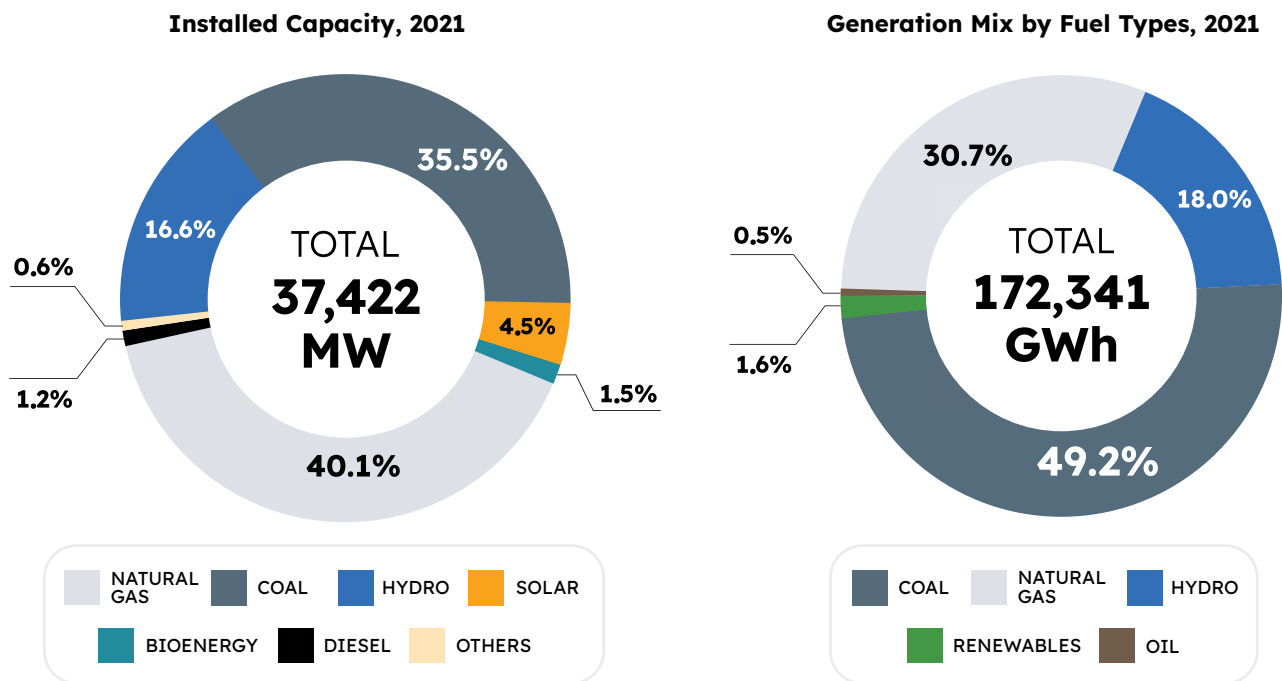
# 04 Overview of Energy in Malaysia

## Energy Landscape in Malaysia

Malaysia derives most of its energy from fossil fuels. As of 31 December 2021, primary energy supply in Malaysia totalled 94,401 ktoe (kilotonnes of oil equivalent) and was supplied by natural gas (44.8%); crude oil and petroleum products and others (26.7%); coal and coke (24.3%); and hydropower (2.8%) and renewables (1.3%). Fossil fuels contributed to almost all the sources of primary energy supply (95.8%). Final energy consumption in 2021 totalled 57,250 ktoe (Peninsular Malaysia (72.3%), Sarawak (18.0%) and Sabah (9.7%)).<sup>7</sup> Between the period 2000 to 2021, Malaysia’s primary energy supply and final energy consumption displayed a steady increase, alongside gross domestic product (GDP) growth.

During the same period, installed capacity of electricity in Malaysia totalled 37,422 MW (mega watt) and was sourced from natural gas (40.1%), coal (35.5%), hydropower (16.6%), solar (4.5%), bioenergy (1.5%), diesel (1.2%), and others (0.6%). More than three quarters (76.8%) of installed capacity in Malaysia was derived from fossil fuels, generating 80.4% of electricity. Renewables contributed 22.6% to installed capacity and 19.6% to the generation mix, with the most coming from hydropower. While the share of solar’s capacity (4.5%) is increasing, its contribution to actual generation is much lower due to intermittency (Figure 3).<sup>7</sup>

**Figure 3: Installed Capacity vs Generation Mix by Source in Malaysia, 2021, adapted from Energy Commission (EC)**



Source: Power utilities, independent power producers (IPPs), SEDA Malaysia and Ministry of Utility and Telecommunication Sarawak

Figures exclude electricity generation for self-generation plants

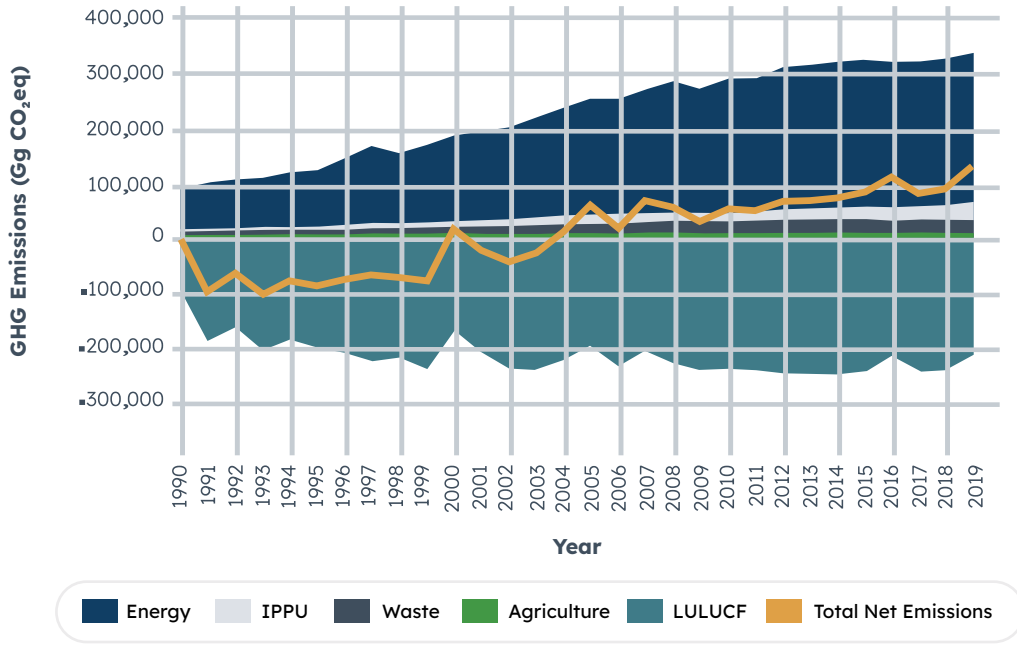
Source: Power utilities and IPPs

Malaysia operates three grids in Peninsular Malaysia, Sabah, and Sarawak. These are regulated by the Energy Commission (EC) for Peninsular Malaysia;<sup>8</sup> the Energy Commission of Sabah (ECoS) for Sabah;<sup>9</sup> and the Ministry of Utility and Telecommunication (MUT) for Sarawak.<sup>10</sup>

Malaysia’s energy sector emitted 259,326.11 Gigagram CO<sub>2</sub> equivalent (GgCO<sub>2</sub>eq) in 2019; or 78% of total GHG emissions (Figure 4). Other sectors that contributed to overall national GHG

emissions are industrial processes and product use (IPPU) at 10%, waste (9%) and agriculture (3%). The time series demonstrated that Malaysia’s total GHG emissions became a net source around 2004. Between 2005 and 2019, GHG emissions from the energy sector increased by 28%, IPPU by 118% and waste by 29%.<sup>11</sup> Malaysia aims to reduce economy-wide emissions intensity against GDP by 45% by 2030 compared to the 2005 baseline as part of its climate change commitment.<sup>12</sup>

**Figure 4: Malaysia' GHG Emissions Time Series (1990-2019), adapted from the Malaysia Fourth National Communication (NC4) Under the UNFCCC**



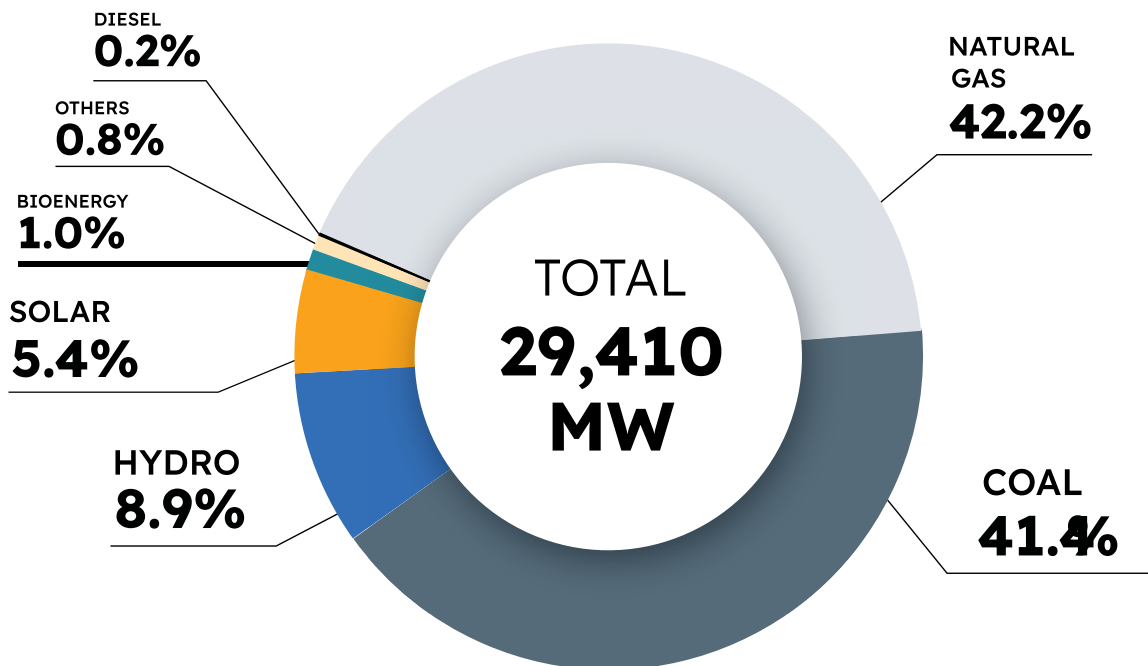
Based on IPCC AR4 100-year time horizon global warming potential (GWP).  
 IPPU - Industrial Processes and Product Use, LULUCF - Land Use, Land Use Change and Forestry

### Energy Landscape in Peninsular Malaysia

In 2021, installed capacity of electricity in Peninsular Malaysia totalled 29,410MW with the sources comprising natural gas (42.2%), coal (41.4%), hydropower (8.9%), solar (5.4%), bioenergy (1.0%), others (0.8%), and diesel (0.2%). Peninsular

Malaysia's installed capacity of electricity has a higher dependence on fossil fuels (83.8%) as its share of hydropower is lower than the national share (Figure 5).<sup>7</sup>

**Figure 5: Installed Energy Capacity in Peninsular Malaysia (as of 31 December 2021), adapted from EC**



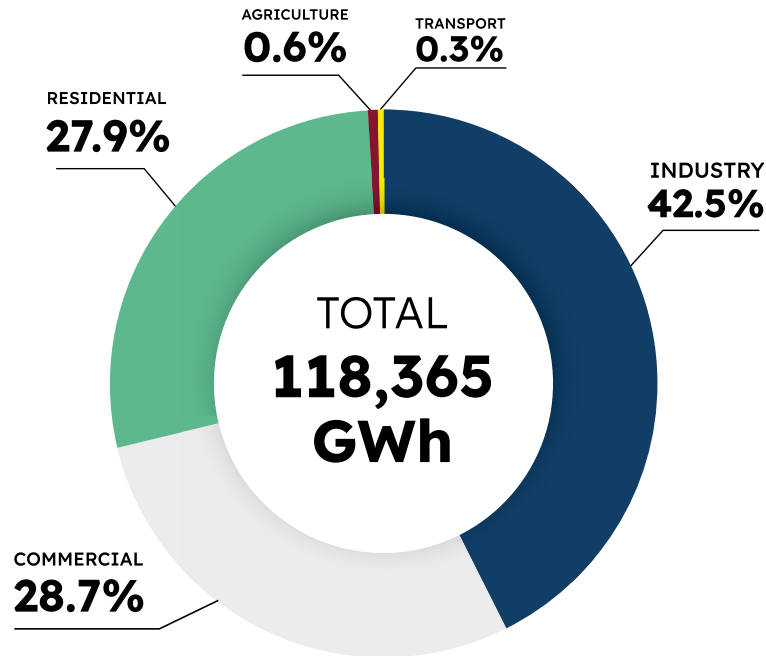
Source: Power utilities, IPPs, and SEDA Malaysia



The economy and daily activities make up a large portion of electricity consumption (Figure 6). Barring any major disruption, Malaysia’s energy demand is forecasted to steadily increase and

thus the need to transition to alternative, cleaner sources of energy as the sector continues to be a significant emitter of GHGs.

**Figure 6: Electricity Consumption by Sectors in Peninsular Malaysia in 2021, adapted from EC**



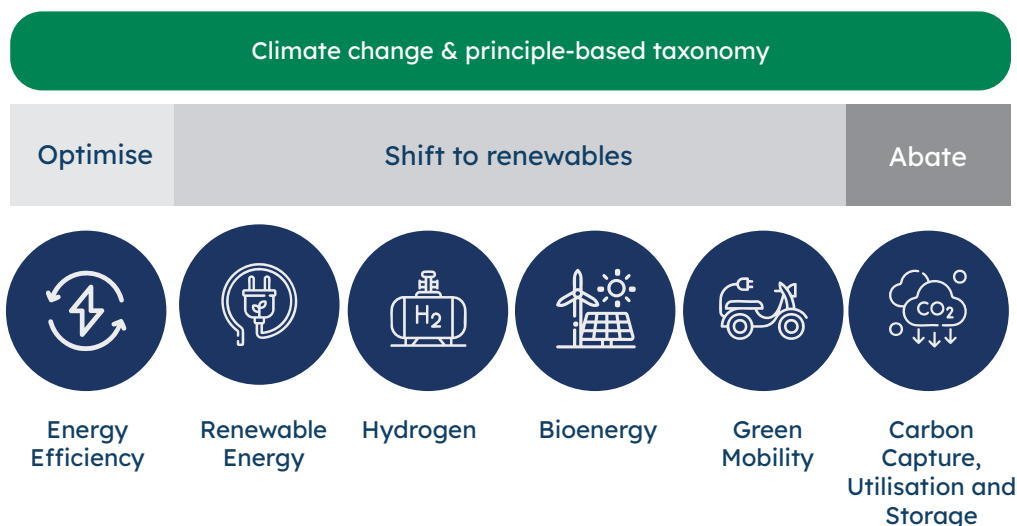
Source: Power utilities, IPPs and self-generators.<sup>7</sup>

### Malaysia’s Energy Transition

In 2023, the Malaysian government introduced the National Energy Transition Roadmap (NETR),<sup>12</sup> building on the National Energy Policy 2022-2040 (DTN)<sup>13</sup> and earlier energy policies dating back to

the 1970s. The NETR outlines 10 flagship projects, six energy transition levers, and five enablers, forming a strategy to achieve its energy goals (Figure 7).

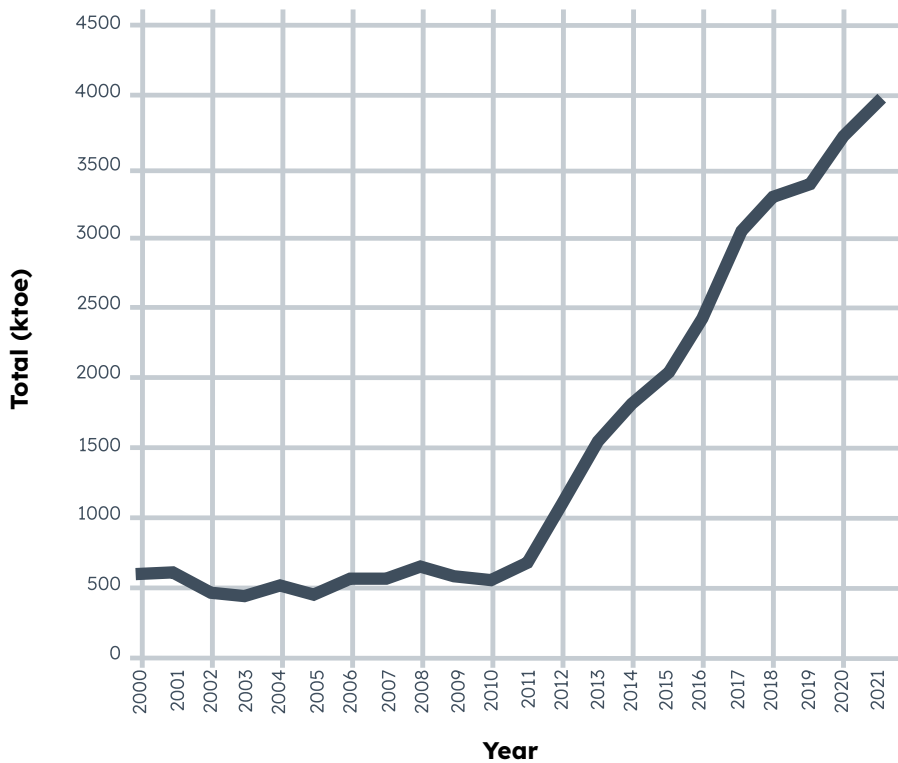
**Figure 7: NETR Targets across Six Energy Transition Levers, adapted from NETR**



The NETR’s **Responsible Transition pathway** aims to increase renewable energy (RE) installed capacity to 31% by 2030, 41% by 2040, and 70% by 2050. The 2050 target comprises 58% solar energy, 11% hydropower, and 1% bioenergy, with solar energy driving most of the projected capacity growth from 2025 to 2050. Even though RE share in Malaysia’s primary energy supply in 2021 is only 4.2%, it showed significant growth

from 2012 onwards following the establishment of the Sustainable Energy Authority (SEDA) after the Renewable Energy Act and Sustainable Energy Development Authority Act were passed in 2011.<sup>14</sup> The share of RE in primary energy supply nationwide hovered between 0.7%-1.2% from 2000 to 2012, and then showed a steady increase from 2012 to 2021 (Figure 8).

**Figure 8: Growth of Hydropower & Renewable Energy in Malaysia’s Primary Energy Supply (2000-2021), adapted from EC**



Initiatives such as Feed-in-Tariff (FiT), Net Energy Metering (NEM) which replaced FiT, large scale solar (LSS), and Green Electricity Tariff (GET) facilitated the adoption of solar energy. From contributing only 10 GWh in 2012, solar power contributed 2,300 GWh in 2021 to the country’s electricity generation mix,<sup>15</sup> though this is still small compared to the share of fossil fuels. Latest initiatives such as the Corporate Renewable Energy Supply Scheme (CRESS) and Energy Exchange Malaysia (Enegem) are expected to scale up solar adoption but much remains to be done to achieve the NETR’s target for solar and other renewables.

Malaysia’s geographic location allows it to receive higher solar radiation but this is countered by frequent cloud cover.<sup>16</sup> This leads to high intermittency of solar output, which requires further support from the grid system, particularly conventional power plants to provide continuous energy supply.<sup>17</sup> An increased share of weather dependent RE such as solar and hydropower will require an energy system that is able to adapt to the effects of extreme weather events such as drought, flood and landslides.

The NETR aims to deliver a 32% reduction in GHG emissions for the energy sector compared to the 2019 baseline. The roadmap recognises that RE will contribute less to the energy generation mix compared to fossil fuels, particularly natural gas, due to solar energy’s low-capacity factor compared to natural gas’s high-capacity factor. Consequently, natural gas is positioned as the low-carbon transition fuel replacing coal and serving as the dominant baseload power

NETR seeks to balance the energy trilemma of security, affordability, and sustainability, in addition to supporting the country’s commitment to a just energy transition that benefits the rakyat. Its second guiding principle identifies the need for a just, inclusive, and cost-effective energy transition, addressing challenges faced by low-income and vulnerable populations. A BHR lens ensures the equitable distribution of transition benefits across society, providing an entry point to align the NETR with a just energy transition—a focus explored in greater detail in this report.



**05** Enabling the Economy for a  
Just Energy Transition



## The Malaysian Economy: A Snapshot

The main goal of a just transition is to move towards environmentally sustainable economies and societies for all, as described in the ILO's Just Transition Guidelines. Peninsular Malaysia's economic policies will need to be reassessed and reshaped in line with the energy transition.

In 2023, Malaysia's GDP grew by 3.6% to RM1.82 trillion at current prices. Peninsular Malaysia, including Federal Territory Kuala Lumpur, contributed 82.3%, followed by Sarawak at 9.1% and Sabah, including Federal Territory Labuan, at 5.8%.<sup>18</sup> The economy's main sectors were services (RM1.0 trillion), manufacturing (RM419 billion), mining and quarrying (RM156 billion), agriculture (RM142 billion), and construction (RM66 billion).<sup>19</sup> External trade totalled RM2.6 trillion, with exports at RM1.4 trillion and imports at RM1.2 trillion.<sup>20</sup> Oil and gas products comprised 15.6% of total

exports, ranking among the top three of Malaysia's eight major export categories.

Fossil fuel revenues, including taxes and non-tax income, typically account for up to 10% of the government's earnings. When combined with windfall tax dividends from Petroliaam Nasional Berhad (PETRONAS), this share reached 30.5% in 2019.<sup>21</sup> For the financial year 2023 (FY2023), PETRONAS paid RM40 billion in dividends to the government, a decrease from the RM50 billion paid in FY2022.<sup>22</sup> The FY2022 dividend accounted for approximately 24.2% of the government's total expenditure of RM206.6 billion in 2023.<sup>18</sup> Malaysia's economy is heavily dependent on fossil fuels, both as an energy source and a significant revenue stream. To ensure a climate-resilient future, the country must adopt policies that support the transition to a greener economy.



## 5.1 Economic and Growth Policies

Malaysia's economic policies since independence have delivered significant social progress, including advancements in education, women's and children's rights, household income, and the eradication of hardcore poverty. However, future policies must address climate change, a just energy transition and persistent and emerging inequalities. Systemic change is essential, as current efforts are limited by existing frameworks. The economy must be reimagined beyond traditional GDP growth and quantitative targets. "The challenge is moving away from a profit-centric view to a long-term perspective," said Shantini Rajan, Policy Lead of WWF-Malaysia. This shift requires transitioning from a resource-intensive, consumption-driven model to one focused on resource conservation and efficiency.

Malaysia allocates a significant portion of its GDP to subsidies, spending RM62.11 billion in 2022. Of this, RM55.44 billion was operating expenditure (opex), with 81.5% (RM45.18 billion) directed towards petroleum product subsidies. An additional RM4 billion from the opex funded electricity subsidies, contributing to Tenaga Nasional Berhad's (TNB) RM10.8 billion claim for the second half of 2022.<sup>23</sup>

Like many developing countries reliant on fossil fuels, Malaysia faces the dual challenge of advancing the energy transition while maintaining affordability, especially if clean energy remains more expensive than subsidised traditional energy sources. Without careful planning, the energy transition could strain fiscal capacity as these nations grapple with increasing energy demand alongside limited financial resources.<sup>21</sup>

The government has demonstrated its commitment to energy subsidy reform, beginning with the Imbalance-Cost Pass Through (ICPT)

### Diversification of the economy

Transitioning to a low-carbon, sustainable economy requires Malaysia to reduce its reliance on fossil-fuel-intensive sectors to protect societal well-being and avoid stranded assets. "Malaysia should explore the feasibility of local-based growth models rather than being overly focused on being an export-led economy," emphasised Charles Tan, Chairperson of the Centre for Environment, Technology & Development, Malaysia (CETDEM). Beyond subsidy rationalisation, tax reforms and efficient public spending are critical to reducing waste and improving resource allocation. Strategic investments should prioritise sectors that drive

mechanism which imposed a higher electricity tariff on high-consumption households beginning in the second half of 2023<sup>24</sup> and the removal of the diesel subsidy in June 2024. In Budget 2025,<sup>25</sup> plans for the rationalisation of RON95 petrol subsidies by mid-2025 was announced, a move expected to impact a broader group of consumers.

A carbon tax is a clear and compelling tool to encourage businesses and consumers to adopt low-carbon energy sources and products. The government plans to introduce a carbon tax on the iron, steel and energy industries by 2026, although no details of the mechanism were provided in Budget 2025.<sup>26</sup> Proponents of a carbon tax argue that its revenues should be transparently reported and directed toward benefiting the public, particularly through investments in renewable energy initiatives. Some suggest targeting specific sectors, such as transportation and oil and gas, while others advocate for a broader application across all sectors. However, critics caution that a carbon tax could impact Malaysia's export-reliant economy, potentially reducing its competitiveness. There are also fears it could exacerbate inequalities by disproportionately affecting middle- and lower-income groups.

environmental and social benefits, including public transportation, renewable energy, agroecology, knowledge-based industries, and repair, refill, refurbish, and maintenance services—supporting the transition to a circular economy. For Peninsular Malaysia, domestically-tailored policy packages are necessary to foster inclusive economic growth that respects environmental boundaries and acknowledges the planet's finite resources.



## JET-BHR Recommendations

This recommendations table is structured around the UNGPs’ two pillars: **Protect and Respect**.

### For government - PROTECT

RECOMMENDATION	GUIDING NOTE
<p><b>1</b></p> <p><b>Fossil fuel phase down and phase out</b></p> <p>Establish a legally binding framework to scale down fossil fuel industries in an orderly, phased manner, ensuring alignment with the 1.5°C target of the Paris Agreement. This includes enforcing the commitment to phase out coal by 2044, providing clear timelines and accountability mechanisms to uphold international climate obligations.</p> <p><b>Line ministries:</b> MOE, MOF, MITI</p>	<p>The UNFCCC COP28 Global Stocktake (GST) emphasises the need to accelerate the phase-down of unabated coal power and transition from fossil fuels in energy systems. This must be done in a just, orderly, and equitable manner, with urgent action this decade to achieve net-zero emissions by 2050.<sup>27</sup></p>
<p><b>2</b></p> <p><b>Protect other at-risk sectors during the energy transition</b></p> <p>Develop and implement robust safeguards to support businesses, workers, and communities dependent on vulnerable industries, including the internal combustion engine (ICE) automotive sector (vehicle manufacturing, repair, spare parts, and accessories), cement, metals, manufacturing, chemicals, and agriculture.</p> <p><b>Line ministries:</b> MOE, MOHR, MITI, MOF, MOT, Ministry of Agriculture &amp; Food Security, Ministry of Plantation &amp; Commodities, and Ministry of Entrepreneur Development and Cooperatives</p>	<p>The ILO’s <i>Just Transition Guidelines (2015)</i> recommend that governments, in consultation with stakeholders, prioritise industries, regions, communities, and workers most affected by the transition.</p>
<p><b>3</b></p> <p><b>Invest strategically in new areas of growth</b></p> <p>Prioritise data-driven investments in low-carbon industries, including renewable energy, public transport, sustainable agriculture, geothermal energy, bioenergy, and palm oil. Expand support to other sectors aligned with sustainability goals.</p> <p><b>Line ministries:</b> MOE, Ministry of Plantation &amp; Commodities, MOF, MOT, PETRA, NRES, and Ministry of Agriculture &amp; Food Security</p> <hr/> <p>Ensure all new investments align with responsible and ethical principles of a just energy transition, incorporating business and human rights standards. Require foreign investments to guarantee long-term job security and prioritise the creation of high-quality jobs with fair pay and decent working conditions.</p> <p><b>Line ministries:</b> MITI, MOHR</p> <hr/> <p>Ensure renewable energy projects address the energy trilemma—security, affordability, and sustainability—while upholding and safeguarding the rights of all people.</p> <p><b>Line ministry:</b> PETRA</p>	<p>The ILO’s <i>Just Transition Guidelines (2015)</i> advocate directing public investments towards low-impact infrastructure, natural resource rehabilitation and conservation, and enhancing climate resilience.</p> <hr/> <p>Principle 9 of the UNGPs, I. <i>The State Duty to Protect Human Rights</i>, B. Operational Principles, requires states to preserve adequate domestic policy space to fulfil their human rights obligations while pursuing business-related policy objectives, such as through investment treaties or contracts.<sup>28</sup></p> <hr/> <p>Principles 1 and 2 of the UNGPs, I. <i>The State Duty to Protect Human Rights</i>, establish that states must protect individuals within their territory and jurisdiction from human rights abuses by third parties, including business enterprises.</p>

RECOMMENDATION	GUIDING NOTE
<p><b>4</b></p> <p><b>Economic restructuring</b></p> <p>Develop economic policies that prioritise social and environmental objectives over mere GDP growth. Carefully assess the readiness of sustainable economic models, such as nature-based economies<sup>29</sup> and responsible resource management, as outlined in the United Nations Environment Programme’s (UNEP) sustainable transition framework,<sup>30</sup> to suit local contexts.</p> <p><b>Line ministry:</b> MOE</p>	<p>The <i>ILO’s Just Transition Guidelines (2015)</i> state that sustainable development and a just transition should be embedded in economic and growth policies.</p>
<p><b>5</b></p> <p><b>Diversification of national revenue including tax reform</b></p> <p>Continue fossil fuel subsidy rationalisation through a phased and orderly approach to minimise public impact, with particular attention to low-income and vulnerable communities. Implement strategic tax reforms to broaden the tax base while avoiding undue burdens on vulnerable groups.</p> <p><b>Line ministries:</b> MOF, MOE</p>	<p>The <i>ILO’s Just Transition Guidelines (2015)</i> recommend that states identify a suitable mix of taxes, subsidies, incentives, guaranteed prices, and loans to support the transition to economically sustainable activities. It also suggests implementing environmental tax reforms to help finance compensation for those disproportionately impacted by the energy transition.</p>
<p><b>6</b></p> <p><b>Circular Economy</b></p> <p>Embed circularity in the economy to ensure responsible resource management. Adopt a whole-of-nation approach to foster a culture of repair, refurbishment, and recycling.</p> <p><b>Line ministries:</b> NRES, Ministry of Entrepreneur Development and Cooperatives, Ministry of Local Government Development</p>	<p>The <i>12th Malaysia Plan</i>, under its third theme of advancing sustainability, emphasises the circular economy as a strategy to address climate change and unsustainable production and consumption practices.</p>

**For business - RESPECT**

RECOMMENDATIONS	GUIDING NOTE
<p><b>1</b></p> <p><b>Fossil fuel phase down and phase out</b></p> <p>Develop a structured plan to phase down fossil fuel consumption, beginning with large businesses and gradually extending to small and medium enterprises (SMEs).</p>	<p>The <i>UNFCCC COP28 Global Stocktake (GST)</i> emphasises the need to accelerate the phase-down of unabated coal power and transition from fossil fuels in energy systems. This must be done in a just, orderly, and equitable manner, with urgent action this decade to achieve net-zero emissions by 2050.</p>
<p><b>2</b></p> <p><b>Invest in Low-Carbon Solutions</b></p> <p>Commit to investing in low-carbon technologies, such as renewable energy, and updating environmental standards to align with current global best practices, including the use of non-toxic and sustainable materials.</p>	<p>The <i>ILO's Just Transition Guidelines (2015)</i> advocate greening all enterprises by adopting energy- and resource-efficient practices, preventing pollution, and managing natural resources sustainably.</p>
<p><b>3</b></p> <p><b>Circular Economy</b></p> <p>Expand training on Extended Producer Responsibility (EPR) and design products to support the transition from cradle-to-grave to cradle-to-cradle models. Establish systems for taking back and responsibly managing products returned by customers.</p>	<p>The <i>Intergovernmental Panel on Climate Change's (IPCC's) Sixth Assessment Report (AR6)</i><sup>31</sup> identifies the circular economy as an appropriate strategy for GHG mitigation.</p>

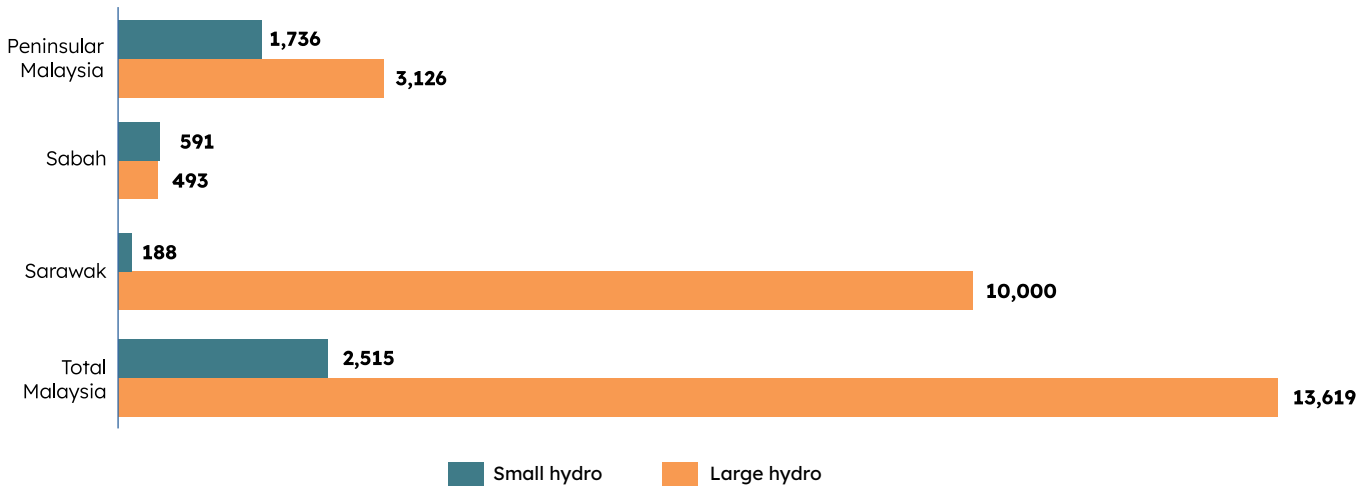
## 5.2 Industrial and Sectoral Policies

This section analyses key energy sectors highlighted in the NETR. For coal-based power plants, a coordinated approach is essential to implement policies that protect workers and communities from negative impacts. Criticism of programmes like the G7-led Just Energy Transition Partnership (JETP) often centres on their narrow focus on coal plant retirements, neglecting the socioeconomic protections required for citizens in recipient countries.<sup>32</sup>

The early retirement of oil and gas infrastructure, along with its supply chains, poses significant challenges for Malaysia. Balancing reduced dependence on this sector with the energy needs of the population will require strategic planning. Renewable energy remains a minor component of Peninsular Malaysia's installed capacity. By 2021, the region had the highest installed solar capacity in Malaysia, approximately 1.7 GW, yet this represents only 1.2% of its solar potential.<sup>33</sup> Challenges such as intermittency and the higher levelised cost of energy (LCOE) compared to fossil fuels highlights the need for policy reforms and innovation.

Peninsular Malaysia holds significant potential for small hydroelectric power, surpassing that of Sabah and Sarawak (Figure 9), according to SEDA.<sup>34</sup> However, the expansion of hydropower faces critical challenges, particularly concerning the rights of Indigenous Peoples. Many rights-related issues tied to renewable energy projects stem from hydropower developments, posing a significant barrier to achieving a just energy transition. In addition to lengthy approval and permitting processes, hydropower projects often infringe on the rights of Peninsular Malaysia's Indigenous Peoples, the Orang Asli, by impacting access to essential water resources. A government agency representative emphasised that lessons from past projects have led to a policy of excluding proposed hydropower projects that compromise Orang Asli's right to clean water from the list of potential developments. Peninsular Malaysia hosts three major hydroelectric projects operated by TNB: the Sungai Perak Hydro Scheme (1,249.1 MW), the Cameron Highlands Scheme (622 MW), and the Kenyir Scheme (665 MW). Additionally, the Nenggiri hydropower plant in Mukim Ulu Nenggiri, Gua Musang, Kelantan, is under construction and expected to commence commercial operation in 2027.<sup>35</sup>

**Figure 9: Resource Potential of Small Hydro and Large Hydro in Malaysia, by Region (MW), adapted from MyRER**



### Emerging Technologies and Sectors in Malaysia’s Energy Transition

Malaysia’s energy transition roadmap identifies three key energy levers (Table 1), raising questions about their feasibility, effectiveness, and fairness. Among these, carbon capture, utilisation and storage (CCUS) is particularly contentious, often viewed as a strategy to prolong natural gas use during the transition. NETR outlines plans

to establish three CCUS hubs by 2030, with a combined storage capacity of up to 15 million tonnes per annum (Mtpa).<sup>12</sup> These hubs will be located near major ports in Kerteh, Kuantan, and Bintulu, utilising nearby offshore permanent storage sites, such as depleted oil and gas reservoirs or saline aquifers.<sup>36</sup>

**Table 1: Selected Energy Transition Levers and Catalyst Projects from NETR**

ENERGY TRANSITION LEVERS	FLAGSHIP CATALYST PROJECTS
Hydrogen	Green Hydrogen Hydrogen for Power
Green Mobility	Future Mobility Future Fuel
CCUS	Carbon capture and storage (CCS) for Industry

“The financial capacity of CCUS must be weighed against potential benefits, especially considering the costs of carbon storage and other related technologies. From the banking perspective, CCUS is viewed as high risk, and the technology is not included in the financial institution’s current net-zero pathway unless, in the future, it is proven to be effective,” said a representative from a leading banking group. The Institute for Energy Economics and Financial Analysis (IEEFA) further highlights the stringent requirements necessary to ensure the safety and effectiveness of CCS, raising doubts about its feasibility.<sup>37</sup> Similarly, ammonia and hydrogen co-firing face criticism

for potentially extending the use of coal, while green hydrogen production remains prohibitively expensive.

The ambitious private electric vehicle (EV) ownership target in the NETR raises concerns about its alignment with a just energy transition. High costs and limited impact on reducing traffic congestion in Peninsular Malaysia’s major cities make this approach less equitable. Prioritising the electrification and enhancement of public transportation would deliver more sustainable and inclusive outcomes.

Rare earth elements (REEs) and transition minerals are essential for renewable energy technologies and EVs, such as lithium batteries and battery energy storage systems (BESS). Demand for these minerals is expected to surge over the next two decades, with clean energy technologies expected to drive over 40% of copper and REE demand, 60%-70% of nickel and cobalt demand, and nearly 90% of lithium demand. By 2040, EVs and battery storage are expected to dominate lithium

consumption, surpassing stainless steel as the primary end-user of nickel.<sup>38</sup> While REE mining is vital to the energy transition, it must be carefully managed to avoid adverse impacts. Unregulated mining risks environmental degradation, deforestation in environmentally sensitive areas (ESAs), and disruption of Indigenous Peoples' culture and livelihoods, whose land may overlap with mining sites.

## Carbon Offsets and Credits

Carbon offsets represent actions or projects that reduce or remove carbon emissions, such as reforestation, renewable energy projects, carbon-storing agricultural practices, and waste and landfill management.<sup>39</sup> Carbon credits, on the other hand, are tradable certificates that quantify the reductions achieved by these offset projects, allowing businesses to purchase them to compensate for their own emissions.

Carbon credits are particularly relevant for hard-to-abate sectors like steel, cement, and oil & gas, but are also used by businesses and organisations to meet voluntary carbon reduction commitments. However, the carbon market faces significant challenges due to unclear requirements,

including issues of double counting, additionality, credibility, permanence, corruption, and human rights violations. These problems are exacerbated by a lack of regulation, inconsistent compliance standards, and limited verifiability.<sup>40</sup>

For example, while the Bursa Carbon Exchange (BCX) relies on credits certified by Verra—the world's largest carbon credit certifier—investigations in 2023 revealed that up to 90% of Verra's rainforest carbon offsets lacked credibility.<sup>41 42</sup> The United Nations Environment Programme (UNEP) stresses that carbon offsets should serve as a temporary measure, used only to accelerate climate action before 2030.<sup>43</sup>

## Renewable Energy Certificates (RECs)

While carbon credits represent the reduction of one tonne of carbon dioxide equivalent (tCO<sub>2</sub>e), renewable energy certificates (RECs) signify the environmental attributes of electricity generated from renewable sources. Each REC corresponds to one megawatt-hour (MWh) of renewable electricity, whereas each carbon credit reflects one tonne of avoided or removed greenhouse gases.<sup>44</sup>

In 2019, RECs were introduced in Peninsular Malaysia and Sarawak to certify one MWh of renewable energy generation, promoting renewable energy adoption and enabling businesses to reduce scope 2 emissions.<sup>45</sup> In

June 2024, Bursa Malaysia Bhd's subsidiary, BCX, held its first auction of hydropower RECs, sourced from the Murum Hydroelectric Plant in Sarawak.<sup>46</sup> However, the construction of the Murum Hydroelectric Dam allegedly violated Free, Prior, and Informed Consent (FPIC) principles, as construction began before engaging Indigenous communities. Despite these concerns, Bursa Malaysia clarified that the RECs were certified by the I-REC Standard, a global benchmark for RECs.



## JET-BHR Recommendations

This recommendations table is structured around the UNGPs’ two pillars: **Protect and Respect**.

### For government - PROTECT

RECOMMENDATION	GUIDING NOTE
<p><b>1</b></p> <p><b>Addressing Fossil Fuel Infrastructure</b></p> <p>Secure international financial support, prioritising grants over loans, to facilitate the early retirement of coal-fired power plants. Ensure funding terms are thoroughly evaluated to safeguard national interests over those of the funder.</p> <p><b>Line ministries:</b> PETRA, MOE, NRES, MOF, MOFA</p> <hr/> <p>Assess the feasibility of reducing the reliance on natural gas as a transition fuel under the NETR, balancing rapid GHG reductions with domestic natural gas availability to ensure energy security. Implement a staged phase-down of new oil and gas exploration to meet the urgent greenhouse gas (GHG) reduction targets for 2030.</p> <p><b>Line ministries:</b> PETRA, MOF, MOE, MITI</p>	<p>The ILO’s <i>Just Transition Guidelines (2015)</i> urge governments to prioritise industries, regions, communities, and workers most affected by the transition, in consultation with stakeholders.</p> <p>Articles 2 and 9 of the <i>UNFCCC Paris Agreement</i> require developed countries to provide financial assistance to developing countries for climate mitigation and adaptation, in accordance with the principles of CBDR-RC.</p> <hr/> <p>The IPCC’s AR6 report warns that GHG emissions from nationally determined contributions (NDCs) announced before COP26 could exceed the 1.5°C limit, making it harder to stay within 2°C after 2030. To remain below 2°C, about 80% of coal, 50% of gas, and 30% of oil reserves must remain unburned, with even more reserves left untapped to limit warming to 1.5°C.</p>
<p><b>2</b></p> <p><b>Renewable energy and technology related sectors</b></p> <p>Establish a robust mechanism for the sustainable lifecycle management of solar PV panels<sup>47</sup> and batteries used in battery energy storage systems (BESS). Invest in R&amp;D of environmentally friendly materials and chemicals for solar panel production.</p> <p><b>Line ministries:</b> NRES, PETRA, SEDA, MITI</p> <hr/> <p>Conduct thorough cost-benefit and independent technical analyses to evaluate the feasibility of contentious technologies, such as CCS, CCUS, hydrogen and ammonia co-firing, and waste-to-energy (WTE) plants. The Precautionary Principle should guide these evaluations, ensuring that all technologies deployed in the energy transition are scientifically validated and cause no significant harm.<sup>49</sup> For CCUS specifically, the London Protocol,<sup>50</sup> an international agreement regulating the transportation and storage of carbon dioxide (CO<sub>2</sub>) for carbon capture and storage activities, must be considered in Malaysia’s CCUS planning to ensure compliance with global standards.</p> <p><b>Line ministries:</b> PETRA, MOSTI, MOF, MOE</p>	<p>The IPCC’s AR6 identifies the circular economy as a key strategy for GHG mitigation, noting strong synergies between climate mitigation, biodiversity conservation, and efficient material use, while emphasising that trade-offs depend on effective policy design.<sup>48</sup></p> <hr/> <p>Article 3(3) of the <i>UNFCCC</i><sup>51</sup> enshrines the precautionary principle, urging Parties to act to prevent or minimise climate change and its impacts, even without full scientific certainty, particularly when facing serious or irreversible damage.</p>

## RECOMMENDATION

## GUIDING NOTE

Prioritise the electrification and improvement of public transport, including buses, with a focus on bridging the urban-rural divide to provide equitable mobility solutions. Simultaneously, conduct a comprehensive study on the lifecycle management of EVs and their components to ensure environmental sustainability and human rights safeguards are integrated. Avoid over-reliance on the private EV industry by strategically balancing its development with public transport investments. Implement a decentralisation strategy to reduce traffic congestion, create economic opportunities beyond major economic zones, and improve overall quality of life.

**Line ministries:** MOT, MOE, MITI, MOF, Ministry of Rural and Regional Development, Ministry of Local Government Development, state governments

Establish no-mining zones to prohibit REE mining in ESAs. Strengthen forestry laws and enforcement to ensure the permanent protection of gazetted forests.

**Line ministries:** NRES, state governments

Amend the Environmental Quality Act 1974 (EQA) to include all REE mining projects, regardless of size, as prescribed activities requiring Environmental Impact Assessments (EIAs) and Social Impact Assessments (SIAs). Further enhance the EIA and SIA processes with the following measures:

- Mandate public availability of EIA and SIA reports for feedback.
- Prohibit project proponents from selecting their own EIA consultants.
- Integrate EIA into the mandatory Human Rights and Environmental Due Diligence (mHREDD) process.
- Ensure meaningful consultation with affected communities in all REE mining projects.

**Line ministries:** NRES, MITI

**SDG Goal 11** focuses on creating sustainable cities and communities by ensuring access to safe, affordable, accessible, and sustainable transport systems for all. It also promotes strengthening national and regional planning to enhance economic, social, and environmental connections between urban, peri-urban, and rural areas.

**The EV Value Chain** in Malaysia's *New Industrial Master Plan 2030 (NIMP)*<sup>52</sup> emphasises managing the end-of-life phase of EVs through battery recycling and second-life applications. Recycling aims to add residual value to batteries at the end of their lifecycle.<sup>53</sup>

Principle 2 of the *Guiding Principles on Critical Energy Transition Minerals*<sup>54</sup> emphasises safeguarding the planet's environment and biodiversity. It aligns with the *Rio Declaration's precautionary approach*, recommending best practices for critical mineral mining that protect ecosystems.

In Section 2 of the *National Forestry Act 1984 (Act 313)*,<sup>55</sup> rare earth-based mineral resources are not defined as forest products, therefore they cannot be excavated from the permanent reserved forest (PRF) area.

Principle 2 of the *Guiding Principles on Critical Energy Transition Minerals* requires that environmental, social, and cultural risks be assessed prior to any activity and throughout its duration. These risks must be managed, monitored, and addressed using the mitigation hierarchy across the mineral lifecycle and value chain.

Principle 4 calls for specific measures to ensure that Indigenous Peoples and other rights holders with ancestral ties and land rights are recognised as equal partners. It emphasises equitable benefit-sharing schemes that align with their right to self-determination.

## RECOMMENDATION

## GUIDING NOTE

Incorporate the principles of the UNGPs and the *UN Principles to Guide Critical Energy Transition Minerals Towards Equity and Justice* into the *National Mineral Policy 3*. These principles should be used to regulate REE mining activities to address illegal REE mining sites.

**Line ministries:** NRES, PETRA, MITI

## 3

**Strengthening the Oversight of Carbon credit and REC schemes**

**Develop Comprehensive Compliance Regulations**

Establish robust regulations for the voluntary carbon market, grounded in independent scientific evidence and informed by consultations with businesses, academia, civil society organisations (CSOs), and Indigenous Peoples.

**Enhance Market Integrity**

Introduce oversight regulations or guidelines incorporating BHR principles to improve the integrity and effectiveness of the carbon market.

**Address Greenwashing**

Implement enforceable greenwashing standards and fraud-related offences within private sector compliance programmes to prevent misleading environmental claims.

**Line ministries:** NRES, PETRA, MOF, MOE, MITI

The United Nations Office on Drugs and Crime (UNODC) and World Bank's draft report, *Addressing Corruption Risks to Safeguard the Response to Climate Change*,<sup>40</sup> highlights corruption risks in compliance and voluntary carbon markets and underscores the need for oversight regulations to enhance market integrity.

**For business - RESPECT**

RECOMMENDATION	GUIDING NOTE
<p><b>1</b></p> <p><b>Addressing Fossil Fuel Infrastructure</b></p> <p>Fossil fuel-dependent businesses, including coal-fired power generators and those exploring new oil and gas fields, should develop plans for an orderly phase-down aligned with Just Energy Transition and Business and Human Rights (JET-BHR) principles.</p>	<p>Regional financial institutions such as CIMB Bank have announced that it would stop financing new oil field projects beyond those committed as of 2021.<sup>56</sup></p>
<p><b>2</b></p> <p><b>Renewable energy and technology related sectors</b></p> <p>Solar energy providers should adopt circularity principles<sup>47</sup> and establish robust standard operating procedures (SOPs) for the sustainable lifecycle management of solar PV panels and batteries used in battery energy storage systems (BESS). Sustainability must be upheld as a fundamental standard in the renewable energy sector.</p> <hr/> <p>Solar energy firms must mitigate labour rights risks, including forced labour and excessive work hours, by complying with national labour laws and adhering to international and industry standards for all workers, both local and migrant.</p> <hr/> <p>Businesses should deprioritise and disincentivise investment in contentious technologies such as CCS, CCUS, hydrogen and ammonia co-firing, and WTE plants. If such technologies are pursued, require independent cost-benefit analyses conducted by impartial bodies with transparent disclosure of research funding, especially if financed by the fossil fuel industry. These analyses must incorporate human rights assessments using specific protocols to evaluate potential impacts, with findings made publicly accessible. Implement strict regulations, preventive measures, or moratoriums if significant negative impacts are identified.</p> <hr/> <p>Businesses planning to integrate EVs into their operations must conduct thorough due diligence on EV providers. EVs should only be utilised if:</p> <ul style="list-style-type: none"> <li>• The provider’s entire supply chain complies with business and human rights principles.</li> <li>• The EV fleet is powered by renewable energy.</li> </ul>	<p>The IPCC’s AR6 identifies circular economy as an appropriate strategy for GHG mitigation.</p> <hr/> <p>The NBABHR recommends that businesses conduct regular, genuine, effective, and transparent human rights due diligence (HRDD) assessments to identify, prevent, and mitigate the negative impacts of exploitative labour practices within their operations and supply chains.<sup>57</sup></p> <hr/> <p>Agenda Items 3 and 5 of the UNGA Human Rights Council’s 54th session report, <i>Impact of New Technologies Intended for Climate Protection on the Enjoyment of Human Rights</i>, emphasised that human rights standards and obligations must apply to all climate mitigation technologies. A precautionary approach should be taken where scientific uncertainty or risks of serious or irreversible environmental and human harm exist.<sup>49</sup></p> <hr/> <p>UNEP’s <i>Global Resource Outlook 2024</i> advises prioritising low-carbon transport solutions, such as smaller vehicles, low-impact materials, and energy-efficient designs, to minimise resource demand and environmental impact across the passenger car lifecycle.</p>

RECOMMENDATION	GUIDING NOTE
<p><b>3</b></p> <p><b>Carbon credit &amp; RECs</b></p> <p>Carbon offsets should only be used as a temporary measure to meet emissions targets, explicitly stating this in net-zero commitments. Align with the Institute of Environmental Management and Assessment’s (IEMA)’s GHG Management Hierarchy, which prioritises emissions avoidance and ranks carbon credits as the least preferred option.</p> <hr/> <p>Businesses incorporating carbon offsets in their net-zero strategies must conduct mHREDD on both the offset provider and the certifier. Ensure all publicly released information about carbon offsets is accurate, transparent, and free from greenwashing or transition washing.</p>	<p>IEMA’s GHG emissions management hierarchy consists of four levels: eliminate, reduce, substitute, and compensate, with the compensate level referring to the carbon market.</p> <hr/> <p>Principles 11 and 12 of the UNGPs, under <i>The Corporate Responsibility to Respect Human Rights</i>, require businesses to respect internationally recognised human rights, avoid infringements, and address violations within their operations.</p>







## 5.3 Enterprise Policies

The *ILO Just Energy Transition Guidelines* call for an enabling environment to foster sustainable businesses, including the adoption of ESG (Environmental, Social, and Governance) principles. Growing awareness of the connection

between sustainability and energy transition has driven an increase in the number of companies implementing corporate sustainability measures.

### Sustainability standards and reporting frameworks

In Malaysia, the terms “ESG” and “sustainability” are used interchangeably.<sup>58</sup> There are several ESG reporting frameworks and standards, each with its own scope, methodology, and indicators. Widely-used ESG standards and reporting frameworks include Task Force on Climate-Related Financial Disclosures (TCFD), Sustainable Development Goals (SDGs), and International Sustainability Standards Board (ISSB).<sup>59</sup>

Larger companies, such as CIMB Group Holdings Bhd (CIMB), have implemented their own human rights policy. According to Gabriel Chong, director, CIMB Group, every big project they finance goes through a human rights risk assessment which includes FPIC when there are local communities involved. It is done across business units and across sectors with consideration of emerging risks in new sectors.

Companies in Peninsular Malaysia with operations abroad will need to prepare for the increased requirement of mHREDD as regional standards such as the European Union’s (EU’s) Corporate Sustainability Due Diligence Directive (CSDDD) are imposed on EU and non-EU companies with presence in the EU, as well as their suppliers. EU and non-EU companies, depending on the company size, based on turnover and number of employees, will have three to five years to comply with the directive, with the earliest being by 2027.<sup>60</sup>

In Malaysia, the Securities Commission (SC) announced in 2024 that companies listed on Bursa Malaysia’s Main Market and ACE Market, and large non-listed companies with annual revenues of RM2 billion or more, must adopt the National Sustainability Reporting Framework (NSRF) in phases beginning in 2025. Requirements include compliance with IFRS S1 and IFRS S2,<sup>61</sup> focusing on climate disclosures, with the first reports due in 2026. Compliance will expand to other Main Market issuers in 2026, and to ACE Market-listed companies and large non-listed firms in 2027.<sup>62</sup>

IFRS S2 mandates the disclosure of Scope 3 emissions, encompassing indirect emissions from downstream activities such as supply

chain emissions from purchased materials (e.g., outsourced manufacturing) and emissions generated by the use of the company’s products by consumers and buyers, a practice many companies have yet to adopt.<sup>63</sup>

Regulatory authorities have raised expectations for public-listed and large companies to adopt ESG and climate-related disclosures, a trend likely to extend to SMEs but they face barriers such as cost, time constraints, and lack of training and capacity-building. Meanwhile, RE availability remains insufficient to meet private sector demand, with Peninsular Malaysia’s RE generation share at less than 10% in 2023.<sup>64</sup> To address this, the government introduced CRESS in 2024, enabling RE providers and corporate buyers to arrange green electricity supply through the existing system.<sup>65</sup>



## Transition finance

Finance is critical to Malaysia’s energy transition, with the NETR projecting an investment need of RM1.2 trillion to RM1.3 trillion by 2050, including 18% by 2030 for RE generation and green mobility.<sup>12</sup> Established in 2019, the Joint Committee on Climate Change (JC3), co-chaired by Bank Negara Malaysia (BNM) and the SC, includes Bursa Malaysia and 21 financial institutions.<sup>66</sup> JC3 addresses climate-related risks in the financial sector, facilitates stakeholder collaboration, and develops solutions to manage risks and support the transition to a low-carbon economy.

The government has implemented various schemes to support the private sector’s energy transition, but the focus must now shift to strengthening these programmes to ensure a just and equitable transition. The UNGPs were endorsed by the Human Rights Council more than a decade ago in 2011 but is now seeing uptake among some of Malaysia’s largest companies such as PETRONAS<sup>67</sup> and CIMB.<sup>68</sup>

The growing adoption of sustainability standards, reporting frameworks, and net-zero commitments by businesses has raised concerns about the robustness and validity of the disclosures and pledges. While there are sustainability audits, the audits only check the data that has been disclosed; the company’s strategies do not come under the audit’s scope. As for greenwashing, most are hard to verify but others are easier to detect. For example, if a company pledges to go net-zero but then invests in projects that are fossil fuel intensive, that’s a clear example of greenwash, said a representative from a business coalition. The absence of clear standards for energy transition projects has raised concerns about “transition-washing,” akin to “greenwashing,” where businesses exaggerate or misrepresent their sustainability or climate commitments.<sup>69</sup>



RECOMMENDATION	GUIDING NOTE
<p><b>3</b></p> <p><b>Expanding Green Tax Incentives</b></p> <p>Extend tax incentives, including the Green Investment Tax Allowance (GITA) and Green Income Tax Exemption (GITE), to broader green economy initiatives, such as circularity frameworks like EPR and the adoption of environmentally friendly chemicals based on international standards.</p> <p><b>Line ministries:</b> MOF, MOE, MITI</p>	<p>The ILO’s <i>Just Transition Guidelines (2015)</i> advocate for states to provide financial incentives (grants, low-interest loans and tax incentives) for businesses adopting environmentally sound practices, in line with economic and social sustainability.</p>

**For business - RESPECT**

RECOMMENDATION	GUIDING NOTE
<p><b>1</b></p> <p><b>Supporting Sustainability in Supply Chains</b></p> <p>Large businesses and multinationals should assist suppliers and vendors in adopting sustainable practices and reporting frameworks by providing capacity-building training. This ensures alignment across the supply chain and advances meaningful progress towards sustainability goals.</p> <hr/> <p>Businesses adopting sustainability standards should define and embed environmental human rights into their operations. They must establish a human rights charter aligned with international standards, such as the UNGPs, endorsed by top management and guided by expert advice.</p> <hr/> <p>SMEs and MSMEs should participate in sustainability upskilling programmes offered by government ministries, agencies like JC3, and private sector initiatives. Businesses can also utilise resources such as MITI’s National Industry ESG Framework (i-ESG)<sup>70</sup> and Capital Markets Malaysia’s Simplified ESG Disclosure Guide (SEDG) for guidance.<sup>71</sup></p>	<p>According to the ILO’s <i>Just Transition Guidelines (2015)</i>, greening all enterprises and jobs by introducing more energy and resource efficient practices, avoiding pollution and managing natural resources sustainably leads to innovation, enhances resilience and generates savings which drive new investment and employment.</p> <hr/> <p>Principles 11 and 12 of the UNGPs, II. <i>The Corporate Responsibility to Respect Human Rights</i> require businesses to respect internationally recognised human rights, avoid infringements, and address violations within their operations.</p> <hr/> <p>Under the JC3, the SME Focus Group was established with the objective of raising awareness, reducing the cost of transition for SMEs, facilitating green certification, and improving disclosures by SMEs.<sup>72</sup></p>
<p><b>2</b></p> <p><b>Finance and incentives</b></p> <p>Financial institutions should prioritise funding renewable energy adoption and sustainable practices while phasing out support for fossil fuel industries. SMEs and MSMEs are encouraged to utilise government incentives to drive energy transition and green business initiatives.</p>	<p>Under the JC3, one of the priority areas under Sub-committee 3: Product &amp; Innovation, is scaling up green and transition finance solutions and rolling out green pilot projects, such as the Greening Value Chain (GVC) pilot.<sup>72</sup></p>



## 5.4 Strong governance and institutional arrangement in energy transition

The energy transition requires collaboration among various stakeholders, with Ministry of Energy Transition and Water Transformation (PETRA) as the lead ministry overseeing its implementation. The NETR was developed through consultations with 14 ministries, four governmental bodies, and two government-linked companies (GLCs). However, managing such complexity poses significant governance challenges, including bureaucratic inefficiencies, inter-ministerial conflicts, jurisdictional overlaps between federal and state governments, policy inconsistencies, and limited transparency, information sharing, and public participation. This research highlights the need for a transparent public procurement mechanism to ensure energy transition projects uphold good governance standards and remain free from corruption and nepotism. The anticipated Government Procurement Bill, expected in 2025, will be pivotal in addressing these concerns.

Another key challenge is political stability. Between 2018 and 2022, Malaysia experienced three government changes, with three prime ministers and administrations in four years,<sup>73</sup> disrupting policy continuity. Securing bipartisan support for the Climate Change Act is essential to ensure long-term policy consistency, as the net-zero 2050 target must transcend individual administrations and ministers.<sup>74</sup>

A robust system of checks and balances with active public participation is essential for achieving a just energy transition in Peninsular Malaysia. As the public sector leads this energy transition, mechanisms must be in place for citizens to provide feedback or report misconduct and maladministration. While other institutional mechanisms such as SUHAKAM, Malaysia's independent national human rights institution, receives complaints on business and human rights issues, it lacks enforcement powers.<sup>57</sup> Thus, establishing an independent national ombudsman system would provide a platform for citizens to report governance issues and business-related human rights violations effectively.<sup>75</sup> An ombudsman is an independent and impartial official appointed to investigate and address complaints or concerns raised by individuals or groups regarding the actions, decisions, or policies of a particular government body. The role of an ombudsman varies depending on the jurisdiction and the organisation they serve<sup>76</sup> but is characterised by its focus on conciliation. Unlike judicial or quasi-judicial bodies, an ombudsman focuses on conciliation, working collaboratively with all parties to mediate and resolve complaints through compromise and mutual understanding.

Malaysia currently has two Ombudsman-like institutions: the Public Complaints Bureau (PCB) and the Enforcement Agencies Integrity Commission (EAIC). The PCB takes a non-enforcement approach, placing the responsibility on government departments to resolve complaints and establish best practices. It serves as a monitoring body to ensure maladministration cases are addressed appropriately by government entities.<sup>77</sup> The EAIC investigates misconduct by officers from enforcement agencies, such as the Immigration Department and the Royal Customs Department. Following an investigation, it can refer findings to the relevant disciplinary authority or the Public Prosecutor for further action,<sup>78</sup> but it lacks enforcement powers, serving only an investigative role. The Ombudsman Malaysia Bill, expected to be tabled in Parliament in 2025,<sup>79</sup> aims to combine the functions of the PCB and EAIC,<sup>80</sup> creating a more comprehensive Ombudsman framework for addressing complaints and misconduct in Malaysia.

“A Malaysian Ombudsman office that is established in accordance with international best practice can act as an independent body to receive and address complaints related to the federal public service delivery system, particularly those related to the energy transition but this will only be effective if there is already an energy transition or just energy transition framework in place”, explains Prishanth Linggaraj, policy and legal research officer of the Center to Combat Corruption and Cronyism (C4 Center). Given that Ombudsman offices primarily seek to investigate maladministration, there must be a basis for the Ombudsman to intervene in the first place. Unlike a national human rights institution, Ombudsman offices do not generally review complaints from a broader rights-based perspective. Having a national policy or framework on just energy transition would create a baseline against which the Ombudsman can evaluate compliance with those principles by the government when there are complaints.

The proposed Ombudsman office should include oversight of GLCs and, if established at the federal level, incorporate mechanisms to recommend actions to state governments and local authorities, respecting constitutional jurisdictional boundaries. While not a standalone solution, a Malaysian Ombudsman would enhance accountability and encourage greater public participation in the energy transition.



## JET-BHR Recommendations

This recommendations table is structured around the UNGPs’ two pillars: **Protect and Respect**.

### For government - PROTECT

RECOMMENDATION	GUIDING NOTE
<p><b>1</b></p> <p><b>Energy Transition Governance</b></p> <p>Establish legal and regulatory frameworks related to just energy transition with BHR such as:</p> <ul style="list-style-type: none"> <li>• Developing a framework on just energy transition guided by BHR approaches.</li> <li>• Embedding provisions related to just energy transition with BHR in the Climate Change Bill.</li> <li>• Embedding provisions related to just energy transition with BHR in every action plan and roadmap related to the energy transition and climate change.</li> <li>• Introducing just energy transition and BHR reporting requirements for GLCs and private sector companies involved with government-led energy transition projects.</li> </ul> <p><b>Line ministries:</b> NRES, PETRA, BHEUU</p> <hr/> <p>Strengthen the government procurement process by:</p> <ul style="list-style-type: none"> <li>• Enacting and enforcing a Government Procurement Act to address compliance and governance risks.</li> <li>• Mandating adherence to human rights standards as a key criterion for vendor selection.</li> <li>• Advancing Malaysia’s accession to the World Trade Organization (WTO) Agreement on Government Procurement, building on its current observer status.</li> </ul> <p><b>Line ministries:</b> NRES, PETRA, BHEUU</p> <hr/> <p>Incorporate Just Energy Transition principles aligned with BHR into the framework of the proposed Malaysian Ombudsman office. Provide targeted training for public servants to ensure effective implementation of these principles.</p> <p><b>Line ministry:</b> BHEUU</p>	<p>The <i>ILO’s Just Transition Guidelines (2015)</i> emphasise the need for coordinated policies across economic, environmental, social, education, and labour sectors to create an enabling environment for businesses, workers, investors, and consumers, fostering sustainable and inclusive economies and societies.</p> <p>Under the UNGPs, I. <i>The State Duty to Protect Human Rights</i>, Principle 5 obliges governments to exercise sufficient oversight to ensure they meet their human rights obligations when engaging in contracts or enacting legislation involving businesses that may affect human rights. Principle 6 encourages governments to uphold respect for human rights in their commercial dealings with business enterprises.</p> <p>Principle 25 of the UNGPs, III <i>Access to Remedy</i> calls on states to ensure victims of business-related human rights abuses have access to remedies through judicial, administrative, or legislative.</p>
<p><b>2</b></p> <p><b>Access to information and public participation</b></p> <p>Establish the National Energy Knowledge Hub under NETR as a platform for public feedback and information sharing. Facilitate regular and inclusive consultations with all stakeholders to ensure ongoing engagement in the energy transition process.</p> <p><b>Line ministries:</b> MOE, PETRA, NRES, MOE</p>	<p>The <i>ILO’s Just Transition Guidelines (2015)</i> emphasise social dialogue as a core principle, The <i>United Nations Economic Commission for Europe’s (UNECE’s) Aarhus Convention</i>,<sup>81</sup> Article 4, obliges the state to provide access to environmental information to the public in an accessible manner.</p>

**For business - RESPECT**

RECOMMENDATION	GUIDING NOTE
<p><b>1</b> <b>Transparency in Energy Transition Projects</b></p> <p>GLCs and private sector companies involved in government-led energy transition projects should adopt good governance principles aligned with BHR. These principles should be enforced among business partners, suppliers, and vendors through contractual obligations. Additionally, businesses should ensure transparency by publishing regular, accessible updates on project progress to foster accountability and stakeholder trust.</p>	<p>Principle 16 of the UNGPs, under <i>The Corporate Responsibility to Respect Human Rights</i> advises businesses to express their commitment to respecting human rights through publicly available policy commitments, communicated effectively both internally and externally.</p>

**Access to Remedy**

*This recommendations table is structured around the UNGPs’ third pillar: Access to Remedy, and applies across all subchapters in Chapter 5.*

FOR GOVERNMENT	GUIDING NOTE
<p><b>1</b></p> <p>Establish and standardise formal grievance mechanisms for businesses across all key sectors, accompanied by sector-specific guidance on effective grievance and remediation criteria. Require all energy transition projects, including renewable energy initiatives, to implement robust grievance mechanisms and whistleblower protections.</p> <p><b>Line ministries:</b> PETRA, NRES, MITI, MOF, MOE, Ministry of Entrepreneur Development and Cooperatives</p>	<p>Principle 25 of the UNGPs, III <i>Access to Remedy</i> calls on states to ensure victims of business-related human rights abuses have access to remedies through judicial, administrative, or legislative.</p>

FOR BUSINESS	GUIDING NOTE
<p><b>1</b></p> <p>Develop accessible internal grievance mechanisms for employees and external mechanisms for stakeholders across all business operations. Ensure these mechanisms are integrated into energy transition projects, including renewable energy initiatives, fossil fuel plant retirements, and REE mining activities.</p>	<p>Principle 15(c) of the UNGPs, II. <i>The Corporate Responsibility to Respect Human Rights</i> requires businesses to have in place processes that enable the remediation of any human rights violations.</p>



# 06 Labour Rights



The ILO's **Decent Work Agenda**, a foundation of its **Just Transition Guidelines**, is built on four pillars: employment, rights at work, social protection, and social dialogue. Decent work ensures fair income, workplace security, social protection, opportunities for personal development and social integration, freedom to voice concerns and participate in decision-making, and equality of opportunity and treatment for all.<sup>82</sup> However, reskilling and upskilling the workforce will be a significant challenge, especially for SMEs and smaller businesses. While employers are increasingly aware of the energy transition through government engagement and sustainability reporting, this awareness may not extend equally to employees.

There is minimum to no awareness on the just energy transition among trade unions, which is not surprising considering unionisation rates are very low and have demonstrated poor impact in the country, said Adrian Pereira, executive director of North-South Initiative. According to the Department of Trade Union Affairs, Malaysia had 756 trade unions in 2023 with over 1 million members. More than half belonged to public service trade unions, while slightly over a third were

part of private sector unions. Of the 756 unions, only 17 have migrant workers as members, which means migrants are grossly underrepresented in just transition discourses. In total, around 34,000 out of the roughly 2 million migrant workers are union members in Malaysia.<sup>83</sup> If unions are weak and disorganised, they would hesitate to talk about global issues such as a just energy transition as they don't have the leadership nor capacity to initiate, Adrian added.

In 2023, the government amended the Trade Union Act to permit multiple unions within the same industry or trade.<sup>84</sup> This may further strengthen Malaysia's labour landscape towards workers' rights, however, ongoing challenges such as forced labour, worker trafficking, collective bargaining, and workplace safety must be proactively addressed while preparing for the labour impacts of the energy transition.

## 6.1 Skills development and job creation

A just and equitable energy transition requires not only retraining and transitioning workers from fossil fuel industries to renewable energy but also ensuring the energy sector prioritises public investment and provides **high-quality jobs**. Transitioning to a low-carbon economy involves preparing workers in legacy fossil fuel industries for new green industries, such as renewable energy, which the **NETR** estimates will generate approximately **310,000 green jobs by 2050** (260,000 by 2030; 360,000 by 2040). However, it is equally important that these green jobs are high quality jobs that provide decent work and decent pay. The government should prioritise equitable access to essential public goods by strengthening the regulation of public-private partnerships and re-nationalising sectors where privatisation has caused inefficiencies or inequities and align with the UNGPs to ensure sustainability and transparency. In 2023, Malaysia's workforce comprised **16.4 million workers, with a labour force participation rate of 70% and an unemployment rate of 3.4%**. Workforce participation was significantly higher among men (**82.3%**) than women (**56.2%**),<sup>85</sup> highlighting the importance of ensuring gender responsiveness and addressing disparities in preparing for an inclusive workforce for green jobs.

Workers in fossil fuel industries like coal, oil & gas, steel, and cement, along with their supply chains and related sectors such as transportation, ICE automotive, chemicals, construction, services, and agriculture, are most at risk from the energy transition. Job creation in green industries may not fully offset losses in fossil fuel-dependent sectors, with disparities in geographic location and skill transferability. Many workers may require reskilling, as some existing skills are not transferable, and there is a risk of new green jobs being low-wage and low-skill, falling short of the **ILO's Decent Work Agenda** which calls for jobs that provide fair wages, workplace safety, and opportunities for growth.

Reskilling and upskilling are essential to enable workers in affected industries to transition into green sectors within a low-carbon economy. The energy transition will demand skilled workers in technical fields such as BESS, EVs, and low-emissions hydrogen. Technical and vocational education and training (**TVET**) programmes can meet this demand by developing targeted green skills initiatives, supporting the goals of the **NETR**.

Despite its potential, current reskilling and upskilling initiatives need significant improvement. While budgets are being allocated for human resource development, CSO stakeholders agree

that existing programmes often fail to meet industry needs, are superficial, lack variety, or are underutilised due to poor governance and accountability in national training programmes. Strengthening these programmes is crucial to equipping the workforce for the demands of the energy transition.

Currently, there is no baseline assessing how the energy transition will impact all workers, beyond those in fossil fuel-related industries. As most of the economy relies on fossil fuels, the transition will affect every sector and worker category—professional, skilled, semi-skilled, low-wage and informal, including domestic workers. Given these challenges, education is critical in preparing today's students to become a well-equipped and adaptable workforce for the green economy.

Reskilling and education policies must align with efforts to create high quality jobs that appeal to both the current and future workforce. Hakim Albasrawy, formerly of Sols Energy, admits that income-wise, working in the solar energy industry will not be equal to the income of those who work in the oil and gas industry, even though it is a so-called "sunset industry". Additionally, many green jobs, such as rooftop solar installation and solar-powered groundwater pump, are labour-intensive and primarily conducted outdoors, which may affect their attractiveness.

## JET-BHR Recommendations

This recommendations table is structured around the UNGPs' two pillars: **Protect and Respect**.

### For government - PROTECT

RECOMMENDATION	GUIDING NOTE
<p><b>1</b></p> <p><b>Nationwide assessment of impact of the energy transition on the workforce</b></p> <p>Conduct a comprehensive assessment of the energy transition's impact across all sectors, recognising the pervasive dependence on fossil fuels throughout the economy. Prioritise sectors most directly affected while simultaneously addressing broader systemic challenges to ensure an inclusive and equitable transition.</p> <p>The study should analyse workforce impacts across all sectors, identify existing and emerging challenges, and develop strategies to ensure decent work and safeguard labour rights. It should explore opportunities for creating high-quality jobs that align with sustainable development goals and promote equitable economic growth.</p> <p>This includes decentralising employment from major economic centres by bringing economic opportunities to underdeveloped regions, fostering inclusive growth, and addressing regional disparities. Decentralisation must be supported by investments in infrastructure, skill development, and access to social protections to ensure alignment with ILO principles and a just transition framework.</p> <p><b>Line ministries:</b> MOHR, PETRA, NRES, MOE</p>	<p>The <i>ILO's Just Transition Guidelines (2015)</i> emphasise coherent policies to create decent jobs, including employment impact anticipation, sustainable social protection, skills development, and social dialogue.</p>
<p><b>2</b></p> <p><b>Skills development and education</b></p> <p>Review skills development policies to ensure they support training, capacity building and curricula relevant to the energy transition.</p> <p><b>Line ministries:</b> MOHR, PETRA, NRES, MOHE, HRD Corp, National TVET Council</p> <p>Conduct comprehensive skills assessments, labour market analysis, and core skills development in collaboration with industry and training institutions to align workforce supply with energy transition demands. Resources should address current skills gaps in carbon-intensive sectors to ensure economic stability, minimise workforce displacement, and support the safe decommissioning of fossil fuel infrastructure. Simultaneously, prepare for emerging needs in renewable energy industries such as solar, hydropower, and energy efficiency, ensuring a balanced and equitable transition.</p> <p><b>Line ministries:</b> MOHR, MITI, Ministry of Entrepreneur Development and Cooperatives</p>	<p>Also aligned to the <i>ILO's Just Transition Guidelines (2015)</i>, the <i>IPCC's AR6</i> highlights the importance of realistic training programmes for decent work and gender-specific policies to ensure equitable outcomes.</p>



## RECOMMENDATION

## GUIDING NOTE

Develop nationwide reskilling and upskilling programmes for the energy transition, guided by government assessments and emerging trends, with the following criteria:

- Address both current skill gaps in carbon-intensive industries to minimise workforce displacement and prepare workers for emerging roles in renewable energy.
- Ensure accessibility for marginalised groups, including domestic workers, migrant workers, women, Indigenous Peoples, persons with disabilities (PWDs), and the elderly.
- Prioritise sectors with high employment risks, such as fossil fuels, to support workers' transition and maintain economic stability while fostering an equitable shift to a low-carbon economy.

**Line ministries:** MOHR, PETRA, NRES, MOF, MITI, HRD Corp, National TVET Council

Incentivise SMEs and MSMEs to reskill and upskill employees for the energy transition in a manner that is widely accessible to workers.

**Line ministries:** MOHR, MOF, Ministry of Entrepreneur Development and Cooperatives, Ministry of Communications, Digital Ministry

Develop both **foundational skills** and **specialised skills** in science, technology, engineering, and mathematics (STEM), integrating them into curricula for basic training and lifelong learning to ensure workforce adaptability to the evolving work landscape.

**Line ministries:** MOHR, MOHE

## For business - RESPECT

RECOMMENDATION	GUIDING NOTE
<p><b>1</b> <b>Skills development and awareness</b></p> <p>Promote reskilling and upskilling awareness across all levels, starting with top management. Offer incentives to encourage engagement and ensure equal opportunities for all employees. Utilise government initiatives to enhance these efforts.</p> <hr/> <p>Develop and implement reskilling and upskilling programmes for employees affected by the energy transition, ensuring alignment with organisational capacity, government energy transition guidelines, and international standards such as the UNGPs BHR and ILO Just Transition principles. These programmes should be tailored to meet workers' specific needs, uphold their rights, and prioritise equitable access, particularly for vulnerable groups, to foster a just and inclusive transition.</p>	<p>Also aligned to the ILO's <i>Just Transition Guidelines (2015)</i>, the IPCC's AR6 highlights the importance of realistic training programmes for decent work and gender-specific policies to ensure equitable outcomes.</p>
<p><b>2</b> <b>Social dialogue</b></p> <p>Engage with existing trade unions to create awareness on the energy transition and discuss skill development from the energy transition with employees.</p>	<p>The ILO's <i>Just Transition Guidelines (2015)</i> emphasise coherent policies to promote the effective exercise of the right to organise and bargaining collectively.</p>
<p><b>3</b> <b>Job creation</b></p> <p>Businesses pursuing opportunities in the green economy must ensure that the green jobs they create meet the following standards:</p> <ul style="list-style-type: none"> <li>• Provide decent pay and fair working conditions.</li> <li>• Uphold workplace safety and ensure compliance with labour standards.</li> <li>• Guarantee non-discrimination based on gender or any other characteristic.</li> <li>• Offer clear pathways for career progression to support long-term employee growth.</li> </ul>	<p>Recommendation 1 from the International Energy Agency's (IEA)'s <i>Recommendations of the Global Commission on People-Centred Clean Energy Transitions</i><sup>36</sup> advocates designing the energy transition to maximise decent job creation.</p>

## 6.2 Occupational Safety & Health (OSH)

Occupational Safety & Health (OSH) is a vital aspect of decent work and sustainable development. In Malaysia, strong heat waves pose health risks to workers, particularly those that spend most of their time outdoors such as rooftop solar installers, agricultural workers, fishermen, construction workers, e-hailing and p-hailing drivers, and outdoor food vendors. For rooftop solar installers, Hakim describes situations during heat waves where workers had to work in “shoe-melting temperatures.”

In 2016, the Department of Safety and Health (DOSH) introduced the Guidelines on Heat Stress Management at the Workplace, providing OSH practitioners, or Competent Persons (OYK), with guidance on recognising, estimating, preventing, and treating heat stress. This is particularly crucial as Malaysia has seen a four-fold increase in heat wave frequency since the 1960s.<sup>87</sup> Occupational safety and health standards in Malaysia are enforced by DOSH and set by the National Institute of Occupational Safety and Health (NIOSH), both under the Ministry of Human Resources (MOHR).

Building on this, OSH legislation and guidelines must be reviewed and updated to address the challenges posed by the energy transition and the increasing frequency of climate-driven weather

events. For example, in the solar energy sector, workers face risks from handling toxic materials like lead and cadmium<sup>88</sup> during the production and recycling of solar panels. Globally, the EV and transition mineral industries raise significant concerns, particularly unsafe and informal working conditions in cobalt mining for lithium battery production. Both artisanal and small-scale mining for cobalt in the Democratic Republic of Congo (DRC) and illegal REE in Malaysia share similar violations, lack of oversight, and inadequate safety measures, posing significant risks to both workers and the environment. In the DRC, artisanal and small-scale mining of cobalt often occurs in unregulated settings, exposing miners—many of whom lack proper training or protective equipment—to hazardous working conditions, toxic materials, and unstable mining sites. Similarly, illegal REE in Malaysia has taken place in protected areas such as forest reserves, with unauthorised operators exploiting resources without adherence to environmental or safety standards. These activities, such as those uncovered in Perak, Kedah, and other states, often lead to severe environmental degradation, including deforestation and soil contamination.

### Case Study 1: Illegal mining of rare earth elements (REEs)

In March 2024, it was reported that approximately 16,000 tonnes of rare earth oxides were illegally mined across five Malaysian states and exported to China. These operations were primarily located in forest reserves in Sik (Kedah), Lipis (Pahang), Pengkalan Hulu and Kuala Kangsar (Perak), and on private lands in Meranti and Jelebu districts (Negeri Sembilan). Such unauthorised mining activities have raised concerns about environmental damage, safety and health conditions of the workers.<sup>89</sup> In December 2023, Malaysian authorities arrested 31 individuals, including 21 foreigners, for suspected illegal REE mining in the Bintang Hijau Forest Reserve, Hulu Perak. This operation underscores the government’s commitment to curbing unauthorised mining activities.<sup>90</sup> Additionally, in July 2023, the Malaysian Anti-Corruption Commission (MACC) detained a senior officer from the Kedah Menteri Besar Inc and a company director to assist in investigations related to corruption and abuse of power in REE mining activities in Kedah. The alleged bribes involved amounted to over RM13 million.<sup>91</sup>

The Occupational Safety and Health (Amendment) Act 2022<sup>92</sup> introduced significant changes, including expanding workplace coverage to all work sites, empowering workers to leave hazardous environments if employers fail to act, increasing penalties for non-compliance, and mandating the appointment of an occupational health and safety coordinator for companies with five or more employees.<sup>93</sup> In 2024, Malaysia further strengthened OSH regulations by ratifying the ILO Occupational Safety and Health Convention, 1981

(No. 155).<sup>94</sup>

“Malaysia has made commendable strides in ratifying ILO conventions; however, the implementation on the ground presents varied challenges,” said Dr Vivien How, senior lecturer at the Department of Environmental and Occupational Health, Universiti Putra Malaysia (UPM). This variation often depends on the level of proactiveness and commitment exhibited by a

a company’s Occupational Safety and Health Policy. A significant development introduced by the recent Occupational Safety and Health (Amendment) Act 2022 is the shift in accountability, where the responsibility for a company’s OSH now extends beyond to include the employer, employees and safety and health officer (SHO), and other OYK involved.

In emerging areas such as heatwaves and flooding, there may be hesitation among employers to adopt preventive measures, potentially due to a lack of familiarity or perceived cost implications. This further underscores the need for awareness-raising and capacity-building as such climate events will continue to worsen and broaden, and have compounded debilitating impacts on community health.

## JET-BHR Recommendations

This recommendations table is structured around the UNGPs’ two pillars: **Protect and Respect**.

### For government - PROTECT

RECOMMENDATION	GUIDING NOTE
<p><b>1</b></p> <p><b>OSH legislation and guidelines</b></p> <p>Adopt a risk-based planning framework to address increased or emerging OSH risks associated with the energy transition, climate change, resource scarcity, and other risks related to human health and the environment.</p> <p><b>Line ministries:</b> MOHR, NIOSH</p> <hr/> <p>Update OSH codes of practice and guidelines for each sector to address risks associated with climate change and the energy transition. Strengthen these updates by embedding BHR frameworks and aligning them with international labour standards to ensure ethical and rights-based practices across industries such as:</p> <ul style="list-style-type: none"> <li>• Construction</li> <li>• Mining</li> <li>• Plantation and agriculture</li> <li>• Renewable energy</li> <li>• Electric vehicles</li> <li>• Manufacturing</li> <li>• Waste management</li> </ul> <p>Additionally, extend OSH protections to workers in the informal economy, addressing their unique vulnerabilities and ensuring access to ethical and rights-based safety measures.</p> <p><b>Line ministries:</b> MOHR, DOSH</p> <hr/> <p>Integrate OSH training on energy transition and climate change into the Continuous Education Programme (CEP) for OSH practitioners. These courses should address emerging risks and challenges associated with the transition, emphasise mitigation strategies, and align with international labour standards. Ensure the availability and accessibility of these courses, actively promoting them to OSH practitioners and industry stakeholders to enhance capacity and awareness across all sectors.</p> <p><b>Line ministries:</b> MOHR, DOSH</p>	<p>Recommendation No. 164<sup>95</sup> of ILO’s Occupational Safety and Health Convention, 1981 (No. 155)<sup>96</sup> requires members to develop, implement, and periodically review a national OSH policy. This policy, formulated in consultation with employer and worker organisations, aims to prevent work-related accidents and health injuries. It also specifies the inclusion of measures addressing workplace conditions, such as temperature, humidity, and air movement.</p>

RECOMMENDATION	GUIDING NOTE
<p>Regulate and incentivise businesses to minimise and eliminate hazardous materials in supply chains and production processes, prioritising high-risk sectors, SMEs, and MSMEs.</p> <p><b>Line ministries:</b> MOHR, MITI, Ministry of Entrepreneur Development and Cooperatives</p>	<p>The <i>ILO’s Just Transition Guidelines (2015)</i> call on states to offer financial incentives, such as grants, loans, and tax breaks, to businesses adopting environmentally sustainable practices.</p>
<p>Facilitate the establishment of joint OSH committees comprising workers and employers within workplaces.</p> <p><b>Line ministries:</b> MOHR, DOSH</p>	<p>Recommendation No. 164 of the <i>ILO’s Occupational Safety and Health Convention, 1981</i> (No. 155), outlines frameworks for workplace safety and health, emphasising the roles of governments, employers, and workers in fostering a safe and healthy working environment.</p>
<p>Strengthen monitoring and enforcement mechanisms to address OSH non-compliance across sectors.</p> <p><b>Line ministries:</b> MOHR, DOSH</p>	

**For business - RESPECT**

RECOMMENDATION	GUIDING NOTE
<p><b>1</b> <b>OSH legislation and guidelines</b></p> <p>Expand CEP training to include topics related to the energy transition and the effects of climate change on employees, providing OSH practitioners with greater exposure and context on these emerging issues.</p> <p>Continuously monitor and regularly review national policies to ensure effective worker protection.</p> <p>Adopt all recommendations provided by Competent Persons (OYK) following OSH assessments in relevant areas to mitigate risks of non-compliance and workplace accidents.</p> <p>SMEs and MSMEs should utilise HRD Corp schemes to train Safety and Health Officers (SHO) and coordinators, ensuring workplace safety and compliance.</p>	<p>Principles 11 and 12 in the UNGPs, II. <i>The Corporate Responsibility to Respect Human Rights</i>.</p> <p>Principle 13(b) of the UNGPs, II under <i>The Corporate Responsibility to Respect Human Rights</i> requires businesses to prevent or mitigate adverse human rights impacts directly linked to their operations, products, or services through their business relationships, even if they did not contribute to those impacts.</p> <p>The <i>ILO’s Just Transition Guidelines (2015)</i> call on states to offer financial incentives, such as grants, loans, and tax breaks, to businesses adopting environmentally sustainable practices.</p>

## 6.3 Social Protection of Workers

The socioeconomic disruption caused by the energy transition necessitates a robust safety net for affected workers. Social protection is crucial to combating poverty and inequality, fostering decent employment, ensuring gender and disability equality in work opportunities, and supporting inclusive health and education systems. Measures like unemployment insurance, pension schemes, subsidies for vulnerable groups, active employment policies, and universal health and education are essential to preventing poverty and inequality,<sup>1</sup> making social protection vital for a just energy transition.

Malaysia's social insurance system was established with the Employees Provident Fund (EPF) in 1951 and the Social Security Organisation (SOCSO) in 1971. Public sector employees are covered by the government's pension scheme, while private sector employers and employees contribute to the EPF retirement scheme under the EPF Act 1991. SOCSO complements this with occupational insurance schemes, including the Self-Employment Social Security Scheme (SESS), mandating contributions from self-employed workers in 20 sectors (e.g., passenger transport, online business, fisheries), and the Employment Insurance System (EIS), providing unemployment benefits.<sup>97</sup>

From the 2010s onwards, efforts shifted towards promoting private retirement schemes, including the introduction of the Private Retirement Scheme (PRS) and deferred annuity products, alongside continued skills development programmes for the working population.

The COVID-19 pandemic and movement restrictions tested Malaysia's social protection system. Vulnerable groups received assistance through infrastructure and databases established by government agencies. For instance, SOCSO's system facilitated wage subsidy disbursements, while databases from previous cash transfer

programmes managed by the Malaysian Inland Revenue Board enabled direct financial aid distribution.<sup>97</sup> Looking ahead, Malaysia's social protection system must address the impacts of the energy transition and climate change, ensuring measures to safeguard well-being in a future low-carbon economy. Job creation, reskilling, and addressing job losses are essential for ensuring decent work during the transition. However, achieving a truly equitable future also requires resolving persistent labour issues that undermine workers' human and labour rights.

Although Malaysia ratified the ILO Forced Labour Convention, 1930 (No. 29),<sup>98</sup> forced labour, or modern slavery persists<sup>57</sup> due to discrepancies between its definition in the Federal Constitution and the ILO convention, obstructing effective eradication efforts at all levels. Adrian said the recent issue of forced labour involving First Solar<sup>99</sup> provides a cautionary tale for companies. "If your sector has a high risk for forced labour, and your transition is not properly mapped, you are going to go from the frying pan into the fire."

Migrant workers, both documented and undocumented, are heavily employed in sectors such as manufacturing, construction, agriculture, services, mining, and quarrying. Common challenges faced by migrant workers include deceptive recruitment practices, excessive pre-arrival fees, long working hours without rest days, passport retention by employers or agencies, lack of formal work contracts detailing wages, job roles, or termination terms, and limited access to remedies for grievances.<sup>100</sup> The Business & Human Rights Resource Centre (BHRR) have documented forced labour in the solar supply chain, including Malaysia's solar panel manufacturing industry, highlighting the need for ongoing enforcement of ethical labour practices.

### Case Study 2: Solar panel grievance

In Malaysia, audits have uncovered unethical labour practices at solar manufacturing facilities. For example, a leading US-based solar panel manufacturer revealed that an independent audit found forced labour practices at its Malaysian factory, including the charging of recruitment fees and withholding of pay and passports by subcontractors.<sup>101 102</sup>



Migrant workers, though legally permitted to join trade unions, often face barriers to participation. Their membership is contingent on union approval, and they are prohibited from forming their own trade unions. According to Irene Xavier, executive director of Persatuan Sahabat Wanita Selangor (PSWS), most migrant workers don't join trade unions [even if they could]. They always work under the threat that they will lose their jobs if they become very vocal about unionising. Trade unions need to be more welcoming towards migrant workers. "If you do not protect them, you will ultimately not protect local workers as well. If migrant workers are not taken care of, ultimately it will come back to Malaysian workers," she said.

Trade unions are dominated by men in leadership roles, even though women members outnumber men, according to Adrian. Women

who participate often face challenges, including difficulty advocating for non-discrimination principles, facing dismissive attitudes or resistance from male leaders. Meeting times, often scheduled at night, further deter women due to safety concerns. Women migrant workers are further restricted by curfews at the workers' hostels. In addition, entrenched union-busting strategies by companies effectively prevent participation. Workers—men and women, locals and migrants—particularly in sectors tied to the energy transition, such as fossil fuels, renewable energy, and electronics manufacturing, thus have the opportunity to collaborate on collective agreements that protect their rights but this must be first enabled by transforming companies' view of unions and behaviour towards union members.

## JET-BHR Recommendations

This recommendations table is structured around the UNGPs' two pillars: **Protect and Respect**.

### For government - PROTECT

RECOMMENDATION	GUIDING NOTE
<p><b>1</b></p> <p><b>Social protection data gap and strengthening schemes</b></p> <p>Conduct comprehensive and periodic studies on the energy transition's impacts and review social protection developments in the labour market to anticipate sectors that would be affected from the energy transition and climate change. Focus should be placed on fossil fuel dependent industries and the entire supply chains, also focusing on vulnerable groups (including women, PWDs, migrants).</p> <p><b>Line ministries:</b> MOHR, PETRA, NRES, MOE</p> <hr/> <p>Strengthen social protection systems, including safeguards against employment and health risks caused by the energy transition, aligned with international labour standards. Include these provisions in climate related legislations and policies.</p> <p><b>Line ministries:</b> MOHR, NRES, PETRA</p> <hr/> <p>Introduce a climate risk insurance scheme for vulnerable communities (e.g., flood-prone areas). Explore the implementation of public insurance schemes, in line with existing legislation, to support small businesses such as farmers, fishermen, and MSMEs impacted by climate-related and environmental disasters.</p> <p><b>Line ministries:</b> MOHR, SOCSO</p>	<p><i>ILO's Just Transition Guidelines (2015)</i> anticipates impacts on employment, ensures adequate social protection, and promotes social dialogue, including the right to organise and bargain collectively.</p> <p>Article 9(2) of the <i>United Nations Convention Against Corruption (UNCAC)</i> promotes transparency and accountability in public finances, which are crucial for effective social protection schemes.</p>

## RECOMMENDATION

## GUIDING NOTE

## 2

## Financing social protection

Increase budget allocations for social protection schemes related to energy transition and climate change impacts.

**Line ministries:** MOHR, SOCSO

Develop pathways for carbon tax revenues for social protection, climate adaptation, and reskilling for the green economy.

**Line ministries:** MOE, NRES, MOHR

*ILO's Just Transition Guidelines (2015)* promotes sustainable funding for reskilling and social protection.

## 3

## Uphold workers' rights

Ratify and incorporate the following international labour standards into domestic legislation:

- ILO Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)
- ILO Discrimination (Employment and Occupation) Convention, 1958 (No. 111)
- ILO Migration for Employment Convention (Revised), 1949 (No. 97)
- ILO Domestic Workers Convention 2011 (No. 189)
- ILO Violence and Harassment Convention 2019 (No. 190)
- UN International Convention on the Protection of the Rights of All Migrant Workers and Members of their Families 1990
- International Covenant on Economic, Social and Cultural Rights (ICESCR) 1966.

**Line ministries:** BHEUU

Enact a **Gender Equality Act** to address workplace discrimination and enable legal recourse.

**Line ministries:** BHEUU, Ministry of Women, Family and Community Development (KPWKM)

*ILO's Just Transition Guidelines (2015)* emphasise coherent policies are needed to create decent jobs, anticipate employment impacts, and promote labour rights.

Article 11(d) of the *Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)*<sup>105</sup> recognises the right to equal remuneration, including benefits, and ensures equal treatment for work of equal value and in the evaluation of work quality.

## 4

## Improve migrant worker's rights

Establish safe and regulated pathways for migrant workers by implementing the following measures:

- **Pre-departure and post-arrival training** tailored to occupations, with official written contracts provided during pre-departure orientation.
- **Standardised recruitment processes** that are simplified and transparent.
- **Mandatory prohibition of recruitment fees**, ensuring migrant workers are not charged directly or indirectly, with clear fee schedules published for each origin country.

*The Employer Pays Principle*,<sup>106</sup> endorsed by the Leadership Group for Responsible Recruitment and aligned with Principle 1 of the *Dhaka Principles for Migration with Dignity*,<sup>107</sup> seeks to eliminate exploitation, forced labour, and trafficking in global supply chains by ensuring that workers do not bear the cost of employment.

RECOMMENDATION	GUIDING NOTE
<ul style="list-style-type: none"> <li>• <b>Streamlined oversight</b> by clarifying and centralising the management of migrant worker recruitment and labour law enforcement under a single ministry, avoiding overlap between MOHR and MOHA.</li> <li>• <b>Ban on passport retention</b> by employers or agencies, with strict penalties, including high fines, for violations.</li> <li>• <b>Enhanced forced labour initiatives</b>, extending the National Action Plan on Forced Labour (NAPFL)<sup>103</sup> and ILO’s Migrant Workers Empowerment and Advocacy (MWEA) project,<sup>104</sup> focusing on high-risk transition industries like electronics, mining, and manufacturing.</li> <li>• <b>Strengthened labour law enforcement</b>, including regular inspections and unannounced spot checks, particularly for housing standards in high-risk industries.</li> </ul> <p><b>Line ministries:</b> MOHR, MOHA</p>	

**For business - RESPECT**

RECOMMENDATION	GUIDING NOTE
<p><b>1</b> <b>Respect workers rights</b></p> <p><b>Equal Emphasis on Social Aspects of ESG:</b> Ensure the implementation of ESG principles gives balanced attention to the social dimension, particularly human and labour rights.</p> <p><b>Standardised Pathways for Migrant Workers:</b> Establish or strengthen regular and safe migration pathways aligned with international labour standards to protect migrant workers.</p> <p><b>Inclusive Trade Unions:</b> Encourage trade unions to remove barriers for women and migrant workers, fostering greater inclusivity and participation.</p>	<p><i>The Global Compact for Safe, Orderly, and Regular Migration (GCM)</i><sup>108</sup> emphasises its human dimension, prioritising the well-being of migrants and communities in origin, transit, destination, and return countries, placing individuals at its core.</p>
<p><b>2</b> <b>Strengthen social protection</b></p> <p>Review HR policies to ensure employees are protected against employment and climate-related health risks, such as:</p> <ul style="list-style-type: none"> <li>• Irresponsible dismissal arising from the phase out of fossil fuel power plants</li> <li>• Unfair allocation of placements in reskilling and upskilling programmes</li> <li>• Lack of enforcement on managing heat stress at the workplace</li> </ul>	<p><i>ILO’s Just Transition Guidelines (2015)</i> promote decent jobs and ensure adequate social protection.</p>

## RECOMMENDATION

## GUIDING NOTE

Include informal workers in SOCSO plans and provide health insurance for emerging climate risks (e.g., heatstroke). Ensure HR policies address the rights of migrant workers, comply with national laws, and align with international standards. Provide reskilling opportunities to support migrant workers' career development.

Increase training and awareness initiatives on labour and migrant rights through partnerships with international organisations like the International Organization of Migration (IOM) and business coalitions.

Objective 10, Point 26(i) of the GCM calls for the creation of national and local information systems and training programmes to educate citizens, employers, public officials, and law enforcement on identifying signs of trafficking, including forced, compulsory, or child labour, across origin, transit, and destination countries.

## 3

**Increase workplace inclusion**

Adopt inclusive, gender-responsive workplace policies to promote equal opportunities for all. These should include measures such as equal pay, maternity and paternity leave, accessible childcare facilities, and support for persons with disabilities. Introduce affirmative action initiatives to enhance the participation of underrepresented groups, including women, in leadership roles while ensuring diversity and equity across all levels of employment.

Recommendation 7 from IEA's *Recommendations of the Global Commission on People-Centred Clean Energy Transitions* advocates incorporating gender, equality and social inclusion considerations in all energy policy design.

## 4

**Inclusive Energy Access**

Integrate social protection measures into energy transition strategies to ensure inclusive access for marginalised and high-risk worker groups. Businesses should:

- Provide subsidised or direct energy assistance for workers in low-wage or hazardous sectors to ensure affordability.
- Invest in renewable energy infrastructure for workplaces and employer-provided housing to improve access and living conditions.
- Mandate clean energy standards for safety equipment and reduce occupational hazards.
- Facilitate reskilling and upskilling programmes for workers transitioning to renewable energy jobs, ensuring equitable opportunities.
- Extend benefits to informal and migrant workers, ensuring energy access is inclusive and portable across locations.

Recommendation 8 of the IEA's *Recommendations of the Global Commission on People-Centred Clean Energy Transitions* emphasises that energy transition policies must ensure the fair distribution of clean energy benefits while preventing disproportionate negative impacts on vulnerable populations.

## Access to Remedy

This recommendations table is structured around the UNGPs' third pillar: **Access to Remedy**, and applies across all subchapters in Chapter 6.

FOR GOVERNMENT	GUIDING NOTE
<p><b>1</b> Set up a grievance mechanism to address issues related to national upskilling and reskilling programmes for the following functions:</p> <ul style="list-style-type: none"> <li>• Receive and act upon feedback received from workers on the syllabus of upskilling and reskilling programmes.</li> <li>• Receive and act upon reports of unavailability of upskilling and reskilling programmes, particularly those directly affected by the energy transition, and vulnerable communities including Indigenous People, women, youths and PWDs.</li> <li>• Employees can report OSH non-compliance directly, ensuring it is accessible and available, guarantees anonymity and protects employees from unfair dismissal by employers.</li> </ul> <p><b>Line ministries:</b> MOHR, HRD Corp</p>	<p>Recommendation 2 from <i>IEA's Recommendations of the Global Commission on People-Centred Clean Energy Transitions</i> advocates for developing tailored government support for communities and workers as well as a focus on skills and training.</p> <p>Principle 25 of the UNGPs, III <i>Access to Remedy</i> calls on states to ensure victims of business-related human rights abuses have access to remedies through judicial, administrative, or legislative.</p>
<p><b>2</b> Establish an effective and accessible grievance mechanism for all workers—full-time, part-time, contract, own-account, and informal—across all sectors to address social protection concerns, including:</p> <ul style="list-style-type: none"> <li>• Denial or improper disbursement of social protection benefits to eligible recipients.</li> <li>• Exclusion of specific worker groups or marginalised communities from social protection schemes.</li> <li>• Overly complex application processes for social protection, especially where automation is absent.</li> </ul> <p><b>Line ministries:</b> MOHR, SOCSO</p>	<p>Article 70(1) of <i>ILO's Social Security Convention (1952)</i> states every claimant has a right of appeal in cases of benefit denial.</p>
<p><b>3</b> Review and reform laws to ensure judicial and non-judicial grievance mechanisms address complaints for all migrant workers regardless of nationality or legal status. Permit undocumented migrant workers to remain in Malaysia and work until grievances are resolved through the Department of Labour or Industrial Relations.</p> <p>Enact a modern slavery law granting survivors of forced labour, child labour, and other exploitation direct access to courts for civil claims against employers. Establish a specialised modern slavery court for efficient case handling.</p> <p><b>Line ministries:</b> MOHR, MOHA, BHEUU</p>	<p>Principle 25 of the UNGPs, III <i>Access to Remedy</i> calls on states to ensure victims of business-related human rights abuses have access to remedies through judicial, administrative, or legislative.</p>

FOR GOVERNMENT	GUIDING NOTE
<p><b>4</b> Strengthen engagement with trade unions to raise awareness of the energy transition. Implement membership quotas to increase women's representation and introduce gender-responsive policy initiatives within trade unions.</p> <p><b>Line ministries:</b> MOHR, Department of Trade Union Affairs, National Labour Advisory Council (NLAC), comprising MOHR, MEF, and the Malaysian Trades Union Congress (MTUC), KPWKM</p>	<p>Guiding Principle 13(c) of the <i>ILO's Just Transition Guidelines (2015)</i> emphasises that policies and programmes must address the gender dimensions of environmental challenges and opportunities, incorporating specific gender policies to promote equitable outcomes.</p>
<p><b>5</b> Introduce a mandatory human and labour rights due diligence framework requiring businesses to conduct regular, credible, and transparent assessments, with penalties for non-compliance. Implementation should be in phases, starting with large fossil fuel-dependent businesses and expanding to all sectors and sizes over time.</p> <p><b>Line ministries:</b> BHEUU, MOHR, MOHA</p>	<p>Principles 1 and 2 of the UNGPs, I, <i>The State Duty to Protect Human Rights</i>, require states to prevent, investigate, punish, and redress human rights abuses through effective policies, legislation, regulations, and adjudication.</p>

FOR BUSINESS	GUIDING NOTE
<p><b>1</b> <b>Establish an Internal Committee for Upskilling and Reskilling</b></p> <ul style="list-style-type: none"> <li>• Oversee the development and implementation of upskilling and reskilling programmes.</li> <li>• Address employee feedback on programme content to ensure its relevance and effectiveness.</li> <li>• Actively respond to reports of inadequate training opportunities, especially for employees impacted by the energy transition and vulnerable groups, including women, youth, and PWDs.</li> <li>• Investigate and resolve cases where employees are denied access to training programmes.</li> </ul>	<p>The <i>ILO's Just Transition Guidelines (2015)</i> calls for equal access to opportunities for skills acquisition and recognition for all, in particular for young people, women, and workers who need to be redeployed, including across borders.</p>
<p><b>2</b> <b>Implement Workplace Safety and Health Grievance Mechanisms</b></p> <ul style="list-style-type: none"> <li>• Develop and maintain well-documented grievance mechanisms for workplace safety and health issues.</li> <li>• Ensure employees are fully informed about the availability and proper use of these mechanisms.</li> </ul>	<p>Principle 15(c) of the UNGPs II, <i>The Corporate Responsibility to Respect Human Rights</i>, requires businesses to establish processes for remediating human rights violations.</p>
<p><b>3</b> <b>Adopt Mandatory Human Rights and Environmental Due Diligence (mHREDD)</b></p> <ul style="list-style-type: none"> <li>• Apply mHREDD principles across supply chains to identify, prevent, address and monitor labour and human rights violations, prioritising high-risk industries such as electronics manufacturing.</li> <li>• Establish accessible and effective grievance mechanisms for employees and supply chain stakeholders to report and resolve human rights concerns.</li> </ul>	





# 07 Rights of Vulnerable Groups

A just energy transition grounded in HRBA seeks to build an environmentally sustainable economy while upholding the rights of all individuals. This chapter highlights the critical need for renewable energy transitions to be just, equitable, and inclusive, particularly for communities historically marginalised and disproportionately impacted by the energy sector and climate crisis.

While the transition to renewable energy is essential, it is not inherently just or fair. The intersectionality of race, class, gender, ability, and other forms of oppression shapes access, safety, and employment outcomes within energy systems. Vulnerable groups—including the urban and rural poor, PWDs, the elderly, and refugees—

face compounded risks during this shift. Without deliberate efforts to integrate BHR principles, these communities may experience further marginalisation.

Transitioning to renewable energy mirrors a shift to a new economic model, where those with power and resources often benefit disproportionately, exacerbating inequalities. A responsible and just energy transition must not only address current disparities but also anticipate and mitigate future inequities to ensure no one is left behind.

## 7.1 Women Empowerment in Energy Transition

A just energy transition must recognise women as a diverse and intersectional group, acknowledging how class, gender, and race shape their experiences in energy systems. Women are disproportionately affected by energy poverty, spending more time and resources on energy needs compared to men.

The effects of climate change are particularly skewed against women, many of whom work in sectors vulnerable to environmental degradation. The ILO estimates that 1.2 billion jobs—over one-third of the global workforce—depend on ecosystem services and are at serious risk due to global warming and environmental destruction.<sup>109</sup> This risk disproportionately affects women, especially in rural and low-income settings, where livelihoods are closely tied to natural resources and climate-sensitive industries.

The current energy system affects men and women differently; women are at a significant disadvantage due to the time they allocate to unpaid care and domestic work. Women engage in four times more unpaid care work than men.<sup>110</sup> This significantly cuts down the time a woman has to pursue other opportunities such as education and formal employment. It is worth noting that migrant women and women in rural areas spend more time on unpaid care work.<sup>111</sup>

For example, Orang Asli women in Malaysia rely on water pumps to access clean water, as highlighted in KAMY's *Sekolah Iklim* report.<sup>112</sup> However, the high cost of petrol and frequent pump breakdowns significantly strain their economic resources, exacerbating their energy burden. This situation reflects a broader global reality where rural and Indigenous women face limited access to electricity grids, impacting their health, livelihoods, and opportunities.

Women in urban poor areas also face challenges in accessing energy-efficient technologies. Limited income restricts their ability to invest in appliances or solutions that would reduce energy consumption and costs. Programmes like NUR@PETRA's E-Rebates, which aim to encourage the purchase of energy-efficient equipment, often fail to consider the financial constraints and specific needs of women-led households in low-income urban settings. This gap leaves many women unable to transition to more sustainable practices, perpetuating cycles of energy poverty. Digital literacy gaps in these communities further prevent women from fully utilising energy-efficient technologies, underscoring the importance of inclusive initiatives that address affordability and accessibility for marginalised groups.

## Economic and Social Inequities

Women face significant barriers to economic participation, which impact their ability to benefit from and contribute to the energy transition. Only 20.6% of MSMEs in Malaysia are women-owned, and women's loan ownership is slightly lower at 40% compared to men at 43%.<sup>113</sup> Despite high enrollment rates in primary, secondary, and tertiary education, Malaysia ranks only 13th out of 19 East Asia and Pacific countries in the

2023 Gender Gap Index.<sup>114</sup> Women's labour force participation remains disproportionately low at 56.5%, compared to 83% for men, highlighting structural barriers to economic opportunities.<sup>115</sup> These disparities limit women's capacity to engage in energy-related entrepreneurship or secure funding for renewable energy projects, further excluding them from leadership and decision-making roles in the energy sector.



## Legal Barriers in Energy Transition

Women face significant legal and institutional barriers in participating in and benefiting from energy transition initiatives. Despite women holding 37% of senior management roles in the public sector, representation drops to 25% in the private sector and just 17.7% in board positions within Malaysia's top 100 public listed companies. Additionally, only 15% of parliamentary seats are held by women.<sup>115</sup> This underrepresentation in decision-making is compounded by the absence of legal mandates to ensure women's inclusion in political and corporate leadership roles. As a result, energy policies often fail to address women's specific needs or promote their leadership in the transition.

Workplace discrimination further hinders women's participation in the energy transition. A survey by the Women's Aid Organisation (WAO)

revealed that 56% of Malaysian women have experienced workplace gender discrimination, including unequal pay and limited promotion opportunities.<sup>115</sup> "It is difficult to report discrimination because most of the time, the perpetrator will just gaslight women by saying there is no proof of discrimination," noted one respondent. Such challenges discourage women from pursuing leadership roles, leaving energy policies devoid of a gender-responsive lens.

Labour protections specific to the energy sector remain inadequate. Current laws lack provisions for equal pay, maternity leave, or workplace discrimination protections tailored to renewable energy jobs and transition sectors. OSH concerns unique to women in these roles remain unaddressed, limiting their participation.

Dr. Norasikin, deputy director of the Solar Energy Research Institute at Universiti Kebangsaan Malaysia, noted that while many women graduate in STEM fields, societal norms and caregiving responsibilities prevent them from entering the workforce in significant numbers. She emphasises that “women with degrees in STEM are high, but the portion of these women entering the workforce is low.” In 2021, women made up 53.2% of STEM graduates but only 69.0% were employed. Men had a higher STEM employment share (72.0%) despite having a lower proportion of STEM graduates (46.8%).<sup>116</sup>

Another critical barrier is the lack of visibility for women in STEM and energy-related fields, often due to societal perceptions about their capabilities. As Marisa Hutchinson, environmental justice programme officer at International Women’s Rights Action Watch (IWRAP) Asia Pacific, points out, “There is also no visibility for women in the STEM field due to the perception of their inability to work in this field.” This systemic bias discourages women from entering the workforce despite high enrollment rates in STEM education and highlights the urgent need for representation and cultural shifts.

## Policy Frameworks and Gender Mainstreaming in Energy Transition

Malaysia has demonstrated a commitment to gender equality through national policies such as the National Policy on Women and the Action Plan for the Advancement of Women. However, the integration of gender perspectives into sector-specific policies, including energy, remains limited. The energy sector lacks explicit legal mandates for gender mainstreaming, resulting in programmes that often fail to address women’s specific needs or encourage their participation in energy initiatives.

For instance, the lack of legal requirements to collect sex-disaggregated data on climate change and energy transition further limits targeted interventions. This omission hinders the ability to design evidence-based policies that adequately address women’s challenges and opportunities in the energy sector.

Institutional mechanisms, such as the Ministry of Women, Family, and Community Development (KPWKM), exist but have limited to no influence on energy policy formulation. The absence of legal mandates for gender mainstreaming exacerbates these gaps, leading to a lack of accountability and enforcement. Without these provisions, energy programmes remain gender-blind and fail to address disparities effectively.

Similarly, fiscal measures such as the National Energy Transition Facility Fund (NETFF), which allocates RM305.9 million<sup>117</sup> for renewable energy initiatives, lack gender analysis, leaving questions about their inclusivity and effectiveness in addressing disparities.

## Impact of Energy Transition Infrastructures

Energy transition infrastructure projects, while essential for sustainability, often have disproportionate impacts on women, particularly in marginalised communities. Large-scale projects such as hydroelectric dams and biofuel plantations frequently displace communities, with women losing access to land critical for subsistence farming. This displacement heightens their economic insecurity. As noted by the Women’s Earth and Climate Action Network (WECAN), “Women, often reliant on land for subsistence farming, face loss of livelihoods and increased economic insecurity,” a pattern seen globally in energy projects.

their time for education, income generation, and personal well-being. Exclusion from decision-making further marginalises women, as their needs and priorities are often overlooked in project planning and implementation. The lack of gender-specific requirements in SIAs exacerbates these inequities, leaving women vulnerable to the unintended consequences of energy transition infrastructure projects.

Disruptions caused by these projects also increase women’s care burden. Changes to local ecosystems affect water and fuel availability, forcing women to spend more time securing these resources. This additional workload reduces

## JET-BHR Recommendations

This recommendations table is structured around the UNGPs’ three pillars: **Protect, Respect and Remedy**.

### For government - PROTECT

RECOMMENDATION	GUIDING NOTE
<p><b>1</b></p> <p><b>Institutional and Policy Mechanisms</b></p> <p><b>Mainstream Gender in Policies:</b> Align government policies on energy transition and climate change with Malaysia’s international obligations such as CEDAW, Universal Periodic Review (UPR), UNFCCC frameworks and incorporate Gender Equality, Disability and Social Inclusion (GEDSI) frameworks. Mandate energy transition related gender-responsive budgeting across all ministries and agencies.</p> <p><b>Line ministry:</b> KPWKM</p> <hr/> <p><b>Appoint a National Gender and Climate Change Focal Point (NGCCFP):</b> Mandate and support the NGCCFP in line with UNFCCC’s Decision 3/CP.25, ensuring transparency, inclusivity, and alignment with the LWPG and the Gender Action Plan. Responsibilities include:</p> <ul style="list-style-type: none"> <li>Facilitating cross-stakeholder engagement through consultations and collaboration with Gender Focal Points (GFPs) across ministries and local governments.</li> <li>Building technical capacity for gender-responsive climate policy integration.</li> <li>Supporting gender-disaggregated data collection and monitoring.</li> </ul> <p><b>Line ministries:</b> KPWKM, NRES, PETRA</p> <hr/> <p><b>Strengthen Inter-Ministerial Collaboration:</b> Enhance the coordination between KPWKM, NRES, and other line ministries to integrate gender-responsive mechanisms into energy policies and planning.</p> <p><b>Line ministries:</b> KPWKM, NRES, PETRA</p>	<p><i>The Enhanced Lima Work Programme on Gender (LWPG)</i> is an action plan to advance knowledge and understanding of gender-responsive climate action and its coherent mainstreaming in the implementation of the UNFCCC and the work of Parties, the secretariat, UN entities and all stakeholders at all levels, as well as women’s full, equal and meaningful participation in the UNFCCC process.<sup>118</sup> The five priority areas are:</p> <ul style="list-style-type: none"> <li>Capacity building, knowledge management and communication;</li> <li>Gender balance, participation and women’s leadership;</li> <li>Coherence;</li> <li>Gender-responsive implementation and means of implementation;</li> <li>Monitoring and reporting.</li> </ul>
<p><b>2</b></p> <p><b>Data and Knowledge Management</b></p> <p><b>Develop a Gender-Disaggregated Baseline:</b> Establish a national baseline data system capturing sex- and gender-disaggregated data related to climate change and energy transitions. Include grassroots-level insights and ensure data collection is inclusive of women, marginalised communities, and PWDs.</p>	<p>In the Enhanced LWPG and its Gender Action Plan, the fourth priority area, <i>Gender-responsive implementation and means of implementation</i>, emphasises enhancing the availability of sex-disaggregated data for gender analysis. This includes considering multidimensional factors to better inform gender-responsive climate policies, plans, strategies, and actions, as appropriate.</p>



## RECOMMENDATION

## GUIDING NOTE

**Comprehensive Risk and Vulnerability Analysis:**

Conduct gender-sensitive risk assessments to identify the impacts of climate change and energy transition on vulnerable groups, including women, Indigenous communities, and PWDs.

**Integrate Scientific and Traditional Knowledge:**

Combine local and traditional knowledge from Indigenous and rural communities with scientific research to inform climate resilience and energy transition strategies.

**Ensure Data Transparency and Accessibility:**

Publish collected data in user-friendly formats, available in multiple languages and accessible to individuals with disabilities. Conduct regular audits to ensure data credibility and accuracy.

**Line ministries:** KPWKM, DOSM

## 3

**Economic Participation and Empowerment****Expand Employment in Renewable Energy:**

Create labour opportunities for women in the renewable energy sector through targeted upskilling, reskilling, and education programmes.

**Line ministries:** KPWKM, MOHR

The IPCC's AR6 core elements include:

- Realistic training and retraining programmes that lead to decent work;
- Gender-specific politics that promote equitable outcomes.

Article 36 of the *ASEAN Human Rights Declaration (2012)* enshrines the obligation for ASEAN Member States to implement people-oriented, gender-responsive development programmes that alleviate poverty, protect the environment, promote human rights, and reduce the development gap within the region.

**Support Women-Owned Businesses in Energy Transition:**

Provide targeted financing, technical support, and market access for women-led businesses in renewable energy and energy-efficient solutions. Shift from corporation-led programmes to grassroots and community-led innovations.

**Line ministries:** KPWKM, MOF, PETRA, Ministry of Entrepreneur Development and Cooperatives, Ministry of Rural and Regional Development

UN Women highlights that advancing a gender-responsive just transition requires significantly expanding climate finance targeted at women, grassroots and feminist organisations, enterprises, and cooperatives.

RECOMMENDATION	GUIDING NOTE
<p><b>Promote Gender-Responsive Budgeting for NETFF:</b> Evaluate NETFF’s allocation and impact on women’s employment, safety, and accessibility. Ensure considerations for intersectionality (race, class, gender, ability) in fund distribution.</p> <p><b>Address Financial Barriers:</b> Diversify microloans, subsidies, and rebates tailored to the needs of women-led businesses and low-income households.</p> <p><b>Incentives for Gender-Inclusive Practices:</b> Encourage businesses to adopt gender-responsive policies and initiatives by providing government-backed incentives for:</p> <ul style="list-style-type: none"> <li>• Gender-inclusive training programmes.</li> <li>• Equal pay initiatives.</li> <li>• Leadership diversity programmes.</li> </ul> <p><b>Line ministries:</b> KPWKM, MOF, Ministry of Entrepreneur Development and Cooperatives</p>	<p><i>Budget 2025</i> initiatives for women empowerment:</p> <ul style="list-style-type: none"> <li>• Bank Rakyat Malaysia BR Plus - i BizLady</li> <li>• BSN Women Micro Scheme</li> <li>• SME Bank MySMELady 2.0</li> <li>• MARA Special Business Financing Scheme for Women</li> </ul>
<p><b>4</b></p> <p><b>Education and Workforce Development</b></p> <p><b>STEM and TVET Initiatives:</b> Align STEM and TVET education with energy transition employment opportunities. Offer scholarships, mentorships, and outreach programmes to encourage women and girls to pursue careers in the renewable energy sector.</p> <p><b>Line ministries:</b> KPWKM, National TVET Council</p> <hr/> <p><b>Workplace Gender Equality:</b> Mandate non-discriminatory workplace policies, including adequate maternity leave, paternity leave, childcare centers, flexible work arrangements, and return-to-work programmes.</p> <p><b>Close the Gender Pay Gap:</b> Introduce legislation and policies to address wage disparities and promote affirmative action to increase women’s representation in leadership positions.</p> <p><b>Line ministries:</b> KPWKM, MOHR</p>	<p>Article 10 of <i>CEDAW</i> mandates States Parties to take all necessary measures to eliminate discrimination against women and ensure equal rights with men in education.</p> <p>Article 11(d) of <i>CEDAW</i> requires States Parties to take all necessary measures to eliminate discrimination against women in employment, ensuring equal rights with men.</p>

## RECOMMENDATION

## GUIDING NOTE

**Recognise and Address Unpaid Care Work**

To enable women's participation in green jobs and economic opportunities within a just transition, the government should implement robust social protections to address unpaid care work through:

1. Social Protection Measures:
  - Provide accessible childcare and elder care services.
  - Offer financial support for care work, including diverse remuneration and respite.
  - Enact family-friendly policies like flexible working hours and remote work options.
2. Sustainable Care Economy:
  - Recognise, reduce, and redistribute unpaid care work.
  - Measure all forms of care work and integrate findings into policy-making.
  - Invest in quality care services, infrastructure, and policies to alleviate caregivers' burdens.
  - Promote active labour market policies to support unpaid carers in entering and progressing within the workforce.

These steps will create a more inclusive and equitable workforce while supporting the broader objectives of a just transition.

**Line ministries:** KPWKM, MOHR, MOE

*The 5R Framework for Decent Care Work* advocates achieving a high road to care work with gender equality.<sup>119</sup>

## 5

**Community Engagement and Equity****Empower Women in Communities:**

Promote community-led and women-centric programmes to drive peer learning and the adoption of clean energy technologies. Ensure reliable and affordable renewable energy access for women-led and low-income households.

**Finance Meaningful Participation in Renewable Energy Projects:**

Require women's involvement in all off-grid renewable energy initiatives, particularly in rural and Indigenous communities.

**Digital Tools and Literacy:**

Invest in digital tools (e.g., apps and smart meters) to help women monitor and optimise energy use. Launch digital literacy programmes targeting underserved communities to empower women in leveraging these tools.

**Line ministries:** KPWKM, PETRA, Ministry of Rural and Regional Development

Recommendation 8 of the IEA's *Global Commission on People-Centred Clean Energy Transitions* advises that energy transition policies should ensure equitable distribution of clean energy benefits while mitigating disproportionate negative impacts on vulnerable populations.

RECOMMENDATION	GUIDING NOTE
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<p style="font-size: 2em; font-weight: bold; margin-bottom: 0;">6</p> <p style="font-weight: bold; margin-top: 0;">Social Protection and Equity</p>	<p><b>Expand Climate-Linked Social Protection Programmes:</b> Broaden the mandate of social protection agencies like SOCSO to address climate-related vulnerabilities, ensuring financial security for communities affected by climate disruptions.</p> <p><b>Implement Gender-Sensitive SIAs:</b> Standardise SIAs to include mandatory gender impact assessments before the implementation of energy and infrastructure projects. Engage communities in the development process to address potential social impacts on women’s livelihoods.</p> <p><b>Utilise Carbon Tax Revenue for Women’s Empowerment:</b> Design the carbon tax policy to avoid disproportionate impacts on women and use its revenue to fund programmes that enhance women’s participation in the green economy.</p> <p><b>Line ministries:</b> KPWKM, SOCSO, PETRA, MOF</p> <hr/> <p>Enact a <b>Gender Equality Act</b> to localise state and business obligations under the <i>CEDAW</i>,<sup>105</sup> and ensure gender equality in the workplace including gender pay gap.<sup>57</sup></p> <p><b>Mandate non-discriminatory policies at the workplace including:</b></p> <ul style="list-style-type: none"> <li>• Adequate maternity leave</li> <li>• Provision of workplace childcare centres</li> <li>• Mandatory and longer paternity leave</li> <li>• Availability of return to work programmes</li> <li>• Availability of flexible work and remote work arrangements.</li> </ul> <p><b>Line ministries:</b> KPWKM, MOHR, BHEUU</p>	<p>The <i>ILO’s Just Transition Guidelines (2015)</i> provide a framework for promoting decent job creation, addressing employment impacts, ensuring sustainable social protection for job losses and displacement, fostering skills development, and supporting social dialogue, including the right to organise and bargain collectively.</p> <p>Similarly, Recommendation 8 of the IEA’s <i>Global Commission on People-Centred Clean Energy Transitions</i>.</p> <hr/> <p>Article 11(d) of <i>CEDAW</i> states the right to equal remuneration.</p>
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<p style="font-size: 2em; font-weight: bold; margin-bottom: 0;">7</p> <p style="font-weight: bold; margin-top: 0;">Communication and Advocacy</p>	<p><b>Gender-Sensitive Communication Strategies:</b> Develop campaigns to raise awareness about the energy transition’s benefits, challenges, and opportunities for women. Engage women’s groups in shaping these narratives to ensure their participation in decision-making processes.</p> <p><b>Public Education for Gender Equality:</b> Promote initiatives to foster gender-equal households, workplaces, and communities through public education campaigns.</p> <p><b>Line ministries:</b> KPWKM, Ministry of Communications</p>	<p>In the Enhanced LWPG and its Gender Action Plan, the first priority area, <i>Capacity-Building, Knowledge Management, and Communication</i>, focuses on strengthening the evidence base to understand the differentiated impacts of climate change on men and women. This includes emphasising women’s roles as agents of change and identifying opportunities for their empowerment.</p>
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## RECOMMENDATION

## GUIDING NOTE

8

**Access to Remedy**

Establish a gender-responsive grievance mechanism to address persistent challenges faced by women and new issues arising from the energy transition, including gender discrimination in education, employment, and economic opportunities.

Enhance the Tribunal for Anti-Sexual Harassment to address sexual harassment cases in jobs created within the renewable energy and energy transition sectors.

**Line ministries:** KPWKM, MOHR

Article 2(b) & (c) of *CEDAW* requires states to adopt legislative and other measures, including sanctions where appropriate, to prohibit all discrimination against women. It also mandates the establishment of legal protections ensuring women's rights on an equal basis with men and providing effective remedies through competent national tribunals and public institutions for acts of discrimination.

**For business - RESPECT**

## RECOMMENDATION

## GUIDING NOTE

1

**Workplace Gender Equality and Inclusion****Adopt Gender-Responsive HR Policies:**

Companies should ensure equal access and opportunities for women by implementing non-discriminatory workplace policies, including:

- Adequate maternity leave.
- Provision of workplace childcare centers.
- Mandatory and longer paternity leave.
- Return-to-work programmes.
- Flexible and remote work arrangements.

**Address the Gender Pay Gap:**

Mandate equal pay across genders in all departments and business units, ensuring transparency and fairness in salary structures.

**Merit-Based Affirmative Action:**

Introduce affirmative action policies in HR practices to increase the representation of women in leadership positions across all business units.

**Adopt GEDSI Frameworks:**

Incorporate GEDSI principles into corporate strategies and initiatives, fostering equitable and supportive workplace environments. Strengthen Corporate Social Responsibility (CSR) programmes to address gender disparities in the workplace and beyond.

Aligned with SDG Goal 5 of Gender Equality to recognising and valuing unpaid care and domestic work, the ILO's *Equal Remuneration Convention*, 1951 (No. 100),<sup>120</sup> Article 2 (1) states that Each Member shall, by means appropriate to the methods in operation for determining rates of remuneration and promotion that is fair and equal.

2

**Upskilling and Reskilling for the Energy Transition****Gender-Inclusive Training Programmes:**

Develop and fund continuous learning and upskilling initiatives tailored to women's needs in green sectors, emphasising:

- Accessible training locations.
- Flexible schedules.
- Financial support to offset unpaid care burdens.

Article 10 of *CEDAW* mandates State Parties to take all necessary measures to eliminate discrimination against women and ensure equal rights with men in education.



RECOMMENDATION	GUIDING NOTE
<p><b>Targeted Training in Green Skills:</b> Equip women in traditional sectors with green skills and sustainable practices, enabling them to thrive in the transition to a low-carbon economy.</p>	
<p><b>3</b> <b>Protection Against Workplace Harassment</b></p> <p><b>Anti-Sexual Harassment Policies:</b> Implement company-wide training on preventing and addressing sexual harassment in the workplace. Enforce HR policies with strict actions against perpetrators, ensuring accountability.</p> <p><b>Gender-Responsive Mechanisms:</b> Establish mechanisms to support victims of harassment while providing safe and effective pathways to report and take action against perpetrators.</p> <p><b>Grievance Mechanisms:</b></p>	<p>Article 5 of <i>CEDAW</i> mandates States Parties to take all necessary measures to modify social and cultural conduct patterns of men and women, aiming to eliminate gender-based prejudices. <i>UNEP’s Statement on Protection from Sexual Exploitation and Abuse (PSEA)</i> and response to Sexual Harassment (SH) defines sexual harassment and outlines protective measures.<sup>121</sup></p> <p>Article 12(2) of the <i>Anti-Sexual Harassment Act 2022 (Act 840)</i> mandates that each Tribunal for Anti-Sexual Harassment in subsection (1) panel must include at least one woman.</p>
<p><b>4</b> <b>Energy Equity and Community Engagement</b></p> <p>Ensure women’s leadership in corporate initiatives delivering off-grid renewable energy to rural and Indigenous communities. Integrate women’s perspectives into programme planning and implementation to ensure equitable access.</p>	<p>Recommendation 8 of the IEA’s <i>Global Commission on People-Centred Clean Energy Transitions</i> advises that energy transition policies should ensure equitable distribution of clean energy benefits while mitigating disproportionate negative impacts on vulnerable populations.</p>
<p><b>5</b> <b>Access to Remedy</b></p> <p>Set up internal gender-sensitive grievance mechanisms by ensuring the committee members part of the mechanisms reflect gender diversity and are well-versed in relevant issues including workplace gender discrimination and sexual harassment.</p>	<p>Principle 15(c) of the UNGPs, II under <i>The Corporate Responsibility to Respect Human Rights</i> requires businesses to have in place processes that enable the remediation of any human rights violations.</p>

## 7.2 Orang Asli Self-Determination

The ongoing amendment of the Aboriginal Peoples Act 1954 (Act 134) and the development of the Orang Asli Development Policy (DPOA) leave uncertainties about their capacity to enhance FPIC, particularly for energy transition projects overlapping Indigenous lands. This ambiguity becomes even more critical in light of the 2025 budget, which, while prioritising infrastructure for rural and Indigenous communities, overlooks

the essential protection of Indigenous land rights. Despite a development-focused approach, limited participation in decision-making often leads to displacement and the loss of traditional lands. SUHAKAM (Human Rights Commission of Malaysia) emphasises the necessity of FPIC in all development activities to safeguard the rights and cultural heritage of Indigenous Peoples.



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### An overview of FPIC application in Peninsular Malaysia for energy transition

While RM305.9 million is allocated to the NETFF, there is no explicit requirement for FPIC in renewable energy projects, including those involving Orang Asli communities. Similarly, financial initiatives such as the RM600 million Low Carbon Transition Facility (LCTF) from BNM and RM500 million from Bank Pembangunan Malaysia Berhad (BPMB) for energy transition projects under the NETR fail to specify the inclusion of FPIC. Without FPIC, these initiatives risk excluding Indigenous Peoples from meaningful participation, perpetuating displacement and marginalisation. Integrating FPIC into these allocations is essential to align Malaysia's energy transition with international human rights standards, ensuring inclusivity and equity.

Moreover, Malaysia's financial institutions demonstrate limited adoption of FPIC policies. For example, the CIMB Human Rights Charter does not explicitly recognise FPIC under the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) as part of its commitments. Similarly, Bursa Malaysia lacks publicly available FPIC policies, raising concerns over RECs traded on the Bursa Carbon Exchange, particularly in East Malaysia. Tenaga Nasional Berhad also does not disclose FPIC policies, despite community conflicts arising from projects like the Nenggiri Dam.

## Emerging issue with the voluntary carbon market

Carbon offset initiatives align with the NETR in their shared goal of advancing Malaysia's net-zero strategy. However, the persistent issue of FPIC remains unaddressed. National guidance documents on voluntary carbon markets emphasise stakeholder consultations, including engagement with Indigenous Peoples, as outlined in the National Guidance on International Voluntary Market Mechanisms,<sup>122</sup> and the National Guidance on Forest Carbon Markets.<sup>123</sup> These documents mandate consultations at local and subnational levels, where appropriate, in line with

domestic frameworks for public participation and Indigenous community involvement. However, they lack publicly available information on FPIC policies or grievance mechanisms—whether internal or external—associated with these initiatives. This absence highlights a critical gap in ensuring transparency and accountability.

### Case Study 3: REE mining activities on Orang Asli land and permanent forest reserve

The Semai Orang Asli community of Pos Lanai in Kuala Lipis, Pahang, has long inhabited the Central Forest Spine, an essential ecological corridor. Their ancestral lands have faced repeated threats from logging, agricultural projects, and proposed REE mining activities. Previously, the community successfully opposed the Telom Dam project,<sup>124</sup> but similar challenges now threaten their customary land rights.

In 2021, the community filed a civil suit against the Pahang state government and federal authorities, seeking legal recognition of their customary land and challenging developments that violate the community's FPIC such as the REE mining. Despite ongoing legal proceedings, the Pahang government approved a 220-hectare Non-Radioactive Rare Earth Element (NR-REE) Mining Pilot Project in Sungai Wang, adjacent to Pos Lanai, in 2023.

The lack of publicly accessible EIA documentation has raised significant transparency and accountability concerns as stakeholders cannot verify the project's exact location, sparking fears that it may overlap with the Ulu Jelai Forest Reserve, where mining is prohibited by law. CSOs and the Orang Asli community have raised alarms about potential environmental damage, including deforestation and river pollution, which could disrupt the community's traditional way of life. As of November 2024, the civil suit remains active.<sup>125</sup>

Indigenous Peoples are central to achieving a just transition for all, with their knowledge, practices, and ways of living playing a crucial role in environmental protection, biodiversity conservation, and climate resilience.<sup>126</sup> However, their rights are consistently undermined in development policies that view them solely as vulnerable groups rather than as rights holders. This perspective, particularly prevalent among financial institutions, leads to inconsistent application of safeguarding policies and repeated violations of Indigenous rights. Common human rights risks in green financing include forced evictions, displacement, loss of culture and livelihoods, inadequate consultation on land use, environmental degradation, insufficient governance transparency, and poorly conducted environmental and social impact assessments. Despite international commitments, such as the US\$1.7 billion pledged at COP26 for Indigenous Peoples' tenure rights and forest guardianship<sup>127</sup>

and the Kunming-Montreal Global Biodiversity Framework recognising their rights and participation, implementation remains weak. Political compromises with industry continue to undermine transparency, reporting, and monitoring mechanisms, limiting meaningful progress.

The Orang Asli, the Indigenous Peoples of Peninsular Malaysia, should be beneficiaries of clean and sustainable energy. However, reports of land grabs, violations of FPIC, and environmental degradation linked to renewable energy projects highlight the lack of justice in the energy transition. A longstanding contributing factor to these injustices is the precarious status of Orang Asli native customary lands. Currently, Orang Asli are classified as tenants at will on state-owned land,<sup>128</sup> with land ownership of gazetted Aboriginal areas and reserves under the control of state authorities. The Director General of the Department of Orang

Asli Development (JAKOA), under the Ministry of Rural and Regional Development,<sup>57</sup> serves as the controlling officer. This classification has enabled the state government and private sector to clear lands occupied by Orang Asli for logging, agriculture, and hydroelectric power projects without obtaining their consent—an explicit violation of FPIC.

These practices undermine the rights, livelihoods, and cultural heritage of the Orang Asli. The consequences of these projects affect the Orang Asli's access to clean water, subsistence farming, collection of natural resources from the forests and access to cultural and ancestral burial sites. At times, the clearing of forests increases the frequency of landslides, and deadly human wildlife conflict and flooding.<sup>112</sup>

Renewable energy projects have often disrupted the lives of the Orang Asli. Mega dams have displaced communities from their ancestral lands, disrupting their livelihoods and cultural practices.

In some instances, these displaced communities did not even gain access to the electricity generated by the hydropower projects that uprooted them. Similarly, some solar installations in Orang Asli villages have failed due to inadequate maintenance support, leaving the infrastructure unused.<sup>112</sup> Promises of job opportunities for the Orang Asli in renewable energy projects require scrutiny, as some developers have hired them initially but later dismissed them, citing language barriers.<sup>129</sup> This highlights the need for more inclusive and sustainable employment practices. An example of good practice is solar energy firm Sols Energy, which consistently trains and hires Indigenous workers. Additionally, self-led Indigenous community organisations in Sabah have successfully implemented rural electrification projects.

#### Case Study 4: Small hydro dam in Ulu Geruntum, Gopeng, Perak

In 2018, 22 Orang Asli villagers from the Semai tribe filed a lawsuit to stop a mini hydroelectric project in Ulu Geruntum, Gopeng, Perak. The suit was filed against Perak Hydro Renewable Energy Corporation Sdn Bhd, Conso Hydro RE Sdn Bhd, the Perak state government, the Land and Mines Department, the Federal Government, and the director-general of JAKOA. The villagers claimed the project, which began in 2012, had cleared their ancestral land without their consent, violating their rights. In September 2024, the High Court ruled in favour of the villagers, affirming their ancestral and customary rights over 3,000 hectares of land in Gopeng. The court ordered the Perak Land and Mines Department to demarcate and gazette the land as native customary land. A permanent injunction was also issued, preventing the developers and their agents from encroaching on the land.<sup>130</sup>

The Indigenous Peoples Just Transition Summit in Geneva, October 2024, marked a significant milestone in shaping a just transition. Indigenous leaders from seven socio-cultural regions, including Asia Pacific, unanimously agreed on a shared definition of Just Transition, encapsulated in the *Indigenous Peoples Principles and Protocols for Just Transition*. These 11 principles provide a

robust framework for state actors and businesses to follow when designing and implementing sustainable and green projects.<sup>131</sup> Just transition initiatives must adopt a rights-based approach, ensuring that supply chain activities—from raw material extraction to waste management—do no harm to Indigenous Peoples, ecosystems, or sacred sites.



## JET-BHR Recommendations

This recommendations table is structured around the UNGPs’ three pillars: **Protect, Respect and Remedy**.

### For government - PROTECT

RECOMMENDATIONS	GUIDING NOTE
<p><b>1</b></p> <p><b>Upholding Indigenous Land Rights</b></p> <p>Adopt all the 18 recommendations in SUHAKAM’s Report of the <i>National Inquiry into the Land Rights of Indigenous Peoples</i>.</p> <p>Malaysia should also ratify:</p> <ul style="list-style-type: none"> <li>• UN Declaration on the Rights of Indigenous Peoples (UNDRIP)</li> <li>• ILO Indigenous and Tribal Peoples Convention 1989 (No. 169)</li> </ul> <p><b>Line ministries:</b> Ministry of Rural and Regional Development, BHEUU</p>	<p>SUHAKAM’s Report of the <i>National Inquiry into the Land Rights of Indigenous Peoples</i>, list of 18 recommendations.<sup>132</sup></p>
<p><b>2</b></p> <p><b>Implementation of FPIC</b></p> <p>The ratification of the conventions above can act as the framework to institutionalise the requirement FPIC such as :</p> <ul style="list-style-type: none"> <li>• FPIC must be obtained without coercion.</li> <li>• FPIC must be conducted in a transparent and easily accessible manner.</li> <li>• FPIC must be communicated and involve the participation of all Indigenous community villages affected by the proposed project, not just the selected few.</li> </ul> <p><b>Line ministries:</b> Ministry of Rural and Regional Development, BHEUU, state governments</p> <hr/> <p>Support and finance initiatives to develop community protocols that localise international FPIC standards and empower Indigenous communities’ governance to realise their self-determination. Rooted in traditional knowledge and customary laws, these protocols enable communities to assert their rights, define terms of engagement with external actors, and protect their territories and resources.</p> <p><b>Line ministries:</b> MOF, Ministry of Rural and Regional Development, state governments</p>	<p>Article 6 of the <i>ILO’s Indigenous and Tribal Peoples Convention, 1989 (No. 169)</i> affirms Indigenous Peoples’ right to meaningful consultation and participation in decision-making on projects affecting them.</p> <hr/> <p>Community protocols in Sabah, Malaysia, are essential for implementing FPIC, enabling Indigenous communities to actively participate in decisions affecting their lands and resources. For example, the Ulu Papar communities use biocultural protocols to assert their rights, ensure transparency, and establish consent processes, promoting equitable and informed decision-making.<sup>135</sup></p>
<p><b>3</b></p> <p><b>Renewable energy</b></p> <p>Ensure renewable energy projects respect human rights and protect Indigenous rights to prevent adverse impacts.</p> <p><b>Line ministries:</b> PETRA, Ministry of Rural and Regional Development, state governments</p>	<p>Aligned with <b>SDG Goal 7</b> and <i>Aspirasi Keluarga Malaysia, the National Energy Policy (NEP) 2022</i> promotes affordable, reliable, and sustainable energy access, emphasising equitable distribution of costs and benefits across income groups, ethnicities, regions, and supply chains to support balanced regional development and optimise the country’s energy resources.</p>



## RECOMMENDATIONS

## GUIDING NOTE

Empower Indigenous communities in self-determined development and equitable renewable energy access through knowledge exchange, solidarity, and collaboration with stakeholders.

**Line ministries:** Ministry of Rural and Regional Development, state governments

## 4

### Strengthen policies and legal framework

Enhance the Environmental Quality Act 1974 to mandate comprehensive SIAs to mitigate cumulative impacts of development on communities and the environment.

**Line ministries:** JAKOA, NRES, MITI, state governments

Accelerate legal recognition of Indigenous communities' tenure rights, ensuring inclusion in environment, climate, and energy policies for access to land, water, wildlife, and sacred sites for livelihoods and cultural purposes.

**Line ministries:** NRES, BHEUU, JAKOA, state governments

Improve Ecological Fiscal Transfers (EFTs)<sup>57</sup> to include Indigenous Peoples, ensuring equitable access, transparency, and efficient disbursement. Allocate funding to Indigenous-led initiatives for sustainable forest management, climate adaptation, and wildlife protection.

**Line ministries:** NRES, BHEUU, state governments

## 5

### Meaningful participation in policy decision-making

Institutionalise meaningful consultations with and participation of Indigenous Peoples in the climate policies design and implementation, such as the Climate Change Act.

**Line ministries:** NRES, JAKOA, BHEUU

The *ILO's Indigenous and Tribal Peoples Convention, 1989 (No. 169)* establishes key rights for Indigenous Peoples:

- **Article 6:** The right to meaningful consultation and participation in decision-making on projects affecting them.
- **Article 15(1):** Special safeguarding of Indigenous Peoples' rights to natural resources on their lands, including participation in their use, management, and conservation.
- **Article 20:** Governments must adopt special measures to ensure fair recruitment and employment conditions for Indigenous Peoples where general labour laws do not provide adequate protection.

RECOMMENDATIONS	GUIDING NOTE
<p><b>6</b></p> <p><b>Access to remedy</b></p> <p>Mandate transparent, easily accessible grievance mechanisms for all energy transition projects, especially renewable energy, on Indigenous lands, available throughout all project stages. Ensure affordable and reliable legal assistance is accessible to affected Indigenous communities.</p> <p><b>Line ministries:</b> NRES, PETRA, Ministry of Rural and Regional Development, JAKOA, state governments, BHEUU</p> <hr/> <p>Ensure dignified, comprehensive and timely compensation for Indigenous communities displaced by development projects on their lands. It should include healthcare, education, energy and water access, reskilling, and sustainable economic opportunities, ensuring long-term equity and well-being.</p> <p><b>Line ministries:</b> NRES, PETRA, Ministry of Rural and Regional Development, JAKOA, state governments</p>	<p>Article 12 of the <i>ILO’s Indigenous and Tribal Peoples Convention, 1989 (No. 169)</i> mandates safeguarding Indigenous Peoples against rights abuses and ensuring access to legal proceedings for their protection. It requires measures, including interpretation services, to ensure effective participation and understanding in legal processes.</p> <p>Article 15(2) of the <i>ILO’s Indigenous and Tribal Peoples Convention, 1989 (No. 169)</i> requires that when governments extract resources from Indigenous lands, affected communities must, where possible, share in the benefits and receive fair compensation for any resulting damages.</p>

**For business - RESPECT**

RECOMMENDATIONS	GUIDING NOTE
<p><b>1</b></p> <p><b>Respect Indigenous Land Rights</b></p> <p>Recognise Indigenous Land Rights in the business human rights charter or policy, aligned with internationally recognised human rights standards.</p>	<p>Principles 11 and 12 of the UNGPs, II <i>Corporate Responsibility to Respect Human Rights</i> require businesses to avoid infringing on internationally recognised human rights and address violations across their operations.</p>
<p><b>2</b></p> <p><b>Implementation of FPIC</b></p> <p>Establish FPIC standards aligned with international best practices and community engagement to operationalise the business human rights charter.</p> <hr/> <p>Integrate mandatory FPIC training across all management and leadership levels within business operations, ensuring staff engaging with Indigenous and local communities consistently uphold these standards in practice.</p>	<p>Article 6 of <i>ILO’s Indigenous and Tribal Peoples Convention, 1989 (No. 169)</i> outlines the right of Indigenous Peoples to meaningful consultation and participation in decision-making of projects related to them.</p>
<p><b>3</b></p> <p><b>Impact assessment and due diligence</b></p> <p>Conduct HREDD, EIA, and SIA across all project stages involving Orang Asli communities, ensuring these assessments are thorough, transparent, and publicly accessible.</p>	<p>Principles 11 and 12 of the UNGPs, II. <i>Corporate Responsibility to Respect Human Rights</i>.</p>

RECOMMENDATIONS	GUIDING NOTE	
	<p>Support capacity-building initiatives for Orang Asli communities to enhance their understanding of HREDD, EIA, and SIA processes and empower them to engage effectively with stakeholders.</p>	
<p><b>4</b> <b>IP Employment in RE Sector</b></p>	<p>Enable meaningful Indigenous participation in renewable energy projects, offering opportunities for ownership or co-ownership where desired. Adopt flexible benefit-sharing models tailored to Indigenous priorities, and invest in long-term community capacity building to support equitable and sustainable partnerships.</p>	
<p><b>5</b> <b>Access to remedy</b></p>	<p>Businesses should establish an internal grievance mechanism to address infringements of Indigenous rights across all business units and vendors operating on or near Indigenous lands. This mechanism should align with the business's existing human rights policy and include provisions to resolve issues such as compensation for displaced Indigenous communities.</p>	<p>Principle 15(c) of the UNGPs, under <i>The Corporate Responsibility to Respect Human Rights</i> requires businesses to have in place processes that enable the remediation of any human rights violations. According to Principle 22, in cases where the business is aware of such a case it has caused, the business should provide for their remediation through legitimate processes.</p>

## 7.3 Environmental Human Rights Defenders

The UN defines Environmental Human Rights Defenders (EHRDs) as individuals or groups who peacefully protect and promote human rights related to the environment, including water, air, land, flora, and fauna.<sup>134</sup> As a subset of Human Rights Defenders (HRDs), EHRDs' work aligns with the UN's recognition of a "clean, healthy, and sustainable environment" as a fundamental human right.<sup>3</sup> Their role in a just energy transition is closely tied to environmental protection and the rights of Indigenous Peoples, often regarded as custodians of the environment.

EHRDs are identified by their work, which includes activists, lawyers, journalists, and ordinary individuals living in remote areas who defend against environmental destruction or land grabbing. Many are Indigenous leaders or community members safeguarding their lands from large-scale projects like mining and dams.<sup>134</sup> EHRDs rely on access to environmental information, participation in decision-making processes, and justice in environmental matters to carry out their critical work.<sup>135</sup>

In Malaysia, EHRDs face a high risk of being targeted by strategic lawsuits against public participation (SLAPPs). The absence of legal provisions or civil remedies prevents EHRDs from compelling environmental offenders to implement rights mitigation or remediation measures. Additionally, SUHAKAM lacks the authority to enforce such actions, and Malaysia has no environmental rights ombudsman to provide recourse. Without effective grievance mechanisms, affected parties often turn to environmental groups for support in engaging regulatory authorities and raising public awareness. However, this approach often exposes both EHRDs and their allies to intimidation or legal challenges, including SLAPPs.<sup>57</sup>

### Case Study 5: SLAPP used against EHRDs: Samling vs. SAVE Rivers

In August 2021, Indigenous communities in Sarawak raised concerns about two forest management units (FMUs) granted to a major logging company, leading to a defamation lawsuit against the CSO SAVE Rivers. The lawsuit, filed by Samling Group, challenged SAVE Rivers' articles on disputed forestry certifications involving logging on Indigenous land. After two years of legal proceedings, during which SAVE Rivers was barred from publishing related articles—violating their rights as an EHRD—Samling Group dropped the lawsuit in September 2023 following a settlement.<sup>136 137</sup> The case drew solidarity from local and regional CSOs and attention from the UN Special Rapporteur on Human Rights Defenders and other UN experts, highlighting the need to protect EHRDs from such violations.

Legal recognition is essential to protect EHRDs and prevent violence against them. Between 2012 and 2023, a total of 2,106 land and environmental defenders were killed globally, with many cases linked to industries such as mining, agribusiness, logging, hydropower, and poaching.<sup>138</sup>

Hydropower projects, such as the Nenggiri dam case, highlight the contentious nature of energy development. Similarly, the push for REE mining across Peninsular Malaysia threatens the goal of a just energy transition without proper safeguards

to protect EHRDs through federal and state laws. The Escazú Agreement, a treaty from Latin America and the Caribbean, which promotes access to information, public participation, and environmental justice to ensure the protection of EHRDs, can serve as a model for Peninsular Malaysia's just energy transition.

## JET-BHR Recommendations

This recommendations table is structured around the UNGPs' three pillars: **Protect, Respect and Remedy**.

### For government - PROTECT

RECOMMENDATION	GUIDING NOTE
<p><b>1</b></p> <p><b>Rights of EHRDs</b></p> <p>Recognise the role of EHRDs and protect their right to:</p> <ul style="list-style-type: none"> <li>• Access environmental information at no cost.</li> <li>• Participate in the decision-making process of environmental matters.</li> <li>• Access legal avenues in environmental matters.</li> <li>• Criticise environmental wrongdoers without fear of retaliation.</li> </ul> <p><b>Line ministry:</b> BHEUU</p>	<p>Article 4(6) of the <i>Escazú Agreement</i> mandates Parties to ensure an enabling environment for individuals, associations, organisations, or groups advocating for environmental protection by recognising and safeguarding their work.<sup>135</sup></p>
<p><b>2</b></p> <p><b>Right of Peaceful Assembly</b></p> <p>Revise the Peaceful Assembly Act 2012 to align with international standards by removing discriminatory provisions<sup>139</sup> to ensure equitable access to the right to peaceful assembly.</p> <p><b>Line ministry:</b> BHEUU</p>	<p>Article 20 of the <i>Universal Declaration of Human Rights (UDHR)</i> guarantees the right of individuals and groups to meet peacefully, express their views, and protest.</p>
<p><b>3</b></p> <p><b>SLAPP regulation</b></p> <p>Strengthen legislation to require companies to meet strict criteria before initiating litigation against IPs and local communities, and implement anti-SLAPP measures to protect affected communities when businesses bypass EIA approval processes or conduct land reconnaissance without approval.</p> <p><b>Line ministries:</b> BHEUU, NRES</p>	<p>Point 64, Part V, Section A of the <i>Special Rapporteur's report on human rights defenders</i><sup>134</sup> highlights SLAPPs as tools to silence defenders by undermining their rights to freedom of expression and participation in public affairs. These lawsuits impose severe financial and psychological burdens, demobilising defenders and emphasising the need for robust support in their defense.</p>
<p><b>4</b></p> <p><b>Access to information</b></p> <p>Enact the Freedom of Information Act to guarantee EHRDs and the public's right to seek information on the development or projects in their respective areas.</p> <p><b>Line ministry:</b> BHEUU</p>	<p>Article 5(1) of the <i>Escazú Agreement</i> requires each Party to guarantee public access to environmental information under its control and custody, guided by the principle of maximum disclosure.</p> <p>The Malaysian government announced plans to table the Freedom of Information Bill in 2025.<sup>140</sup></p>
<p><b>5</b></p> <p><b>Participation in decision-making</b></p> <p>Enable public participation in renewable energy and other development projects within their localities. The public must be given adequate time to review project plans, provide feedback, and monitor progress transparently.</p> <p><b>Line ministries:</b> BHEUU, NRES</p>	<p>Article 7(1) of the <i>Escazú Agreement</i> mandates that each Party ensure the public's right to participate in environmental decision-making processes. This includes implementing open and inclusive participation in line with domestic and international normative frameworks.</p>



RECOMMENDATION	GUIDING NOTE
<p><b>6</b></p> <p><b>Capacity-building</b></p> <p>Enable consistent training and capacity-building support on environmental rights for the judicial community and legal practitioners.</p> <p><b>Line ministry:</b> BHEUU</p>	<p>Article 10(2)(b) of the <i>Escazú Agreement</i> encourages Parties, within their capacities, to develop and enhance programmes for raising awareness and building capacity in environmental law and access rights. These programmes should target the public, judicial and administrative officials, national human rights institutions, and jurists.</p>
<p><b>7</b></p> <p><b>Access to remedy</b></p> <p>Establish a Public Ombudsman office and strengthen the Whistleblower Protection Act 2010 (WPA).</p> <p>Create a specialised tribunal for environmental litigation to deliver timely decisions, enhance EHRDs’ and affected parties’ ability to hold duty-bearers accountable, and ensure effective access to remedies. This tribunal should also monitor and maintain a national database of land conflicts and their outcomes, with at least one member from SUHAKAM.</p> <p>Create guiding principles for internal grievance mechanisms at the project design stage and throughout development, ensuring it is easily accessible to communities to address potential agreement breaches and facilitate mediation before project completion.</p> <p>Malaysia should sign on and ratify the <b>International Covenant on Civil and Political Rights (ICCPR)</b>.</p> <p><b>Line ministries:</b> BHEUU, NRES</p>	<p>The State’s obligation to provide an effective remedy for violations is affirmed in Article 2(3)(a) of the ICCPR, while Article 9 of the <i>UN Declaration on the Right and Responsibility of Individuals, Groups and Organs of Society to Promote and Protect Universally Recognized Human Rights and Fundamental Freedoms</i> asserts defenders’ rights to effective remedies and protection in cases of violations. Ensuring this right requires prompt and impartial investigations, prosecution of perpetrators regardless of status, redress for victims, including appropriate compensation, and enforcement of decisions or judgments.</p>

**For business - RESPECT**

RECOMMENDATION	GUIDING NOTE
<p><b>1</b></p> <p><b>Rights of EHRDs</b></p> <p>Incorporate international and regional human rights standards, such as the UNGPs and Voluntary Principles on Security and Human Rights, into company policies. Publicly affirm the rights of EHRDs, regardless of their legal recognition in Malaysia, and align all actions with this commitment.</p> <hr/> <p>Conduct thorough and transparent mHREDD, EIA, and SIA for all high-risk projects, ensuring full participation and consultation with affected communities including EHRDs.</p>	<p>Principle 11 of the UNGPs, states that businesses must respect human rights under <i>The Corporate Responsibility to Respect Human Rights</i>.</p> <hr/> <p>Principle 15(b) of the UNGPs, under <i>The Corporate Responsibility to Respect Human Rights</i> requires businesses to implement a human rights due diligence process to identify, prevent, mitigate, and address their impacts on human rights.</p>

RECOMMENDATION	GUIDING NOTE
<p><b>2</b> <b>Meaningful consultation</b></p> <p>Refrain from physical, verbal, or legal actions against EHRDs. Instead, actively engage them in the design, implementation, and evaluation of projects, including EIA and SIA processes.</p>	<p>Principle 18(b) of the UNGPs, under <i>The Corporate Responsibility to Respect Human Rights</i> states that businesses must identify and assess actual or potential adverse human rights impacts arising from their activities or business relationships.</p>
<p><b>3</b> <b>Access to information</b></p> <p>Ensure information related to planned and ongoing large scale development projects is made available to the affected communities, EHRDs and the public in a timely and accessible manner.</p>	<p>Principle 11 of the UNGPs, <i>II. The Corporate Responsibility to Respect Human Rights</i>.</p>
<p><b>4</b> <b>Access to remedy</b></p> <p>Businesses should establish a functional and accessible grievance mechanism to prevent, address, and remedy both direct and indirect human rights violations. This mechanism must extend to all vendors and subcontractors, requiring them to uphold the rights of EHRDs and implement their own effective grievance systems.</p> <p>Companies should also formally report all human rights violations and the measures taken to address them. These reports should include details of external verification processes and be made publicly accessible to ensure transparency, accountability, and trust among stakeholders.</p>	<p>Principle 15(c) of the UNGPs, under <i>The Corporate Responsibility to Respect Human Rights</i> requires businesses to establish processes to remediate human rights violations.</p> <p>Principle 21 of the UNGPs, under <i>The Corporate Responsibility to Respect Human Rights</i> requires businesses involved in high-risk operations to communicate their human rights policies and actions, both internally and externally.</p>

## 7.4 Intergenerational Equity: Children and Youth Rights

Protecting the rights of current and future generations is crucial for a just energy transition. The *Maastricht Principles on the Human Rights of Future Generations* obligate state governments to safeguard the rights of future generations.<sup>141</sup> These principles highlight the unique role of children and youth, ensuring their participation in decisions involving long-term and intergenerational risks. Today's youth and future generations are among the most vulnerable to the impacts of climate change, driven by the activities of past and present generations. The ecological debt created primarily by the global North will disproportionately affect future generations worldwide, compounding post-pandemic economic challenges and social inequalities. Intergenerational justice is central to this issue, as young people and future generations bear the consequences of widespread resource extraction

and environmental degradation, despite having no role in causing them.<sup>142</sup> A human rights-based approach aligns with the broader goal of fostering children and youth empowerment by involving them in decision-making processes that directly impact their well-being.

Disaggregated data by age (e.g., 0–14, 15–18, 19–24, 25–28, 29–31, 32–34) is crucial for evidence-based climate decision-making. Such data helps understand how climate change impacts and economic transitions affect young people across areas like health, education, and employment. For instance, climate anxiety varies by life stage: younger children may experience fear and confusion, while older youth and young adults often face helplessness and existential dread.<sup>143</sup>

### Children's Participation in Policy-Making

Malaysia ratified the *Convention on the Rights of the Child (CRC)* in 1995,<sup>144</sup> yet children's rights within the context of a just energy transition remain unassessed. The continued use of fossil fuels, unsustainable resource extraction, pollution, and deforestation undermines a child's right to a healthy environment, jeopardising their future prospects.

Intergenerational justice demands a shift in mindset, especially among policymakers and businesses, recognising that “we do not inherit the Earth from our ancestors but borrow it from our children.” Energy transition policies must prioritise responsible resource management and environmental stewardship to protect children's rights.

The shift to renewable energy will lead to job losses in fossil fuel-dependent industries, with significant repercussions for workers, communities, and their children. Without adequate support, loss of income could push more families into poverty, disproportionately affecting children. Additionally, the extraction of critical minerals like REE for renewable technologies carries risks, including child labour and environmental harm.<sup>145</sup>

The CRC guarantees children's rights to education, an adequate standard of living, and freedom of expression. To prepare for the future, children must receive education and skills aligned with green jobs and climate action. As key stakeholders in shaping the future, they must be empowered to express their views and participate in consultations with governments and businesses.

### Youth Empowerment

Domestically, the energy transition is expected to affect today's youths in terms of future education and employment opportunities. The youths need to be equipped with the skills needed in a low-carbon environmentally sustainable economy. Education plays a key role in preparing youths for the future but 10,160 out of 383,685 students were absent during the 2023 SPM examinations held in 2024.<sup>146</sup> Recent trends show a decline in youth enrollment in college and an increase in Own Account Workers (OAW), which include informal workers such as gig economy workers. Most of the people in the OAW category are youths and women.<sup>147</sup>

Due to the insecure nature of informal jobs, particularly those in the gig economy, the government plans to establish the Malaysian Gig Economy Commission (SEGiM) to provide long-term protection and upskilling and reskilling opportunities to the affected workers. Beyond the setting up of the commission, the National TVET Council, has developed a framework to help gig economy workers access TVET courses that align with the country's labour market needs.<sup>148</sup>

## JET-BHR Recommendations

This recommendations table is structured around the UNGPs' three pillars: **Protect, Respect and Remedy**.

### For government - PROTECT

RECOMMENDATION	GUIDING NOTE
<p><b>1</b></p> <p><b>Children and Youth Education</b></p> <p>Establish a blueprint on climate related education in the national syllabus. Introduce topics related to energy transition, green economy, circular economy, green industries (including agroecology), sustainability and climate change mitigation and adaptation in secondary school and foundational studies syllabus.</p> <p><b>Line ministries:</b> Ministry of Education, KPWKM</p>	<p>Aligned with SDG Goal 4 of Quality Education, the <i>Berlin Declaration on Education for Sustainable Development (ESD)</i>,<sup>149</sup> adopted by participants at the UNESCO World Conference in 2021, calls for urgent action to enhance sustainability and climate action through education.</p>
<p><b>2</b></p> <p><b>Children and Youth Representation in National Climate Governance</b></p> <p><b>Institutionalise Youth and Child Engagement in Decision-Making</b></p> <ul style="list-style-type: none"> <li>Mandate youth participation in climate governance and energy transition consultations to ensure their perspectives are integrated into policy development.</li> <li>Establish Youth Climate Councils at both state and federal levels, to provide structured and impactful roles for young people and youth-led NGOs in drafting climate and energy transition policies.</li> <li>Establish formal mechanisms for children to engage with the government on issues affecting their future, including climate change, environmental protection, and economic transitions. Designate the Children's Commissioner in SUHAKAM as the national focal point to coordinate and facilitate these engagements.</li> </ul> <p><b>Allocate National Budget for Youth and Child Empowerment</b></p> <ul style="list-style-type: none"> <li>Provide funding for community-led programmes that encourage active participation from youths and children in environmental and climate-related initiatives, including just energy transition.</li> </ul> <p><b>Ensure Accessibility and Inclusion</b></p> <ul style="list-style-type: none"> <li>Design engagement sessions to be accessible to diverse groups, including those from rural and urban areas, as well as vulnerable populations such as Indigenous communities, refugees, stateless individuals, and persons with disabilities.</li> </ul> <p><b>Line ministries:</b> NRES, PETRA, KPWKM, Ministry of Youth and Sports (KBS)</p>	<p>Point 178 of the <i>UNFCCC COP28 Global Stocktake (GST)</i> urges gender-responsive, human rights-respecting climate policies that empower youth and children.</p> <p>Article 7(3) of the <i>Convention on the Rights of Persons with Disabilities (CRPD)</i> ensures children with disabilities can freely express their views on matters affecting them.</p> <p>Article 13 of the <i>CRC</i> guarantees children's freedom of expression, including the right to seek, receive, and share information across borders.</p>

RECOMMENDATION	GUIDING NOTE
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**3**

**Institutionalising legal mechanism for disaggregated data collection and data driven financing for children and youth**

The Climate Change Act must mandate the collection of disaggregated data on children and youth. This data is essential to identify marginalised groups, including vulnerable, rural, and Indigenous communities, stateless individuals, and persons with disabilities. Such data should inform targeted, data-driven financing initiatives to support empowerment projects led by children and youth.

**Line ministries:** KPWKM, KBS, Ministry of Rural and Regional Development

**4**

**Youth employment and Child Labour**

Develop structured green job pathways for technical and non-technical occupations tailored to youth, incorporating the following criteria:

- **Dignified Employment:** Ensure fair wages and comprehensive benefits.
- **Quality and Safe Working Conditions:** Promote work-life balance and flexible arrangements.
- **Career Development:** Provide clear opportunities for career progression.

Facilitate green entrepreneurship among youth by offering comprehensive courses on the green and circular economy and providing targeted and matched funding or loans to support green start-ups, and incentivise larger businesses to adopt and train young trainees.

**Line ministries:** MOHE, MOHR, National TVET Council, Ministry of Entrepreneur Development and Cooperatives, MOF

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**Child Labour**

Proactively introduce safeguards including policy assurances that prevent any incidences of child labour in sectors that could potentially see such occurrences, for example artisanal and small-scale mining in REE mining.

**Line ministries:** KPWKM, NRES, PETRA, MITI, Ministry of Agriculture and Food Security, Ministry of Plantation & Commodities, MOHR

**SDG Goal 8** of Decent Work and Economic Growth, includes achieving full, decent work for all women and men, including young people.



RECOMMENDATION	GUIDING NOTE
<p><b>5</b></p> <p><b>Children and Youth Health rights</b></p> <p>Mandate the protection of children’s health and well-being into national laws and energy transition policies, to regulate highly polluting economic areas that pose risks to children’s health and safety including and ensuring their right to a healthy environment such as:</p> <ul style="list-style-type: none"> <li>• Fossil-fuel based energy sectors</li> <li>• ICE automotive industry</li> <li>• Agriculture</li> <li>• Manufacturing and Industry</li> <li>• REE mining</li> </ul> <p>Integrate children’s rights into the Climate Change Act and the National Adaptation Plan, addressing both physical health and mental health concerns, such as climate anxiety.</p> <p><b>Line ministries:</b> KPWKM, MOH</p>	<p>Article 27(1) of the <i>UN CRC</i> obliges States Parties to ensure every child’s right to a standard of living adequate for their physical, mental, spiritual, moral, and social development.</p>
<p><b>6</b></p> <p><b>Increasing energy access</b></p> <p>Strengthen institutional mechanisms to combat energy poverty by ensuring affordable, responsible and reliable energy access, particularly from RE sources, across Peninsular Malaysia.</p> <p><b>Line ministries:</b> PETRA, Ministry of Rural and Regional Development, KPWKM</p>	<p>Recommendation 8 of the <i>IEA’s Global Commission on People-Centred Clean Energy Transitions</i> advocates for the equitable distribution of clean energy benefits.</p>
<p><b>7</b></p> <p><b>Rights of future generations</b></p> <p>Mandate the sustainable use of natural resources to protect the well-being of future generations. Embed the four pillars of a sustainable transition into national laws and policies to regulate business operations:</p> <ul style="list-style-type: none"> <li>• Resource efficiency and circularity</li> <li>• Utilisation of low-emissions energy sources</li> <li>• Nature-friendly agricultural practices for food security</li> <li>• Just transition through equitable approaches</li> </ul> <p><b>Line ministries:</b> MOE, NRES, PETRA, MITI, Ministry of Agriculture and Food Security</p>	<p>Principle 7(b) of the <i>Maastricht Principles on the Human Rights of Future Generations</i> requires states to respect and uphold children’s human rights both in the present and the future, ensuring they are not jeopardised.</p>
<p><b>8</b></p> <p><b>Access to Remedy</b></p> <p>Establish legal avenues where youth and children can hold governments or corporations accountable for pollution, health risks, or other harms caused by energy projects, as well as delayed or insufficient climate action. The right of youths and children to express their views must be protected and proper channels must be provided in cases where this right is prevented.</p> <p><b>Line ministries:</b> BHEUU, KPWKM, KBS</p>	<p>Article 13 of the <i>UN CRC</i> states that every child shall have the right to freedom of expression; this right shall include freedom to seek, receive and impart information and ideas of all kinds, either orally, in writing or in print, in the form of art, or through any other media of the child’s choice.</p> <p>Article 37 (d) of the <i>UN CRC</i> states that every child deprived of his or her liberty shall have the right to prompt access to legal and other appropriate assistance.</p>

**For business - RESPECT**

RECOMMENDATION	GUIDING NOTE
<p><b>1</b> <b>Recognise rights of children and youth</b></p> <p><b>Integrate Children and Youth in Corporate Policies</b> Include the rights of children and youth in the corporation’s human rights policy or charter.</p> <hr/> <p><b>Ensure Children’s Rights in the Supply Chain</b> Align the entire supply chain with BHR principles, ensuring no harm to children through practices such as toxic waste dumping, child labour, deforestation, or environmental degradation.</p> <hr/> <p><b>Advance Sustainable Business Practices</b> Accelerate the shift to renewable energy and sustainable operations within the framework of a just energy transition, adhering to the UNGPs to mitigate climate change impacts and reduce risks to children’s health and safety.</p>	<p>Principles 11 and 12 of the UNGPs, under <i>The Corporate Responsibility to Respect Human Rights</i> state that businesses must respect internationally recognised human rights by avoiding infringements and addressing any violations within their operations.</p> <p>The <i>IPCC’s AR6</i> urges deep, rapid, and sustained reductions in GHG emissions to limit global warming to 1.5°C or below 2°C by the century’s end.</p>
<p><b>2</b> <b>Supporting youth employment in green sectors and energy access</b></p> <p>Businesses should develop youth-focused programmes and mentorship opportunities in green and emerging energy transition sectors, including renewable energy, sustainable agriculture, and waste management.</p> <hr/> <p>Expand in-house training programmes in renewable energy for youth from vulnerable backgrounds, focusing on providing clean, affordable, and reliable energy while addressing poverty alleviation. Training should include long-term maintenance and repair skills.</p> <p>Ensure sustainability by offering continuous financial support, including improved access to loans.</p>	
<p><b>3</b> <b>Access to Remedy</b></p> <p>Establish internal grievance mechanisms that cover all business units and vendors, with the following conditions:</p> <ul style="list-style-type: none"> <li>• Guided by a clear human rights policy that includes youth and child rights.</li> <li>• Consists of members knowledgeable in youth and child rights in the context of the environment, health, climate change and energy transition.</li> <li>• Regularly engages with independent youth and child rights experts.</li> </ul>	<p>Principle 15(c) of the UNGPs, <i>The Corporate Responsibility to Respect Human Rights</i>, requires businesses to establish processes to enable the remediation of human rights violations.</p>

The background features a dark blue field with abstract geometric elements. A vertical orange line is positioned on the left side. A horizontal orange line is positioned in the lower third of the page. Two large, overlapping circular arcs are present: one in orange and one in teal. The orange arc is centered on the horizontal orange line, and the teal arc is centered on the vertical orange line. The two arcs intersect in the lower right quadrant.

# 08 Environmental Rights

Malaysia has established policies and regulations to protect the environment, yet gaps remain in implementing a human rights-based approach. Civil society organisations have repeatedly highlighted these shortcomings,<sup>150</sup> and the government has acknowledged the need for improvement.<sup>57</sup> A key issue is the lack of explicit recognition of environmental rights in Malaysia. While these rights are implied through various laws and policies, they are not expressly guaranteed in the Federal Constitution.

The courts have occasionally recognised the right to a safe, clean, healthy, and sustainable environment as implied under the right to life in Article 5 of the Constitution. However, interpretations vary, resulting in inconsistent enforcement. Further barriers arise as rights enshrined in the UDHR and the ASEAN Human Rights Declaration 2012 are

considered non-binding and inapplicable under domestic law. This limitation restricts Malaysians' ability to directly enforce their right to a clean and sustainable environment, underscoring the need for robust legal frameworks as part of a just energy transition.

SUHAKAM has proposed amending Article 5 of the Federal Constitution to explicitly include a healthy environment as part of the right to life. In support of this, it published six recommendations in response to CSO complaints in 2021, focusing on improving governance related to domestic and transboundary haze pollution under existing Malaysian legislation.<sup>151</sup>

## Procedural Challenges

Overlapping and conflicting jurisdictions between Federal and state governments create significant barriers for the public and CSOs seeking remedies. These challenges often undermine efforts to hold violators accountable. Public participation in environmental matters is not mandated by law and is inconsistently applied. Despite international and regional standards such as the Aarhus Convention, the Rio Declaration (1992), and the Special Rapporteur's Report on the Rights of EHRDs, Malaysian authorities maintain that such rights are not obligatory. For instance, the government has clarified that providing EIAs free of charge is not mandatory. Consequently, development projects in ESAs and Indigenous lands often proceed without sufficient oversight or completed EIAs.

Procedural rights—including access to information, public participation, and access to justice—are crucial for ensuring transparency and accountability in environmental governance. International standards demand platforms for meaningful consultation, timely feedback, and stakeholder input. However, in Malaysia, the lack of legal mechanisms to mandate these rights and weak enforcement significantly undermine their effectiveness. Addressing these procedural gaps requires integrating these rights into binding legal frameworks and ensuring enforcement through improved resources, expertise, and commitment.

## Substantive reforms and the case for constitutional recognition

Legal recourse for citizens to challenge government or developer-backed projects remains limited,<sup>57</sup> and there is a notable absence of accountability mechanisms for environmental disasters such as flooding and landslides. Substantively, the proposed Climate Change Act must prioritise accountability for environmental harm and establish robust legal mechanisms to uphold the right to protection. These mechanisms must ensure equitable resource distribution and safeguard communities disproportionately impacted by climate change, advancing environmental justice, public health, and sustainable development for current and future generations. However, these challenges cannot rely solely on the Climate Change

Act. Recognising the right to a healthy, safe, and sustainable environment in Malaysia's Federal Constitution would provide a robust foundation for all laws, including the Climate Change Act, to be effectively enforced. Such recognition would:

- Establish a universal legal baseline, ensuring all existing and future legislation is harmonised and aligns with constitutional environmental standards.
- Strengthen accountability, empowering courts to enforce compliance and hold violators accountable across all sectors.

- Enhance policy integration, embedding environmental considerations into diverse areas such as urban planning, industrial regulation, and natural resource management.
- Empower citizens and CSOs by granting them stronger procedural rights, such as access to information and participation, backed by constitutional protection.
- Provide a clear judicial mandate for interpreting and enforcing environmental rights in legal disputes.
- Catalyse legislative and policy reforms to ensure laws governing natural resource extraction, waste management, and industrial emissions meet constitutional standards.
- Align Malaysia with international best practices, strengthening its commitments under global agreements like the Paris Agreement and the ASEAN Declaration on Environmental Rights, currently being drafted.



## Regional and Global Alignment

The ASEAN Declaration on Environmental Rights, currently in draft, represents a significant opportunity to address these gaps. It aims to establish regional standards for public participation, accountability, and sustainable development, providing a framework for Malaysia to align its domestic policies with international best practices.

## Addressing inequities in the Energy Transition

The energy transition will affect everyone, but its impacts will disproportionately burden vulnerable groups, such as the urban and rural poor, women, PWDs, the elderly, and refugees. A just energy transition grounded in BHR principles must address these existing inequalities while anticipating future ones. Shifting to new energy sources resembles an economic transformation, where those with power and capital are poised to benefit the most, leaving marginalised groups further sidelined.



## Social dialogue, a step forward

Social dialogue is an essential mechanism for realising environmental rights. The ILO defines social dialogue as all forms of negotiation, consultation, or information sharing among representatives of governments, employers, and workers—or between employers and workers—on issues of common interest relating to economic and social policy. In the context of environmental rights, social dialogue operationalises procedural rights, such as public participation, access to information, and access to justice, ensuring inclusive and transparent governance in decision-making processes.

The energy transition and broader environmental policies have far-reaching implications for labour rights, social equity, and environmental justice. Social dialogue provides the platform to address these intersecting issues, ensuring that policies integrate environmental rights with the rights of workers, Indigenous peoples, and marginalised communities. Without structured dialogue, there is a risk that policies perpetuate or exacerbate existing inequalities.

The National Labour Advisory Council (NLAC) is Malaysia’s primary platform for social dialogue, involving the Ministry of Human Resources (MOHR), the Malaysian Employers Federation (MEF), and the Malaysian Trades Union Congress (MTUC).<sup>152</sup> This tripartite advisory body plays a key role in discussing and advising on labour and human resource. After inactivity since the COVID-19 pandemic, it resumed meetings in November 2024.<sup>153</sup>

A just energy transition under BHR principles requires meaningful engagement with all stakeholders. Some form of social dialogue can be seen in the NRES’s Consultative Panel on Climate Change to engage NGOs, CSOs, vulnerable communities, and youth, and the public consultations for the Climate Change Act.

While CSOs have welcomed these initiatives, many noted insufficient notice to prepare their feedback adequately. Furthermore, consultations often lack follow-through, with engagement perceived as a formality rather than genuine dialogue. Although the government has engaged CSOs on climate change issues, serious discussions on the energy transition, particularly with PETRA, remain limited. Similarly, while there are private-sector avenues for government engagement, platforms specific to the energy transition have yet to be established.

Concerns about social inclusion in the energy transition framework are evident in the Rang Undang-undang Perubahan Iklim Negara (RUUPIN) consultation paper and the NETR. Both appear fragmented and incoherent with the ambitions of the National Policy on Climate Change (NPCC) 2.0, which prioritises social inclusion and the protection of vulnerable and marginalised communities.

## JET-BHR Recommendations

*This recommendations table is structured around the UNGPs’ three pillars: **Protect, Respect and Remedy.***

### For government - PROTECT

RECOMMENDATION	GUIDING NOTE
<p><b>1</b></p> <p><b>Recognition of environmental rights</b></p> <p>Explicitly enshrine the right to a clean, safe, and healthy environment as a fundamental human right in Malaysia’s Constitution. This recognition should encompass both procedural and substantive rights and be accompanied by the harmonisation of existing laws and policies to reflect and uphold this right effectively.</p> <p><b>Line ministries:</b> NRES, BHEUU, Attorney General Chambers</p>	<p>Agenda Item 74(b) of the <i>UNGA 76th session</i> recognises the right to a clean, healthy, and sustainable environment as a human right. It calls on states, business enterprises, and other stakeholders to adopt policies that ensure this right for all.</p>

## RECOMMENDATION

## GUIDING NOTE

2

**Right to Information and participation in decision-making**

Enact the Freedom of Information Act to enable access to information among the public and affected communities.

**Line ministry:** BHEUU

Develop guiding principles for environmental democracy to set standards for decision-making processes. Ensure communities have the right and ability to meaningfully influence decisions affecting their future.

**Line ministries:** NRES, PETRA, BHEUU

The UN defines freedom of information as the right to access information held by public bodies. It is a core component of the fundamental right to freedom of expression, recognised by *UN General Assembly Resolution 59 (1946)* and Article 19 of the *Universal Declaration of Human Rights (1948)*.<sup>154</sup>

Articles 6, 7, and 8 of the UNECE *Aarhus Convention* mandates states to ensure public participation in environmental decision-making within a fair and transparent framework. These obligations align with the three pillars of environmental democracy—access to information, public participation, and access to justice—known collectively as “access rights.” Embedded in Principle 10 of the *Rio Declaration on Environment and Development*, these access rights represent the procedural aspects of the right to a healthy environment, forming the cornerstone of inclusive and equitable environmental governance.

3

**Legally binding human rights due diligence**

Develop a national mHREDD framework to prevent adverse environmental and human rights impacts, and for long-term effectiveness, it should be guided by a legal framework on BHR. It should:

- Ensure businesses conduct independent social (human rights) due diligence and environmental risk and impact assessments, and act on their findings in a transparent manner.
- Enable businesses to face strong penalties when the law is breached.
- Be aligned with national disclosure directives and other climate change and long-term low emissions development strategies, and domestic emissions trading schemes.
- Be subjected to a review and verification process every five years, aligned with the Malaysian Plan processes.

**Line ministries:** BHEUU, NRES, PETRA, MITI, Ministry of Local Government Development, Ministry of Plantations and Commodities

The *NBABHR* encourages the government to develop national mHREDD obligations to address environmental and human rights transgressions through effective BHR legislation or complementary legal frameworks.

4

**Strengthen policy implementation and law enforcement**

Strengthen forest management laws and address the gap between federal and state jurisdiction. Refine the definition of forests and prioritise protection against high risk industries, including:

- large scale development and infrastructure projects
- timber and forestry products
- mining (including REE mining)

Goal 2 of the *National Policy on Biological Diversity 2022-2030 (NPBD 2022-2030)*<sup>155</sup> includes targets for effectively integrating biodiversity conservation into development frameworks and strengthening forest governance and management for biodiversity conservation by 2030.

## RECOMMENDATION

## GUIDING NOTE

- monoculture plantation and agriculture,
- housing development

**Line ministries:** NRES, PETRA, MITI, Ministry of Local Government Development, Ministry of Plantations and Commodities

In the next review cycle of the National Physical Plan and ESA Framework, amend zoning laws to ensure renewable energy projects do not encroach on protected areas, forest reserves, or Indigenous reserves.

**Line ministries:** MOE, PETRA, NRES

Establish a centralised programme under a dedicated environmental enforcement agency or within existing institutions to strengthen the capacity of enforcement agencies in handling environmental cases. This should include:

- **Adequate Funding and Resources:** Allocate dedicated budgets for environmental enforcement to ensure agencies are equipped with necessary tools and technology.
- **Regular Training Programmes:** Institutionalise periodic and updated training for enforcement personnel, focusing on building technical and legal competencies relevant to environmental cases.
- **Competency Standards:** Develop and enforce standardised guidelines and benchmarks for enforcement agencies, ensuring consistent and professional handling of environmental cases.
- **Performance Monitoring:** Create mechanisms for tracking and evaluating the effectiveness of enforcement personnel and the implementation of environmental laws, promoting accountability and continuous improvement.

**Line ministries:** NRES, MOHA, MOF

Mandate the adoption of Strategic Environmental Assessments (SEA) for renewable energy projects to address limitations of traditional EIAs, which often fail to account for cumulative impacts and broader public interests. SEAs should ensure:

- **Cumulative Impact Analysis:** Evaluate the combined environmental and social implications of multiple renewable energy projects, addressing gaps left by traditional EIAs.

Action 10.1 of the *NPBD 2022-2030* calls for strengthening enforcement against poaching, illegal logging, and wildlife trade, proposing for improved training and support for rangers, police, and prosecutors.

In line with this, Malaysia's *2025 Budget* allocates RM80 million to expand the Biodiversity Protection and Patrolling Programme (BP3) and Smart Patrol initiatives, increasing community rangers to 2,500 to safeguard the Central Forest Spine (CFS).

Article 14(a) of the *UN Convention on Biological Diversity* calls for states to introduce the appropriate procedures requiring environmental impact assessment of its proposed projects that are likely to have significant adverse effects on biological diversity with a view to avoiding or minimising such effects and, where appropriate, allow for public participation in such procedures.

## RECOMMENDATION

## GUIDING NOTE

- **Policy Alignment:** Integrate renewable energy developments with national and regional sustainability objectives to ensure coherence and inclusivity.
- **Stakeholder Engagement:** Promote early and meaningful engagement with stakeholders, including vulnerable communities, to incorporate diverse perspectives into strategic decision-making.

**Line ministries:** NRES, PETRA

Mandate evaluation by an independent scientific advisory panel to assess the feasibility and environmental impact of renewable energy and carbon emissions reduction projects employing new technologies, such as CCS, CCUS, co-firing, and hydrogen.

Require all renewable energy projects to undergo comprehensive social cost-benefit analyses to evaluate their wider societal impacts, ensuring balanced and informed decision-making.

**Line ministries:** PETRA, MOSTI, MITI

Mandate guidelines requiring all foreign investments, particularly in energy, industry, and technology, to comply with international and domestic environmental standards, covering terrestrial, inland water, coastal, and marine ecosystems.

**Line ministries:** PETRA, MITI, MOSTI, NRES

The UNGA Human Rights Council, in its 54th session report titled *Agenda Items 3 and 5: Impact of New Technologies Intended for Climate Protection on the Enjoyment of Human Rights - Report of the Human Rights Council Advisory Committee*, emphasised that human rights standards and obligations must apply to all climate mitigation technologies. It strongly advised a precautionary approach where scientific uncertainty and the risk of serious or irreversible environmental and human harm persist.

## 5

## Social Dialogue

Facilitate meaningful consultations on the energy transition, integrating just energy transition and BHR principles with CSOs, the private sector, academia, the public, and vulnerable communities, including employers and trade unions, with the following criteria:

- **Inclusive Participation:** Ensure accessibility for all stakeholders, prioritising vulnerable groups such as women, PWDs, children, the elderly, and Indigenous Peoples.
- **Transparency and Accountability:** Provide access to relevant information, enabling participants to track progress post-consultation.

The *ILO's Just Transition Guidelines (2015)* highlight the importance of social dialogue as an integral part of policy-making and implementation, calling for ongoing, informed consultation with all stakeholders.

Recommendation 3 of the IEA's *Global Commission on People-Centred Clean Energy Transitions* advocates for social dialogue, robust stakeholder engagement, and policy coordination to ensure effective energy transitions.

Article 4 of the UNECE *Aarhus Convention* obliges states to provide public access to environmental information in an accessible manner.

RECOMMENDATION	GUIDING NOTE
<ul style="list-style-type: none"> <li>• <b>Adequate Notice:</b> Offer sufficient notice for consultations, including a timetable for major events like UNFCCC COP climate negotiations, to enable thorough preparation by civil society and vulnerable communities.</li> <li>• <b>Awareness and Engagement:</b> Promote awareness of rights-based energy transitions through targeted events for employers and trade unions.</li> </ul> <p><b>Line ministries:</b> NRES, PETRA, MOHR</p>	
<p><b>6</b></p> <p><b>Access to Remedy</b></p> <p>Establish a specialised tribunal for environmental litigation, with at least one member from SUHAKAM, that would allow activists and affected parties to hold the government and corporations accountable in a time-sensitive manner. The tribunal should also be tasked with monitoring and maintaining a national database of land conflicts, particularly in ESAs.</p> <p>Prepare guiding principles for internal grievance mechanisms of projects situated in ESAs at the design stage and throughout development, ensuring it is easily accessible to affected communities to address potential agreement breaches and facilitate mediation before project completion.</p> <p><b>Line ministries:</b> BHEUU, NRES</p>	<p>The State’s obligation to provide an effective remedy for violations is affirmed in Article 2(3)(a) of the ICCPR.</p>

**For business - RESPECT**

RECOMMENDATION	GUIDING NOTE
<p><b>1</b></p> <p><b>Recognise and incorporate environmental rights throughout the entire business operations</b></p> <p>Integrate environmental rights and democracy principles into the business and human rights charter, aligned with international standards like the UNGPs. Ensure senior management commitment and communicate across the supply chain. Incentivise staff training at all levels and allocate resources to implement these principles effectively.</p>	<p>Principle 11 of the UNGPs, II. <i>The Corporate Responsibility to Respect Human Rights</i>, states that business enterprises must respect human rights.</p>
<p><b>2</b></p> <p><b>Strengthening Environmental Standards and Responsible Investments</b></p> <p>Review and update environmental standards based on World Health Organization (WHO), ILO OSH conventions, and other expert guidelines, ensuring they are legally binding, time-bound, and enforceable.</p> <p>Establish responsible investment guidelines aligned with international environmental standards, covering investments in terrestrial, inland water, coastal, and marine ecosystems.</p>	<p>Principle 15(b) of the UNGPs, II. <i>The Corporate Responsibility to Respect Human Rights</i>, mandates that businesses implement a human rights due diligence process to identify, prevent, mitigate, and address the impacts of their activities on human rights.</p> <p>Signatories to the <i>Principles of Responsible Investment (PRI)</i> incorporate ESG standards to their investment practices.</p>



## RECOMMENDATION

## GUIDING NOTE

## 3

**Promoting Stakeholder Engagement for a Just Energy Transition****Engage Trade Unions Transparently**

Actively collaborate with trade unions to build trust and address workplace safety, health risks, and the broader impacts of climate change as part of the energy transition.

**Proactive Internal Engagement**

For organisations without trade unions, engage directly with employees across all business units and departments to ensure well-being and alignment with a low-carbon, sustainable economy.

**Collaborate with CSOs**

Partner with human rights and environmental organisations to build capacity and integrate just energy transition principles into business practices.


Recommendation 3 of the IEA's *Global Commission on People-Centred Clean Energy Transitions* advocates social dialogue, robust stakeholder engagement, and policy coordination to achieve improved energy transition outcomes.

## 4

**Access to remedy**

Establish a functioning and accessible internal grievance mechanism to address environmental and human rights violations for all business units and vendors. The mechanism should be guided by international agreements such as the *Rio Declaration on Environment and Development 1992*, *UN Convention on Biological Diversity*, *Kunming-Montreal Global Biodiversity Framework* and national policies such as *NPBD*.

Principle 15(c) of the UNGPs, II, *The Corporate Responsibility to Respect Human Rights*, requires businesses to establish processes to enable the remediation of human rights violations.



**09** Linking Climate Injustice &  
The Energy Transition

Climate justice has been widely used to refer to the unequal historical responsibility that countries and communities bear to the climate crisis.<sup>156</sup> It calls on high-emission countries to lead GHG reductions and support developing nations' mitigation and adaptation efforts with financial and technical assistance. Developed countries with the highest cumulative GHG emissions, such as the United States (24.5%), the European Union (17.1%), and the United Kingdom (4.4%), have disproportionately contributed to global warming, making up close to half of the total in 2021.<sup>157</sup> In contrast, Malaysia's emissions, at only 0.37% of the global total in 2021, highlight its limited historical responsibility.<sup>21</sup> Although the principle of Common but Differentiated Responsibilities and Respective Capabilities (CBDR-RC) permits each

country to tailor climate actions to its domestic circumstances, developed nations, which should lead decarbonisation efforts, are among the G20 members projected to miss their 2030 Nationally Determined Contribution (NDC) targets and are expected to exceed these targets by 1 GtCO<sub>2</sub>e in 2030.<sup>158</sup>

## Injustice in climate finance

Climate justice reveals inequalities in the distribution of climate burdens and benefits. Developed nations often prioritise mitigation over adaptation, despite the intensifying effects of climate change. Financing commitments have fallen far short of promises. Domestically, adaptation financing in Malaysia is limited, even as the government begins developing the National Adaptation Plan (MyNAP) with approval from the Green Climate Fund (GCF).<sup>159</sup>

The prioritisation of mitigation over adaptation by developed nations represents a significant climate injustice for developing countries, particularly due to the chronic failure to deliver adequate adaptation financing. While mitigation efforts, such as renewable energy initiatives, aim to reduce future greenhouse gas emissions, adaptation focuses on addressing the immediate and escalating impacts of climate change—such as floods, droughts, and rising sea levels—that disproportionately affect vulnerable populations in developing nations. Despite the urgent need for adaptation, financial flows remain heavily skewed toward mitigation projects, leaving developing countries under-resourced to cope with the immediate effects of climate change.

Adaptation finance continues to fall short of what is needed to bridge the growing adaptation gap. Although developed countries pledged US\$100 billion annually in climate finance under international frameworks, this commitment remains unmet, with adaptation projects receiving less than half of the required funding. The 2023 Adaptation Gap Report further highlights that while international public adaptation finance to developing countries increased to US\$28 billion in 2022, this represents only about 5% of the estimated adaptation finance gap of US\$187-US\$359 billion per year.<sup>160</sup> At COP29, developed

countries pledged to triple climate finance to US\$300 billion annually by 2035. However, developing nations criticised the commitment as insufficient, delayed, and misaligned with the principles of CBDR-RC.<sup>161</sup> This imbalance perpetuates climate injustice by exacerbating vulnerabilities, undermining resilience, and disproportionately shifting the burden of climate impacts onto countries least responsible for the crisis. Communities in developing nations face the brunt of climate change impacts without sufficient resources to adapt, whether through flood defences, sustainable agriculture, or other critical measures.

Furthermore, the injustice extends to the financing of the energy transition. Developed nations, which bear the greatest historical responsibility for emissions, often fail to adequately support developing countries in their transition to low-carbon energy systems. The majority of energy transition funding from international financial institutions is allocated to mitigation projects in middle- and high-income countries, sidelining the poorest nations. This not only limits access to renewable energy but also deepens existing inequalities.

Moreover, many financial flows to developing countries take the form of loans rather than grants, burdening them with debt that limits their ability to tackle both adaptation and mitigation challenges. Debt distress and restricted public fiscal deficit have significantly hindered progress in the global South. In 2022, developing nations spent US\$443.5 billion on debt servicing. Additionally, global investment flows remain concentrated within the global North, with 2% of total global investment reaching the least developed countries (LDCs), exacerbating existing economic inequalities.<sup>162</sup>

The reliance on private sector financing, particularly in energy transition initiatives, further exacerbates inequities. Investments often prioritise profitable ventures over projects that ensure equitable energy access, leaving marginalised communities—such as Indigenous Peoples, informal workers, and rural populations—

without the benefits of clean and sustainable energy. This approach reflects a failure to align financial mechanisms with the principles of climate justice and sustainable development, which demand fair distribution of both climate burdens and benefits.

## Economic injustice and resource exploitation

The global South remains economically exploited by colonial systems. Mechanisms like the EU's unilateral Carbon Border Adjustment Mechanism (CBAM) impose additional costs on exports from countries like Malaysia, which lacks its own carbon pricing system.<sup>163</sup> Trade agreements risk diverting attention from domestic climate mitigation efforts. Plans by corporations in developed countries to pursue transboundary carbon storage have raised concerns over emissions transfer. Storing carbon—a form of waste—from developed to developing countries parallels the issue of plastic

and e-waste dumping.<sup>164</sup> Such practices threaten developing nations' ability to meet their NDCs while perpetuating extractive dependency and risk turning countries like Malaysia into carbon dumping grounds, akin to its experience with plastic waste.

### Case Study 6: The Carbon Colonialism of CCS

The transport of carbon from developed to developing countries for storage is often criticised as “carbon colonialism.” Malaysia's CCS plan has drawn interest from countries like Japan, with three of nine advanced CCS projects announced by the Japanese government for fiscal year 2024 aiming to store CO<sub>2</sub> in Malaysia.<sup>165</sup> Malaysia's three CCS hubs under the NETR are set to become operational by 2030, with a storage capacity of 15 Mtpa of CO<sub>2</sub>.<sup>12</sup> Critics argue that this “outsourcing” of carbon emissions mirrors the exploitative logic of colonial production, where value flows to the core (developed nations) while waste is left at or shipped to the periphery (developing nations). Malaysian and Japanese CSOs jointly called on their governments energy transition pathway to abandon CCS projects, condemning them as a form of carbon colonialism that delays genuine climate action and undermines equitable energy transitions.<sup>166 167</sup>

The economic injustices of the global South trace their roots to colonialism, where colonial powers exploited resources through coercive methods like mass enslavement and indenture. Economists and historians from dependency and world systems theory argue that the colonial economic structure persists, with industrial growth in the global North continuing to rely on resource appropriation from the global South.<sup>168</sup> This extractive system is perpetuated through global commodity chains, where businesses in the global North leverage monopolistic power to depress prices for global South suppliers, from extraction to manufacturing, while maximising profits in final markets.<sup>169 170</sup> The energy transition risks replicating these exploitative

dynamics, as the demand for critical minerals and resources needed for renewable energy disproportionately burdens the global South.

A fair and rights-based approach to climate action must address these disparities. Developed countries must honour their financial commitments, prioritise adaptation alongside mitigation, and ensure that energy transition financing is accessible, equitable, and aligned with the needs of the most vulnerable. By adopting a more balanced and justice-oriented financial framework, the international community can begin to rectify the systemic inequalities at the heart of the climate crisis.

## Traces of colonialism in Peninsular Malaysia

Malaysia's colonial legacy of resource extraction<sup>171</sup> for development and labour practices remains evident. Indigenous Peoples, particularly the Orang Asli, face repeated encroachments on their lands for mega infrastructure projects, plantations, logging, and mining, often without FPIC. Environmental degradation and displacement continue to marginalise these communities.

The absence of robust accountability mechanisms compounds climate injustices. Land rights, labour issues such as migrant and domestic workers rights, environmental rights violations and the persistent struggle for gender and disability justice needs a transformative change. The current economic systems cannot address these systemic issues effectively, leaving communities vulnerable to exploitation and neglect.

In Malaysia, climate injustices deepen existing vulnerabilities. Low-income communities face energy poverty, migrant workers endure unsafe conditions in extreme heat, gender disparities persist in the workforce, Indigenous Peoples suffer displacement from deforestation, and coastal communities are severely impacted by rising sea levels and flooding. These inequities are further entrenched by the unequal distribution of energy access and resources across regions and communities. Additionally, Malaysia's representation at COP29 highlighted systemic inequalities: corporate delegates far outnumbered CSOs, limiting the voices of climate-vulnerable communities in critical decision-making.<sup>173 174</sup>



KITLV - 79970 - Kleingrothe, C.J. - Medan - Main shaft of the Raub Gold Mining Company, Pahang - circa 1910

## The right to development and Economic, Social, and Cultural Rights (ESCR)

The right to development and Economic, Social, and Cultural Rights (ESCR) are essential in achieving a just energy transition and advancing climate justice in Peninsular Malaysia. These principles guarantee equitable access to resources, such as education, healthcare, and employment, ensuring that no one is excluded from the benefits of the transition while addressing the disproportionate impact of climate change on marginalised communities. By prioritising poverty alleviation, they foster social equity and resilience, enabling vulnerable groups to enjoy basic services and improved living standards. Emphasising inclusive decision-making, they amplify the voices of those most affected by climate change, ensuring that everyone, particularly women, Orang Asli, persons

with disability, the young people and low-income communities, can actively participate in and benefit from the transition. Additionally, these principles call for balancing environmental and developmental needs, safeguarding resources for future generations, and protecting ecosystems from harm. International cooperation, including fair trade, technology transfer, and financial support for less developed nations, aligns the energy transition with global equity and shared responsibility, directly addressing the unequal contributions to and impacts of climate change. Together, these principles ensure a people-centred, sustainable energy transition that upholds human rights and structurally addresses the inequities of the climate crisis.



# Conclusion

This JET-BHR report highlights the critical need to recognise and protect human rights across key areas of Peninsular Malaysia's economy, labour rights, vulnerable communities, environmental rights, and climate justice. By anchoring the recommendations within the BHR framework—centred on the principles of protect, respect, and access to remedy—the report provides a universal foundation for ensuring Malaysia's energy transition is both just and sustainable.

Malaysia's current energy transition, focused on shifting from fossil fuels to low-carbon energy sources, must go beyond simply transforming energy systems. It must be conducted responsibly and equitably, addressing all aspects of modern life while upholding the rights to sustainable development and Economic, Social, and Cultural Rights (ESCR). These rights form the backbone of a just energy transition

and must be universally applied across Malaysia, including in Sabah and Sarawak, to guarantee responsible governance of energy projects and emerging technologies.

The year 2025, with Malaysia's ASEAN chairmanship themed "Inclusivity and Sustainability," offers a pivotal opportunity to position Just Energy Transition and Business and Human Rights at the forefront of national and regional agendas. By seizing this moment, Malaysia can lead the way in implementing policies that not only improve lives but also ensure the full enjoyment of human rights for all its people.

This transition is more than a shift in energy sources—it is a chance to redefine progress, to foster inclusivity, and to create a future that is both equitable and sustainable. Let this be the foundation for meaningful action that upholds human dignity and ensures no one is left behind.



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#### About Klima Action Malaysia (KAMY):

Klima Action Malaysia (KAMY) is a women-led climate justice and feminist organisation, addressing climate and environmental justice with a strong focus on women empowerment. We raise awareness and build movements by engaging state and non-state actors to promote rights-based approaches of a just and equitable world, grounded in decolonisation frameworks. In these areas, we collaborate with marginalised communities, especially women, Indigenous Peoples, and youth, to actively participate in climate governance and decision-making processes. Our initiatives include advocating for policy and legal reform, such as Malaysia's declaration of a climate emergency, and recognising environmental rights within the constitution. By decolonising knowledge creation to foster resilience, we address gender disparities and dismantle systemic oppression that perpetuates the climate crisis. As a registered organisation from 2020, we concentrate on six synergistic key areas within our human rights-based approach: Indigenous People, Gender and Women Empowerment, Business and Human Rights, Climate Communication, and Just Energy Transition and Legal Empowerment.

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