INSTITUTE OF STRATEGIC & INTERNATIONAL STUDIES (ISIS) MALAYSIA

focus

PP5054/11/2012 (031098)
10/2025 ISSUE NO. 23

Global South's climate agenda

Brazil-Malaysia climate cooperation towards COP30

Saving multilateralism is not enough for saving the planet and the poor

Decolonise to decarbonise

ISIS Malaysia

The Institute of Strategic & International Studies (ISIS) Malaysia was established on 8 April 1983 with a mandate to advance Malaysia's strategic interests. As an autonomous research organisation, we focus on foreign policy and security; economics and trade; social policy and nation-building; technology and cyber; and climate and energy.

For more than four decades, ISIS Malaysia has been at the forefront of evidence-based policymaking, as well as Track 2 diplomacy, promoting the exchange of views and opinions at the national and international levels. We also play a role in fostering closer regional integration and international cooperation through various forums, such as the Asia-Pacific Roundtable, the ASEAN Institutes of Strategic & International Studies network, the Council for Security Cooperation in the Asia-Pacific, the Pacific Economic Cooperation Council, the Network of East Asian Think-Tanks, the Network of ASEAN-China Think-Tanks and the ASEAN-Australia-New Zealand Dialogue.

Contents

Editor
Kieran Li Nair

Designer
Mohd Farouf Sahal

Proofreader
Syamil Zahari
(ProofPlus Services)

Publisher
Institute of Strategic & International Studies (ISIS) Malaysia
1, Persiaran Sultan Salahuddin
50480 Kuala Lumpur, Malaysia

Editor's *Note*

This special edition of ISIS *focus*, *Global South's climate agenda*, is published in the lead-up to the 30th Conference of the Parties (COP30) taking place in Belém, Brazil, from 11–22 November 2025.

After the controversial outcome of the 29th Conference of the Parties, in particular the underwhelming new collective quantified goal on climate finance for developing nations, many expectations are placed upon COP30 to truly embody and move towards the goals of the Paris Agreement. From the parties' renewed Nationally Determined Contributions to elevating grassroots and Indigenous Peoples' demands for the protection of the planet, COP30 bears stakes that have never been higher, demanding historical responsibility and true ambition to achieve a 1.5°C future for all.

Anchored in a vision of equity and justice for the global majority, the special edition features contributions from esteemed policy experts, civil society and climate advocates in exploring a diverse range of topics, including but not limited to energy transition, adaptation and resilience, as well as nature-positive development, Indigenous Peoples' rights and technology transfer. These pieces create a cartography of thought-provoking insights from Malaysia, Southeast Asia and the broader Global South in exploring the perspectives, trials and convictions from the developing world in the face of the climate crisis.

Notably, among others, the ambassador of Brazil in Kuala Lumpur, HE Daniella Ortega de Paiva Menezes, reflects on Brazil-Malaysia relations in the lead-up to Brazil's COP30 Presidency. Meenakshi Raman, Head of Programmes at Third World Network, explores the capacity of multilateral reform and how parties must move into COP30. Dr Fadhel Kaboub, Associate Professor of Economics at Denison University, calls for the decolonisation of the global order to achieve a just and equitable future.

The editors of ISIS *focus* remain ever grateful to all contributors and readers for your unwavering support. We wish you a productive reading. ■

Foreword

Datuk Prof Dr Mohd Faiz Abdullah
Chairman
Institute of Strategic & International Studies (ISIS)
Malaysia

We wish we could be more magnanimous in our summation of the outcomes of the 29th Conference of the Parties (COP29) but we have to tell it like it is: a mockery of justice, a perversion of the aims of the platform, no less.

Foisted on us was an underwhelming new collective goal on climate finance, a gavel forced at the expense of the Global South. It couldn't have come at a worse time, when mobilisation of support is most urgently needed to confront the ever-escalating climate crisis. Nations of the global majority were, once again, slammed with crude manoeuvres harking back to the colonial era of economic and political subjugation. The upshot: a stark antithesis to the Paris Agreement's foundational principles of equity and common but differentiated responsibilities.

Faced with an ever-deepening divide, the Global South has once again been left to pick up the pieces of feeble outcomes and promises that remain unfulfilled. While these failings persist, our 1.5°C north star strays further over the horizon.

Nevertheless, not all is lost amid these sombre reflections. The road ahead leads us into the heart of the Amazon – the 30th Conference of the Parties (COP30). If COP29 left the world befuddled, then COP30 must deliver with conviction. Indeed, Brazil's environmental stewardship, shaped by people-centric leadership and Indigenous ecological consciousness, rekindles the indomitable spirit of resistance against environmental degradation and the structural injustices that have plagued the global order for far too long.

This special edition of ISIS *focus*, entitled *Global South's climate agenda*, commemorates that very spirit. It rejects the silencing of the global majority by imperialist powers and centres Malaysian, Southeast Asian and broader Global South voices in articulating not just our challenges but also our demands for equity, justice, dignity and a sustainable future.

Let it be said that the struggle for climate justice will not end in ruin. It is a continuous pursuit, rooted in resilience and driven by the unwavering conviction that equity must prevail across all strata of nature and society. Though odds on the multilateral arena remain stacked against the Global South, we must continue to press on with steadfast resolve not only for the sake of the most vulnerable but for the rightful accountability of those who hold historical responsibility of our present circumstances.

May this publication invoke the strength of the Global South in relentlessly confronting the common adversary of injustice against our people, planet and collective future. ■

Brazil-Malaysia climate cooperation towards COP30

The strategic relationship between Brazil and Malaysia draws on its ties to strengthen climate action and implementation

HE Daniella Ortega Menezes

Brazil and Malaysia share several key characteristics – both are megadiverse, tropical, developing, neutral and peaceful nations. Under the leadership of President Luiz Inácio Lula da Silva and Prime Minister Anwar Ibrahim, the two countries also align on domestic and foreign policy priorities. Domestically, they aim to promote social inclusion, reindustrialisation and sustainable economic growth. Externally, they pursue a universalist foreign policy that, amid a complex global environment, maintains a strategic focus on the needs and perspectives of the Global South.

Over the past three years, bilateral relations between the two countries have entered a particularly dynamic phase, with intense high-level exchanges and a broadened agenda, covering political, economic and environmental areas, as well as new fields, such as energy, health and science, technology and innovation. Within this context, climate change has emerged as a central pillar of the relationship, reflecting a renewed political will to work together to face one of the greatest challenges of our times.

The cooperation at the United Nations Framework Convention on Climate Change (UNFCCC)'s Conferences of the Parties (COP) illustrates this evolving partnership. At COP28 in Dubai, in December 2023, the environmental and foreign ministers of Brazil and Malaysia met and underscored how climate issues were central for both countries. On that occasion, a joint statement was signed laying the groundwork for sustained institutional cooperation across multiple government sectors. Of the nine paragraphs, five addressed environmental cooperation, including forests, energy transition, biodiversity and coordination under the UNFCCC – reinforcing the importance of climate diplomacy in the bilateral agenda.

Brazil and Malaysia pursue a universalist foreign policy that, amid a complex global environment, maintains a strategic focus on the needs and perspectives of the Global South.

Since then, concrete steps have followed. In August 2023, Malaysia joined the *United for Our Forests* communiqué, launched in Belém by Brazil and other tropical forest countries. The instrument highlights the importance of coordination among developing countries in global discussions on tropical forests and climate finance. Brazil and Malaysia have also acted jointly in various forums, such as the United Nations Forum on Forests and the Biodiversity COP, and have aligned with like-minded partners in expressing concerns over trade-linked environmental measures.

Financing forests, fuelling futures

Malaysia is a key supporter of Tropical Forests Forever Facility (TFFF), an initiative to be officially launched at COP30 in November 2025, which aims to establish a new global financing mechanism for conserving the world's tropical forests. The ambition is to create an international investment fund of US$125 billion, which will be used to provide annual payments to tropical forest countries for the environmental services their forests provide, notably on climate, biodiversity and water.

TFFF is a paradigm shift: historically, finance for forests has been mostly project-based, short-term and insufficient. The TFFF is offering a new way forward, where conservation meets capital generation. With a long-term perspective and as a complementary instrument to existing mechanisms, it will operate by mobilising

philanthropic, public and private capital, then reinvesting these resources in a diversified investment portfolio. Revenues generated by the TFFF will reward tropical forest countries, making the preservation of forests a viable and reliable economic model.

At the invitation of the Brazilian Presidency of the G20 in 2024, Malaysia played an active role in the Bioenergy and Bioeconomy Initiative and the Environment and Climate Sustainability Working Group. More importantly, the joint statement from President Lula and Prime Minister Anwar Ibrahim, issued after their meeting during the G20 Summit in Rio in November 2024, reaffirmed the two countries' commitment to continue working together in this field. Both leaders also expressed support for a fair energy transition that reflects the realities of developing countries and committed to deeper engagement on biodiversity, sustainable energy and multilateral reform.

Bioenergy – particularly sustainable biofuels – is a clear area of complementarity. Brazil's five-decade experience with biofuels provides a basis for cooperation with Malaysia, where biodiesel mandates are already in place and a robust domestic industry is established, as well as with other ASEAN countries.

Brazil's experience ranges from the development of several technological routes for producing biofuels to the creation of regulatory frameworks, fuel-quality monitoring systems and support to research institutions, such as Embrapa and Petrobras Biocombustíveis. These elements are relevant for all tropical countries, as we seek to diversify our energy mix, especially through potential new-generation biofuels, such as sustainable aviation fuels, while ensuring energy security and economic growth. A bilateral energy dialogue is currently under consideration and could also be integrated into collaboration with regional and multilateral platforms, such as ASEAN and the Global Biofuels Alliance.

Partners in just transition

There is no single solution when it comes to energy transition. As home to important global players of the energy sector, Brazil and Malaysia are also ready to collaborate for the expansion of other renewable energy sources, including solar power, wind power and bioenergy, as well as in technologies for decarbonisation, such as carbon capture, utilisation and storage. Malaysian companies are already investing in the renewable energy market in Brazil, and actors in both countries can benefit from their mutual opportunities and knowledge.

Food security and sustainable agriculture are also promising areas for collaboration. Both countries face similar social and environmental challenges and can benefit from shared experience in building resilient, climate-adapted food systems that address nutrition and emissions simultaneously. Brazil's growing engagement in Southeast Asia, including trilateral initiatives on food safety, reinforces its commitment in this area.

By strengthening its relations with Malaysia on climate change, Brazil also reinforces its relationship with ASEAN. After becoming a Sectoral Dialogue Partner of ASEAN in 2022, the Brazil-ASEAN Sectoral Dialogue Partnership (2024–2028) identifies climate change mitigation and adaptation, forest conservation, and biodiversity as priority areas for practical cooperation.

In 2025, Brazil and Malaysia are leveraging Brazil's COP30 Presidency and Malaysia's ASEAN Chairmanship to expand their climate cooperation to regional and global levels. Malaysia's Chairmanship theme, *Inclusivity and Sustainability*, calls for stronger regional action on climate resilience, sustainable development, renewable energy and green finance.

Strategic coordination will be reinforced by President Lula's acceptance of Prime

Minister Anwar Ibrahim's invitation to attend the ASEAN Summit in Kuala Lumpur in October, nearly 30 years after the last visit of a Brazilian president to Malaysia and on the eve of COP30.

From commitment to action

Looking ahead to COP30, Brazil sees Malaysia's ASEAN leadership and the two countries' convergence on climate issues as key assets for the global "mutirão" (collective mobilisation) against climate change, as proposed by the Brazilian COP30 Presidency. As stated in letters to the international community from COP30's President, Ambassador André Corrêa do Lago, Brazil hopes that coordinated efforts move beyond pledges, reinforce multilateralism and turn agreed targets into results, including through ambitious Nationally Determined Contributions.

The road ahead requires urgent action: tripling global renewable energy capacity; doubling energy efficiency gains; transitioning away from fossil fuels in energy systems in a just, orderly and equitable manner; concluding the Just Transition Work Programme and strengthening climate finance. Most importantly, the climate agenda must connect to people's daily lives by accelerating adaptation and resilience efforts and ensuring broad participation in climate governance.

COP30 can benefit from the timely and strategic Brazil-Malaysia climate convergence. Through shared priorities and complementary capacities, this partnership is anchored not only in diplomacy but in implementation. It is indeed Brazil's hope that COP30 in Belém will mark a decisive collective step towards the effective implementation of existing climate commitments.

The choice of Brazil as host of COP30 reinforces that, despite all challenges, our focus should remain on implementation. Located in the heart of the Amazon region, the city of Belém embodies the intersection of climate, biodiversity and social justice. By bringing the world's attention to the rainforest and to the people who inhabit it, COP30 offers an opportunity to ground high-level decisions in concrete territorial realities and deliver measurable and effective outcomes.

"Looking ahead to COP30, Brazil sees Malaysia's ASEAN leadership and the two countries' convergence on climate issues as key assets for the global "mutirão" (collective mobilisation) against climate change.

HE Daniella Ortega Menezes
Ambassador
Embassy of Brazil in Kuala Lumpur

Saving multilateralism is not enough for saving the planet and the poor

The Paris Agreement's promise of a unified climate solution faces a harsh reality of injustices and inadequate action

Meenakshi Raman

When the Paris Agreement was announced 10 years ago in 2015, the world was euphoric, as it was the culmination of many years of protracted negotiations under the United Nations Framework Convention on Climate Change (UNFCCC). Following the collapse of the Copenhagen climate talks in 2009, the multilateral climate regime was viewed as having endured and ultimately prevailed. It took five intense years of negotiations to deliver the Paris Agreement at the 21st Conference of the Parties to the UNFCCC (COP21), which was no mean feat.

In the run-up to the accord, the North-South divide remained pronounced across numerous issues, particularly regarding the recognition of equity and the principle of common but differentiated responsibilities and respective capabilities. Tensions centred on how to reflect differentiated obligations between developed and developing countries. In the end, the Paris Agreement's provisions reflected a fragile and delicate outcome, which set out clearly the obligations of developed and developing countries, with differentiation clear in many provisions but somewhat blurred in some aspects, for instance, in the reporting arrangements under the enhanced transparency framework.

While many viewed the Paris Agreement as falling short of what was needed to save the planet and protect the poor, others argued that, given the prevailing political constraints, particularly a hostile United States Congress during Barack Obama's presidency, it represented the best possible outcome at the time and laid a foundation for greater ambition in the future.

The global stocktake (GST) under Article 14 of the Paris Agreement was viewed by many, especially the European Union, as the ambition rachet mechanism, where after a collective assessment of progress toward achieving the purpose of the Paris Agreement and its long-term goals, the outcome of the GST, as noted in its proposal, "shall inform Parties, in updating and enhancing, in a nationally determined manner, their actions and support, … as well as in enhancing international cooperation for climate action." The first GST took place in 2023 in Dubai at COP28, and the parties were required to submit their new Nationally Determined Contributions (NDCs) by COP30 in 2025 in Belem, Brazil. These NDCs will cover the time frame of 2031 to 2035, since the first NDCs covered the time frame of 2021–2030. According to the Paris Agreement architecture, the GST will be conducted every five years, and the next is due in 2028.

> **"Despite developing nations' disproportionate use of the planet's atmospheric space and longstanding promises to lead on climate action, many have fallen short. The burden of closing the gap cannot be shifted onto those who contributed least to the crisis and who now face the steepest challenges in adapting to the consequences.**

Also in controversy in Paris was the scope of the NDCs, with developed countries pushing the narrative that it should only comprise mitigation targets, while the Like-Minded Developing Countries (LMDC) advanced the position that NDCs are not only about mitigation. The LMDC's view eventually prevailed, with Article 3 of the Paris Agreement reflecting that NDCs are "a global response to climate change" and parties are to undertake and communicate "ambitious efforts", which

can include mitigation, adaptation and the means of implementation that are needed or to be provided.

A synthesis report of the latest NDCs is expected ahead of COP30, and it will likely confirm what many already fear: governments remain far off track in limiting global temperature rise to 1.5°C – or even 2°C – above pre-industrial levels. The report is expected to trigger renewed calls for greater ambition to close the emissions gap. This urgency is underscored by alarming findings from the World Meteorological Organisation, which reports that the past decade has been the warmest on record, and that there is a 70% probability that the five-year average temperature between 2025 and 2029 will exceed 1.5°C. These projections are not abstract – they signal a rapidly narrowing window to prevent irreversible climate damage and demand bold, immediate action.

Fair share of justice

The elephant in the room remains: who will bridge the global emissions gap?

Is it just to expect developing countries to shoulder greater responsibility when developed nations – historically the largest emitters – have yet to deliver their fair share of reductions? Despite their disproportionate use of the planet's atmospheric space and longstanding promises to lead on climate action, many have fallen short. The burden of closing the gap cannot be shifted onto those who contributed least to the crisis and who now face the steepest challenges in adapting to the consequences.

In the GST decision from Dubai, these concerns were noted, remarking "that the carbon budget consistent with achieving the Paris Agreement temperature goal is now small and being rapidly depleted and acknowledges that historical cumulative net carbon dioxide emissions already account for about four-fifths of the total carbon budget for a 50% probability of limiting global warming to 1.5°C".

The amount of carbon budget remaining for limiting temperature rise to 1.5°C (with a 50% probability) is 500 gigatonnes (Gt). According to a fair-share assessment by the Indian-based Climate Equity Monitor, for limiting the temperature rise to 1.5°C, the fair share of the remaining carbon budget for developed countries is 87 Gt carbon dioxide equivalent (CO_2e), if past emissions are not considered. If the total carbon budget is considered, then developed countries have to undertake negative emissions immediately. However, the analysis of NDCs shows that cumulatively, by 2030, existing developed countries will emit 140 $GtCO_2e$, exceeding their fair share of even the remaining carbon budget by 53 $GtCO_2e$. The Climate Equity Monitor's analysis also reveals that the developed countries' current climate mitigation efforts are insufficient for limiting the temperature rise to 1.5°C and overconsume the remaining carbon budget. This is made worse by factoring in the exit in 2025 of the United States from the Paris Agreement.

In the run-up to the adoption of the Paris Agreement, there were proposals from some developing countries (viz., India, Bolivia and Ethiopia) on the need for equitable access to atmospheric space in determining how the remaining carbon budget within a certain temperature rise threshold is to be shared on a per capita basis, taking into account historical responsibility. Such equity-based proposals did not see the light of day due to tremendous resistance from developed countries, especially from the United States, on the grounds that no international agreement can dictate a top-down approach to emissions cuts.

In Paris in 2015, the only consensus possible was through the acceptance of a bottom-up approach, which paved the way for NDCs, under which each country would pledge what it can do voluntarily without any methodology

to assess if such reductions are consistent with equity or fairness. In fact, analysis by serious academics and progressive civil society groups have pointed out that rich countries are not doing enough at all and are very far away from what is needed to limit temperature rise.

Instead of focusing on what emission reductions ought to be from a fair-share perspective in order to keep within the remaining carbon budget in an equitable way, at COP 26 in 2021, the United Kingdom presidency pushed the net-zero mantra for all countries, which allows developed countries to get away with targets that amount to doing too little too late and passes on the responsibility to developing countries to do the heavy lifting, without commensurate finance and technology transfer. The Paris Agreement provides for a global aspiration of balancing emissions and sinks by mid-century, and not a country-by-country net-zero target.

Such net-zero announcements have drawn much flak from some developing countries and climate justice groups for being unambitious, not going far and even dubious in the case of some. These groups have called for "real zero" and not "net zero", starting first with developed countries, which must also be responsible for the provision of financial support for developing countries to head in that direction.

Many of these net-zero pledges are not grounded in deep decarbonisation and rely heavily on "nature-based solutions" as sinks to sequester carbon emissions. Many rely on carbon markets to deliver carbon offsets, mainly in developing countries. What offsetting means is not a reduction of emissions domestically but paying developing countries to reduce emissions in their countries, as it is seen as being more "cost-effective", and buying the carbon credits to offset the emissions generated in the developed world.

With or without carbon offsetting, such pledges create a huge demand for sinks mainly located in the forests, wetlands and grasslands in developing countries. What seems clear is that the quantity of the sinks needed would exceed the sequestration capacity of the planet by several-fold. This will have negative implications for developing countries, including for conflicts over land use, local communities and Indigenous Peoples whose lands and forests are being sought to solve the emissions problem of rich nations. Climate justice groups have referred to this as "carbon colonialism".

Beyond rhetoric to real action

In light of the United States' withdrawal from the Paris Agreement and the Trump administration's overt denial of climate change – coupled with the United States' aggressive promotion of fossil fuels, including pressuring both developed and developing countries through trade deals to increase fossil-based energy consumption – the global trajectory has veered dangerously toward climate catastrophe.

Like a schoolyard bully whose actions threaten the collective well-being, such behaviour demands a unified and forceful response from the international community. Yet, at the Bonn climate talks in June this year, the broader developed world failed to demonstrate meaningful commitment to renewed cooperation with developing countries.

Instead, they continued to dilute their responsibilities and evade their obligations, particularly in the critical area of climate finance – undermining trust and jeopardising the prospects for equitable global climate action.

The assertion that wealthy nations lack adequate financial resources is untenable – particularly when substantial funds are readily mobilised to support arms sales to Israel amid its devastating genocide in

Gaza and to expand military defences and security infrastructure globally. This stark contrast exposes a troubling prioritisation of geopolitical interests over planetary survival. Meanwhile, climate impacts continue to escalate, with extreme events, such as heatwaves, droughts, wildfires and floods, disproportionately affecting vulnerable populations. In this context, developing countries must urgently focus on adaptation and on addressing loss and damage.

This is precisely why COP30 in Brazil must centre the priorities of the Global South. The spotlight must fall squarely on the provision of climate finance from developed to developing countries – a binding obligation under the Paris Agreement. It must also advance meaningful support for just transitions, scale up adaptation efforts and deliver concrete funds to address loss and damage. Anything less would be a betrayal of climate justice.

It is no longer sufficient to merely invoke the need to save multilateralism. What is at stake is far greater – we must deliver on saving the planet and protecting the world's most vulnerable. This demands genuine, transformative solutions rooted in international cooperation, not the tired cycle of blame-shifting and rhetorical sleight of hand. The time for smokescreens and symbolic gestures has passed; what is needed now is bold, accountable action that prioritises justice, equity and survival.

“

It is no longer sufficient to merely invoke the need to save multilateralism. What is at stake is far greater – we must deliver on saving the planet and protecting the world's most vulnerable. This demands genuine, transformative solutions rooted in international cooperation, not the tired cycle of blame-shifting and rhetorical sleight of hand.

Meenakshi Raman
Head of Programmes
Third World Network

Energy transition needs data-driven pragmatism

Malaysia's net-zero push drives major energy reforms, but success hinges on harnessing all viable solutions

Dhana Raj Markandu

Malaysia aims to achieve net-zero greenhouse gas emissions by 2050, with the 2023 National Energy Transition Roadmap (NETR) spearheading energy sector decarbonisation. NETR outlines a broad portfolio of 69 key initiatives across six technological levers and five cross-cutting enablers, and it estimates that up to RM1.3 trillion in cumulative investment will be required. Key measures for the power sector include raising renewable energy (RE) installed capacity from 25% to 70% by 2050 and phasing out coal power plants by 2044, which are expected to deliver substantial emissions reductions. Despite these advancements, fossil fuels are still projected to make up 77% of Malaysia's total primary energy supply in 2050. This reflects the country's continued reliance on oil and gas – not only for electricity but also for transport and industry – and highlights the magnitude of the broader energy transition challenge.

NETR's optimistic net-zero outlook – framed through an energy-centric lens – is tempered somewhat in Malaysia's 2025 Long-Term Low Emissions Development Strategy (LT-LEDS), which expands the decarbonisation scope across other economic sectors. LT-LEDS acknowledges that the country's current low-carbon trajectory, shaped by policies introduced from 2023 to 2024, may fall short of achieving the 2050 target. While total investment requirements could rise to RM1.8 trillion to support economy-wide low-carbon initiatives, net emissions are projected to decline by only 26% between 2019 and 2050. This would leave 86 million tonnes of carbon dioxide equivalent ($MtCO_2e$) still to be abated, or a 30% gap to net zero. LT-LEDS suggests that bridging this emissions gap through a transformational shift would require an additional RM800 billion, raising the cumulative investment ceiling from 2023 to 2050 to RM2.6 trillion.

The push for a low-carbon economy demands innovative policy interventions and ambitious infrastructure investments to decouple societal development from fossil fuel dependence. Yet a frequently overlooked reality is that, despite the scale of these efforts, Malaysia will continue to rely heavily on its natural carbon sinks to sequester about 200 $MtCO_2e$ annually, or roughly 70% of total emissions, in the decades ahead to stay on track for its net-zero aspirations. This reinforces the need to strike a balance – not only by mitigating emissions at their source, but also by safeguarding the ecosystems that remove them from the atmosphere.

“

Malaysia will continue to rely heavily on its natural carbon sinks to sequester about 200 $MtCO_2e$ annually, or roughly 70% of total emissions, in the decades ahead to stay on track for its net-zero aspirations. This reinforces the need to strike a balance – not only by mitigating emissions at their source, but also by safeguarding the ecosystems that remove them from the atmosphere.

Unpacking nuances in data

Policy roadmaps, by necessity, tend to spotlight headline targets and key objectives to build momentum and drive long-term action. While this high-level framing is essential for aligning stakeholders and mobilising investment, a closer examination

of the underlying data can unveil deeper insights that help augment and optimise the strategies deployed.

Malaysia's net-zero aspiration offers a useful case in point. Both NETR and LT-LEDS derive their recommendations from Malaysia's Fourth Biennial Update Report (BUR4) to the United Nations Framework Convention on Climate Change. Published in 2022 and incorporating data up to 2019, BUR4 reports that Malaysia emitted 330 $MtCO_2e$ of greenhouse gas and absorbed 215 $MtCO_2e$, leaving a net gap of 115 $MtCO_2e$ to reach emissions neutrality.

However, it is crucial to recognise that both emissions and removal figures are imprecise estimates that are subject to uncertainty. Applying the margins of error defined in BUR4 suggests that Malaysia's actual gap to net zero could be up to 80% higher than the baseline value of 115 $MtCO_2e$. Acknowledging this variance opens the door to consider broader and more flexible decarbonisation pathways that not only to meet the minimum thresholds of declared targets but to go beyond them in order to accommodate the inherent uncertainties in the data.

Within this broader context, the power sector warrants particular attention. As the dominant source of Malaysia's emissions, decarbonising electricity generation will play a pivotal role in shaping the country's trajectory. Since coal accounts for roughly 20% of national emissions, eliminating it from the energy mix – now a firm policy commitment – represents the single most impactful lever available. However, phasing out this major source of emissions also means retiring over 40% of the country's large-scale, stable and dispatchable electricity supply – a critical driver of economic activity.

NETR aims to gradually replace the electricity currently supplied by coal with a significant scale-up of solar, supplemented by gas and hydropower along with nominal contributions from bioenergy. This approach lays a solid foundation to kickstart Malaysia's energy transition, anchoring it in technologies that are already familiar and integrated within the existing system. However, as always, the devil is in the data. Analysis suggests that, even after factoring in energy efficiency savings and improved utilisation of NETR's proposed electricity mix, the current pathway could still result in a power supply shortfall of about 40% by 2050. Therefore, relying on solar, gas and hydropower may not be sufficient to meet the rising energy demand driven by continued socio-economic development, accelerating electrification and expansion of data centres.

Keeping all options on the table

Malaysia's future net-zero gaps and electricity supply constraints illustrate potential scenarios that can emerge when foundational data is subjected to deeper scrutiny. To manage these latent risks in an increasingly volatile geopolitical and economic landscape, plans and roadmaps must remain adaptive – serving as living documents rather than being set in stone. The slew of measures introduced in recent years signals that policymakers acknowledge the scale of the challenge and are prepared to respond accordingly.

The ASEAN Power Grid initiative, for instance, has been a cornerstone of Malaysia's agenda as ASEAN Chair in 2025. Its advancement would unlock new sources of clean electricity, spur the green economy and facilitate regional decarbonisation. In parallel, there is clear recognition that complementary technologies, such as utility-scale batteries and pumped-storage hydropower – although not primary sources of clean electrons themselves – serve as essential solutions to mitigate the intermittency associated with RE. Additionally, the push for clean hydrogen as an alternative energy carrier in hard-to-abate sectors, along with the expansion of low-carbon mobility solutions, further broadens the scope of decarbonisation beyond electricity generation.

“Energy, at its core, is a field grounded in the laws of physics and the principles of engineering. As such, the success of the energy transition hinges upon unbiased, pragmatic and data-driven assessments of future pathways – ones that embrace a diverse range of solutions rather than those that succumb to polarised narratives or technology tribalism.

However, all forms of energy production come with trade-offs. While RE may have low operational emissions, the infrastructure that converts sunlight, wind and water into electricity are the products of energy- and resource-intensive mining, manufacturing and construction processes. The diffuse nature of many RE sources also implies that more raw materials and land will be required to match the output of energy-dense fossil fuels. With climate change increasingly influencing weather patterns, it is also worth pondering if over-reliance on weather-dependent sources, such as solar and hydropower, could pose risks to Malaysia’s energy security.

As the shift to a new energy paradigm accelerates, the principles of a just transition cannot be ignored. Means to safeguard the communities and livelihoods anchored around traditional energy hubs, such as oil and gas refineries or coal-fired power plants, remain nebulous. While both NETR and LT-LEDS quantify the potential for employment growth in the green economy, they fall short in articulating the quality and nature of these emerging roles. Many fossil fuel jobs that are highly technical and vocational in nature, particularly blue-collar ones, may not have direct or equitable counterparts in the RE sector.

Stepping away from coal and scaling up RE are clear indicators that Malaysia is moving in the right direction. However, it is evident that RE alone will be insufficient to shoulder the full burden of the energy transition and must work in tandem with other large-scale, dispatchable and stable power sources. In this context, all decarbonisation options warrant due consideration, including those that may be divisive, such as nuclear energy and carbon capture for gas-fired power plants and industrial facilities.

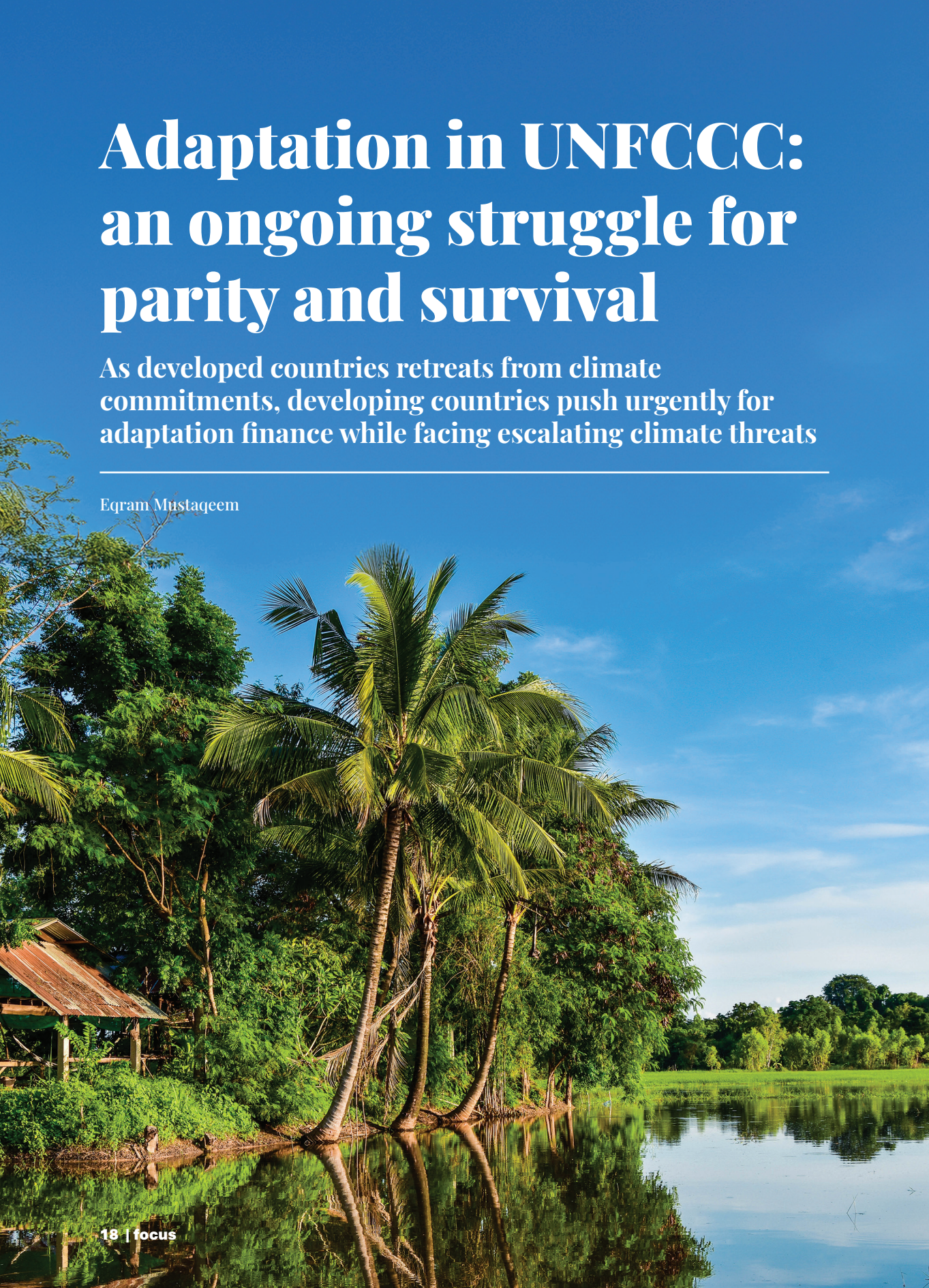
The urgency of the climate crisis has pushed energy literacy beyond technical and policy circles into mainstream public discourse. This encouraging development must now be matched by a rise in energy numeracy to facilitate critical contextualisation and objective understanding of data. Energy, at its core, is a field grounded in the laws of physics and the principles of engineering. As such, the success of the energy transition hinges upon unbiased, pragmatic and data-driven assessments of future pathways – ones that embrace a diverse range of solutions rather than those that succumb to polarised narratives or technology tribalism.

Dhana Raj Markandu
Former Senior Analyst
Institute of Strategic & International Studies Malaysia

Adaptation in UNFCCC: an ongoing struggle for parity and survival

As developed countries retreats from climate commitments, developing countries push urgently for adaptation finance while facing escalating climate threats

Eqram Mustaqeem



The climate crisis confronting humanity today can be traced directly to human-induced carbon emissions, which began with the Industrial Revolution and our ability to harness coal as a source of energy. This initial reliance on coal paved the way for a broader dependence on fossil fuels. While fossil fuel-powered development has critically enhanced global productivity, lifted billions out of poverty and improved the quality of life for many, it has also had the unintended consequence of raising global temperatures, propelling the world into the climate crisis we now face.

Given this legacy, it was only natural that the world's first response to climate change focused heavily on the need to reduce rising carbon emissions. However, when the United Nations Framework Convention on Climate Change (UNFCCC) was established in 1992, it was not solely mitigation-centric. While stabilising greenhouse gas concentrations was a core objective, the UNFCCC also explicitly recognised the importance of adaptation. From the outset, the UNFCCC emphasised the need to take action to adapt to climate impacts, making adaptation a key and integral part of the international climate regime, alongside mitigation.

However, failure by the developed countries to fulfil their climate obligations has brought the world to its current predicament. The harshest impacts of climate change are being borne by the most vulnerable.

The Global South's persistent advocacy for enhanced adaptation action transcends technical negotiations; it is a fight for justice and survival.

Developing countries contributed the least to the problem, yet now face the gravest consequences of climate change. In this context, the Global South's persistent advocacy for enhanced adaptation action transcends technical negotiations; it is a fight for justice and survival. The disruptive impacts threatening the prosperity and security of billions are a direct outcome of emissions trajectories shaped by the unchecked and unfettered growth of the Global North at the expense of the Global South.

Yet, ironically, developed countries have often shown palpable disinterest, or even resistance, when the adaptation agenda is advanced in the UNFCCC, often obstructing crucial negotiations despite their historic responsibility.

Enabling adaptation is a question of survival

The foundational text of the UNFCCC in Article 4.4 clearly establishes that developed countries are obliged to assist developing countries in meeting the costs of adaptation. The Paris Agreement reinforces this obligation in Article 9.1, which mandates that developed countries provide resources to assist developing countries with both mitigation and adaptation, emphasising that a balance should be struck between the two. It is clear that support, particularly financing, is the critical enabler for adaptation action in the developing world.

Despite such obligations, developed countries have long reneged on their responsibilities to provide adequate adaptation support, delivering far less finance than needed. This shortfall has created a substantial deficit. The Global Stocktake decision from the 28th Conference of the Parties of the UNFCCC (COP28) in 2023 estimated the adaptation finance needs for developing countries at US$215–387 billion annually up to 2030; however, the United Nations Environment Programme

> **For the GGA to truly make a difference, the indicators must not only capture progress but also highlight the financial and technical shortfalls faced by developing countries so they can be effectively addressed. As past negotiations illustrate, such an outcome can only be achieved through the persistent and strategic unity of developing countries.**

reported that the adaptation finance gap stands at US$187–359 billion per year, and without securing significant new and additional finance, this deficit will likely grow substantially, as developing countries face increasing climate-induced disasters.

Although needs and deficits keep rising, developed countries continue to demonstrate reluctance in fulfilling their climate finance obligations. This is starkly illustrated in the New Collective Quantified Goal decision at COP29, targeting to mobilise US$300 billion of climate finance annually by 2035, which falls far short of the actual needs of developing countries and dilutes the responsibilities of developed countries. The decision expands the definition of climate finance to count aid flows from multilateral development banks and private finance mobilised by developed countries, effectively counting already existing financial flows, as well as market rate debt and commercial instruments, as climate finance rather than providing new, additional and grant-based public finance. This approach undermines the principle of climate finance as a form of reparative support for the Global South and shifts the burden onto developing countries, risking deepening their financial indebtedness.

Furthermore, the private sector has never been big on adaptation financing. Most adaptation finance comes from public sources due to high risk and uncertain financial returns. Currently, the private sector contributes less than 3% of total global adaptation finance, as adaptation projects do not generate revenue streams and rates deemed attractive to private investors.

As a result, developing countries face a dire predicament. Already vulnerable to a climate crisis they contributed the least to, they are now forced to incur debt to finance adaptation for their own survival. Developed countries continue to shirk their obligations, shifting much of the responsibility to the private sector, which remains unwilling or unable to fill the funding gap, or else filling it at a steep cost.

Significant strides for adaptation despite resistance

The persistence of developing countries has been the primary driver of progress in the adaptation agenda within the UNFCCC negotiation space. Despite consistent attempts by developed countries to downplay adaptation, developing countries have continuously ensured that adaptation remains an integral part of the UNFCCC.

Developed countries initially sought to restrict the scope of Nationally Determined Contributions (NDCs) to focus exclusively on mitigation measures, deliberately excluding adaptation and financial support components. This move effectively minimised the role of adaptation. However, vigorous opposition from developing

countries ensured that adaptation, along with means of implementation, was retained as an essential part of NDCs, recognising its critical importance to a balanced and effective climate response.

Since COP27, negotiations on National Adaptation Plans (NAPs) have effectively stalled, with developed countries uniformly refusing to engage on developing countries' calls for public funding to support NAP implementation. This impasse severely threatens to hinder critical progress on delivering adaptation action at the national level.

In contrast, developing countries have continually pushed for adaptation prioritisation. Their advocacy led to the establishment of the Global Goal on Adaptation (GGA), entrenched in Article 7 of the Paris Agreement, which aimed at providing a long-term, ambitious adaptation goal similar to the mitigation 1.5°C threshold limit goal.

The GGA provides a framework for holistic and ambitious adaptation action by 2030 and beyond, emphasising commitments outlined across seven thematic targets covering water supply, food production, health services, infrastructure resilience, ecosystem protection, poverty eradication and preservation of cultural heritage. It also sets four dimensional targets aligned with the adaptation cycle: 1) impact, vulnerability and risk assessment; 2) planning; 3) implementation and 4) monitoring, evaluation and learning. The latter goals aim for all parties to have country-driven NAPs by 2030 and to have progressed substantially in implementing them.

The notable advances and ambition in adaptation seen today owe much to the relentless struggle of developing countries to elevate adaptation on the global agenda despite persistent resistance from developed countries.

Adaptation at COP30 and beyond

COP30 in Belém in November 2025 will mark a critical checkpoint for the global adaptation agenda. The parties are expected to finalise the comprehensive set of indicators to measure progress towards the GGA. If properly designed, these indicators could serve as a mechanism to track adaptation efforts, identify gaps and clarify needs, hence enabling robust action.

The diagnosis is unmistakable: the provision of public finance from developed to developing countries remains the most critical enabler for meaningful adaptation action, an area that has been persistently deficient. For the GGA to truly make a difference, the indicators must not only capture progress but also highlight the financial and technical shortfalls faced by developing countries so they can be effectively addressed. As past negotiations illustrate, such an outcome can only be achieved through the persistent and strategic unity of developing countries.

Eqram Mustaqeem
Research and Policy Analyst
Third World Network

Making cents of loss and damage finance

When it comes to loss and damage finance for the Global South, the Global North is proving that less is less

Farhana Shukor

Loss and damage refers to the adverse impacts of climate change despite, or in the absence of, mitigation and adaptation efforts. It encompasses both economic and non-economic losses, spotlighting the intangible aspects of humanity impacted by climate change. With this in mind, it would be in the collective interest to properly address this phenomenon, but it is not. Loss and damage finance's long history in international climate negotiations is marred by the Global North's continuous resistance to face historical obligations. These delays translate to the ongoing lived reality of the Global South, imposing a burden that perpetuates injustice.

Predating the United Nations Framework Convention on Climate Change (UNFCCC), an insurance scheme was proposed in 1991 by Vanuatu and other Small Island Developing States to support countries facing severe sea-level rise due to climate change. Although the proposal was not adopted, loss and damage advocacy persisted. Significant progress was achieved in addressing this issue when its mechanism was established in 2013, followed by its recognition as Article 8 of the UNFCCC's Paris Agreement. Another breakthrough came at the 27th Conference of the Parties to the UNFCC (COP27) in 2022 with the agreement to establish the Fund for Responding to Loss and Damage (FRLD), a decision driven by the unity of the negotiating bloc of Group of 77 and China and the global solidarity of civil society. The FRLD began its operationalisation a year later at COP28, but a lack of political will from the Global North continues to stall progress.

Short-changing the Global South

Currently, financial pledges from developed countries fall short of the billions of dollars needed annually, resulting in ever-increasing losses and damages for the wider developing countries. According to the Loss and Damage Collaboration, loss and damage needs of developing countries amount to at least US$724.43 billion per year. To effectively address these needs, it has been reported that the FRLD must disburse a minimum of US$400 billion annually. However, as of July 2025, the FRLD has less than 1% of that amount in trust. This deficit is a political impediment rather than a financial one, as some in the Global North suggest. It reflects an implicit willingness for the Global South to bear the brunt of climate impacts, while also being asked to share the responsibility for addressing them.

Several interconnected issues compound the Global North's reluctance to provide sufficient funding. Firstly, the issue of financing loss and damage spotlights its link to the historical responsibility of the Global North. Their profitable head start in industrial development largely contributed to anthropogenic climate change, a responsibility they have consistently and continue to evade. Their evasion extends to their UNFCCC obligations to provide climate finance to developing countries, which they are attempting to challenge in current climate finance discussions.

“

Loss and damage finance's long history in international climate negotiations is marred by the Global North's continuous resistance to face historical obligations. These delays translate to the ongoing lived reality of the Global South, imposing a burden that perpetuates injustice.

Given that the Global North's advancement was at the expense of the Global South's development needs, the advocacy of loss and damage in the global arena forces the Global North to confront this historical debt. It is worth remembering that the Global South contributed the least to historical global emissions, yet they are the ones bearing the brunt of its impacts. From that lens, financing loss and damage is about repaying a long-overdue climate debt and necessitates confronting difficult aspects of how developed nations achieved their current prosperity.

Secondly, the Global North is concerned about potential legal ramifications arising from loss and damage. It has been feared that compensating for losses and damages caused by irreversible climate effects could be construed as an admission of legal liability, thereby triggering large-scale litigation and compensation claims. This apprehension has historically influenced the language in the Paris Agreement, which was carefully designed to prevent nations from being legally responsible for providing compensation. Similar efforts were made in the COP27 and COP28 outcomes surrounding loss and damage funding to pacify the Global North into continuing the discussions, yet their underlying anxiety persists.

A new dimension to this debate is the recent advisory opinion from the International Court of Justice on the right to a healthy and clean climate, which carries considerable legal weight and moral authority. The ruling clarifies the obligations of nations concerning climate change under international law and links human rights with environmental protection. This could strengthen the legal arguments for loss and damage by framing climate impacts as infringements on fundamental human rights, thereby intensifying the moral and legal pressure on developed countries to act.

Thirdly, the moral and legal dilemma faced by the Global North contributes to the increasing role of private finance in the discourse on financing mechanisms, as they are to share the responsibility of Global North countries. This is supported by the recent launch of the Seville Platform for Action at the UN's 4th International Conference on Financing for Development in 2025. The Seville Platform for Action's listed commitments indicate a push to mobilise public finance towards private finance instruments and encourage financial architecture reform that favours private finance.

While private finance can play a role in climate action by developing new technologies and financial instruments, its presence in discussions about climate funding, particularly for loss and damage, raises concerns. Private financing fundamentally represents the interests of shareholders and is profit-driven, which differ significantly from the interests of the people, represented by countries. These conflicting agendas could undermine the very purpose of financing for loss and damage, which is to provide justice and support to the most vulnerable rather than to generate profit. Existing limited funds already lead to unequal climate action capacities in developing countries, making them disproportionately vulnerable to climate impacts. This emphasises the critical need for comprehensive safeguards and guidelines for the involvement of private

Addressing loss and damage demands substantial financial commitments underscored by a fundamental shift in perspective among the Global North and its renewed commitment to historical responsibility.

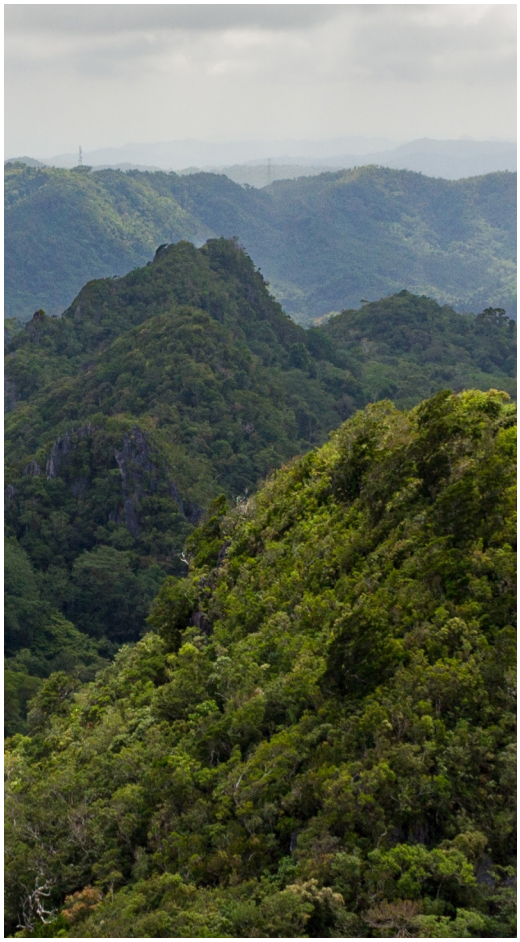
finance in both national and international finance architectures to ensure the well-being of communities.

From deficit to delivery

As countries prepare for COP30 in November 2025, the Global North and the Global South must take pragmatic steps to ensure signals on loss and damage in their Nationally Determined Contributions (NDCs) are clear and effective. The Global North must shift from apprehension to responsibility. Their NDCs should include unconditional commitments to loss and damage finance, surpassing vague pledges to provide clear and time-bound financial contributions that align with the needs of the Global South. Acknowledging their historical responsibility, developed nations should commit to providing funding primarily as grants to avoid additional debt burdens for developing countries.

Simultaneously, the Global South must focus on internal preparation and unified communication. NDCs should include detailed national response plans on loss and damage, particularly ones that articulate specific needs for finance, technology and capacity building. Admittedly, this detailed reporting will require robust technical assistance and grant-based funding to build local capacity and empower decision-makers, as well as local actors. The negotiating bloc of Group of 77 and China must leverage their unity to present a consolidated demand for a robust and operational FRLD, preventing geopolitical differences from weakening their voice at this critical juncture, especially since all developing countries are particularly vulnerable to the climate crisis.

The Global South has long endured the impacts of a crisis not of its own making. Hence, the path towards climate justice in addressing loss and damage is undoubtedly challenging and multifaceted. For the most part, it demands substantial financial commitments underscored by a fundamental shift in perspective among the Global North and its renewed commitment to historical responsibility. The Global North now must demonstrate genuine political will to acknowledge and repay the climate debt and to ensure that the promise of the FRLD translates into tangible and equitable support for those who need it most. Only then can meaningful progress be made towards climate justice.



Farhana Shukor
Policy Advocate
Loss and Damage Youth Coalition

Carbon markets and the Global South: opportunity or exploitation?

Few climate instruments are as controversial as carbon credit markets: some see a cost-efficient way to reduce or remove emissions globally and to help the Global South in the bargain, while others see a failure to deliver sufficient climate benefits, as well as inequitable, or even seriously negative, social impacts

Isa Mulder

Regardless of their contested track record, carbon credit markets are not going away anytime soon. With carbon markets under Article 6 of the Paris Agreement taking off, more and more countries globally will find their way to carbon markets, either as sellers or buyers of credits. Countries and communities in the Global South that have historically not been very active under the Clean Development Mechanism of the Kyoto Protocol, the predecessor to Article 6 carbon markets, or on the voluntary carbon market may enter this space in the hope of securing some financing for their mitigation efforts. But if we want to understand whether this hope is warranted or not, the role of carbon markets demands a profoundly critical examination of the theoretical arguments set against evidence from the real world.

Let us start with the argument that carbon markets can deliver cost-efficient emission reductions. In theory, this idea makes sense. When your goal is to lower global emissions, then for the planet, it will not matter much where you achieve those reductions, even though air pollution does have localised effects on local temperature and public health.

A carbon credit is meant to represent the reduction or removal of a tonne of CO_2 equivalent. In many cases, this credit is used to offset, or justify, continued emissions on behalf of the buyer, typically a highly polluting company in the Global North. And this is where it gets tricky. The assumed equivalence, in practice, is hard if not impossible to guarantee. It requires a mind-boggling amount of rules and obligations for a credit to truly represent a measurable tonne of carbon that is permanently reduced or removed, and that would not have happened without the sale of that credit. A peer-reviewed systematic assessment of one-fifth of all carbon credits issued to date, published in *Nature Communications*, underscored this difficulty: only 16% of analysed credits were found likely to have accurately reported their climate impact.

What is more, the market is not exactly designed in a way that the quality of carbon credits is the top priority of market players. Quite the opposite, participants in the market are motivated to create as many credits as possible at the lowest price possible, which often results in a skirting of exactly the requirements that underpin a credit's transferability. This was recently underpinned by an editorial published in *Science* on auditors, which are supposed to independently verify carbon credit outcomes but have a strong perverse incentive to appease project proponents.

Who pays and who benefits?

On the potential for carbon credits to deliver climate finance to the Global South, history offers a sobering lesson. If we look at what carbon markets have delivered to date, evidence suggests that these systems frequently fail to deliver promised benefits to developing nations and can even exacerbate existing inequalities. This is compounded by the opaqueness of the market, where intermediaries, such as traders and brokers, can hike up the price of a credit to such an extent that the amount received by the project developer or community at the project site is only a fraction of the price paid by the end buyer. Moreover, there is a glaring lack of evidence that benefit-sharing arrangements with local communities involved in carbon credit projects are even in place.

The role of carbon markets demands a profoundly critical examination of the theoretical arguments set against evidence from the real world.

It is also important to recall that buyers of carbon credits are rarely altruistic. The payment is not a donation without any strings attached. Most buyers are expecting a return on their investment, that is, the delivery of inexpensive carbon credits to offset substantial carbon footprints or to market polluting products as carbon neutral. In addition, delivering the underlying mitigation involves resources – often scarce land or labour – and incurs hidden costs in developing countries, where most projects are located, since project owners and local communities must conduct long-term monitoring for years or even decades to come. For these reasons and others, the UN body specialised in the economic interests of developing countries, the UN Trade and Development, also concluded in its most recent Least Developed Countries report that carbon markets do not constitute or replace climate finance.

If we take a step back, we can see that the premise of carbon markets also sidesteps the crucial concept of historic responsibility. The use of carbon markets allows nations with a significant legacy of emissions to purchase credits and potentially defer their own deep decarbonisation efforts, thereby avoiding their greater liability for the climate crisis.

Carbon markets place the onus for climate mitigation on the Global South: the valuable land there is dedicated to achieving emission reductions to offset ongoing emissions in rich countries, effectively allowing continued pollution rather than fostering fundamental systemic change. For wealthy countries with a large carbon footprint, domestic efforts will no doubt incur high costs, but if we want not only a green but also a fair and equitable future, they are unavoidable, and even more costly, in the long run.

Realpolitik

Despite these fundamental flaws, we cannot forget the reality we acknowledged at the beginning: carbon markets are here, and they are not going away. While we could demand a moratorium, it might be more fruitful to focus our efforts on damage control, as well as on critical but constructive engagement with the reality we find ourselves in. We not only have the opportunity but also the responsibility to demand a more equitable approach to carbon markets that delivers genuine and fair climate action. Concretely, the following asks are an important starting point for this.
First, robust rules that are upheld and independently verified, including conservative quantification and strong environmental and social safeguards, must be part of every carbon market framework.

Second, there must be elements to ensure that generating credits is not the only outcome of carbon market projects. There also needs to be fair benefit-sharing with the host country and local communities, delivering tangible co-benefits, including "mitigation sharing", through which the

> **"This is why, beyond well-needed adjustments, we also need to continue challenging the underlying structural issues and power imbalances upon which carbon markets are built. The global climate crisis demands urgent action, and the path forward – with or without carbon markets – must be rooted in justice and equity.**

climate benefits of carbon market projects contribute only to the mitigation efforts of the host country without offsetting someone else's ongoing pollution.

Third, upholding free, prior and informed consent for any project involving community land or resources is vital. Indigenous Peoples and local communities, as stewards of the land, should be given the opportunity to not only consent to projects but to take the lead and own the projects themselves.

It is crucial to acknowledge that while these elements are indeed needed, they are unlikely to be enough. Even with robust protections, the fundamental design and implications of carbon markets can still pose challenges to achieving true climate justice for the Global South. This is why, beyond well-needed adjustments, we also need to continue challenging the underlying structural issues and power imbalances upon which carbon markets are built. The global climate crisis demands urgent action, and the path forward – with or without carbon markets – must be rooted in justice and equity.

Isa Mulder
Policy Expert on Global Carbon Markets
Carbon Market Watch

Malaysia's biodiversity at risk without structural reform

Despite growing interest, Malaysia's nature-positive pathway must ultimately reckon with the economic engine driving today's ecological crisis

Ahmad Afandi Nor Azmi

In the age of the Anthropocene, the pursuit of sustainable development is a tall order, deeply intertwined with how the world addresses the triple planetary crisis of climate change, biodiversity loss and pollution. Yet, the impacts and responses are far from uniform, as they are felt more acutely in developing countries of the Global South, which holds the bulk of the world's biodiversity but faces vastly different circumstances and capacity to address these challenges.

Biodiversity is in freefall. Global assessments point to a staggering 73% decline in wildlife populations since 1970, catastrophic losses in freshwater species and wetlands, 20% lower species richness in human-modified ecosystems, and insect collapses even within protected areas. These are not abstract statistics but symptoms of planetary unravelling.

Nature is not a passive casualty but the bedrock of our survival. From pollination to flood regulation, water purification and disease control, ecosystem services are the invisible infrastructure of modern civilisation. They directly underpin more than half of the global gross domestic product (GDP), an estimated US$58 trillion (RM245 trillion). The collapse of nature is not just an ecological crisis, but also an economic and societal one.

"Without rethinking the scale and purpose of economic activities, the green transition risks becoming extractive in a different guise, one that further entrenches material throughput, concealing ecological harms and perpetuating inequality under the banner of sustainability.

In Malaysia, the impacts are felt both directly and indirectly. Despite its longstanding commitment to maintaining 50% forest and tree cover complemented by a web of policies, laws and plans, the crisis is far from averted. Deforestation and ecological degradation are increasingly linked to spikes in human-wildlife conflicts, more frequent and costly floods, as well as growing pressures on food systems that increase cost-of-living burdens. What may be seen as isolated events are symptoms of a deeper ecological imbalance.

Furthermore, natural ecosystems are not only integral to Malaysia's net-zero ambitions and building climate resilience, but also critical to managing transition risks, as global market and financial systems increasingly shift towards sustainability.

The language of restoration

Globally, the response to biodiversity loss has evolved. From the Brundtland Commission's call for sustainable development to the establishment of the Convention on Biological Diversity, decades of diplomatic efforts have culminated in the Post-2020 Global Biodiversity Framework. This sets an ambitious mission: to halt and reverse biodiversity loss and put nature on a path to recovery by 2030 with a variety of key targets, such as protecting 30% of land and sea.

This is the essence of the "nature-positive" vision, a shift from slowing down degradation to actively restoring the natural world. First introduced by international organisations and conservation groups, the term has gained traction across governments and businesses alike.

Malaysia has responded well by updating its biodiversity policy in 2023 to align with global

standards and is exploring how nature-positive goals can be integrated into its green economy framework. In addition, ecosystem services are recontextualised through many practices, such as nature-based solutions and ecosystem-based adaptation. Various concepts, such as planetary health, which connect the interlinkages between human health and the natural world, are also entering policy agendas and conversations.

Shifts in discourse, same engine

Currently, discourse surrounding the nature-positive concept is heavily focused on standardised metrics, methods and definitions. While this is understandable, as nature is complex and harder to quantify than carbon, the conversation risks becoming narrowly framed and obscuring the structural roots of ecological breakdown.

Despite rhetorical shifts, the system powering the current ecological crisis remains largely untouched. While GDP-driven growth and capitalism have contributed to the world's economy, trade and development, they have also hardwired a model of perpetual expansion and accumulation. Since the post-1950s industrial boom, natural capital has been degraded faster than it can regenerate, while waste and emissions continue to rise within finite ecological limits.

This growth-at-all-costs model emerged from the deliberate severing of the human-nature relationship. Ecosystems were reclassified not as kin, but as mere commodities to extract, consume and discard. The model was forged among industrialised economies and extended globally through colonial expansion, postcolonial development pathways and resource-export integration into the global market. Neoliberalism has further entrenched this logic, embedding GDP growth as an unquestioned policy goal.

The idea that technological solutions, such as renewable energy, geo-engineering or carbon markets, can decouple economic growth from environmental harm remains contested and unproven. Even low-carbon transition risks may become unsustainable if they remain tethered to capital accumulation and endless consumption.

For instance, expanding renewable energy may reduce emissions, but growthism will inevitably demand more materials and resources. In megadiverse countries, such as Malaysia, this could ultimately increase pressure to open up ecologically sensitive areas for the extraction of critical minerals and rare earths. Existing federal guidelines restricting rare earth mining to non-forest reserves could also come under more strain.

Without rethinking the scale and purpose of economic activities, the green transition risks becoming extractive in a different guise, one that further entrenches material throughput, concealing ecological harms and perpetuating inequality under the banner of sustainability.

Reconciling growth and nature

Despite this revelation, it is neither realistic nor fair to expect Malaysia, or countries in the Global South, to dismantle their GDP-oriented growth model overnight. Within today's globalised economic system, such a transition is extremely difficult in practice without strong international coordination.

If any countries are positioned to lead a fundamental shift with better fiscal space, it is the high-income economies of the Global North, many of which have exceeded their fair share of the global carbon budget and crossed several planetary boundaries. This is especially in the face of historical advantages accrued through centuries of resource extraction during a period of minimal environmental standards. In this context, exploring alternative models, such as doughnut economics or degrowth for these countries, is not only timely but increasingly necessary.

Nevertheless, developing countries, such as Malaysia, must begin shaping their own development pathways, ones that deprioritise GDP as the sole metric of progress and temper market mechanisms with public planning, ecological limits and social equity.

This does not imply disengagement from the international system. On the contrary, Malaysia and the Global South should continue to engage diplomatically, leveraging multilateral platforms to advocate for more equitable climate finance, technology transfer and fair implementation of sustainability-linked trade measures.

Domestically, Malaysia must reaffirm the role of the state as a steward of public goods. As the country moves toward a high-income status, its development ambitions must be matched by stronger environmental governance. The shift must come not only in rhetoric but also in institutional and policy reform with broad societal transformation. Key directions include the following:

- Developing alternative measures of progress to complement GDP, while ensuring these indicators are embedded in policy design, budgeting and institutional incentives, in order to meaningfully shift decision-making across the public and private sectors.
- Addressing biodiversity loss as market failure and policy shortfall by valuing ecosystem services, pricing externalities and regulating destructive practices, while ensuring strong social protection to avoid burdening households with higher living costs.
- Reconnecting with nature by learning from Indigenous and pre-capitalist worldviews that centre reciprocity, care and limits over-extraction.
- Advancing green industrial policies supported by strong regulatory frameworks, equitable distribution of benefits, and long-term ecological planning.
- Ensuring green and low-carbon initiatives are not captured by capital interests by designing climate and biodiversity projects that primarily serve ecological integrity and public good, rather than investor confidence or market profitability.

Delivering the above steps requires a fundamental societal and economic shift that many in power may resist. This is not unique to Malaysia; across much of the Global South, land and natural resources are deeply intertwined with political interests, where weak enforcement continues to enable rent-seeking at a huge expense to nature and people.

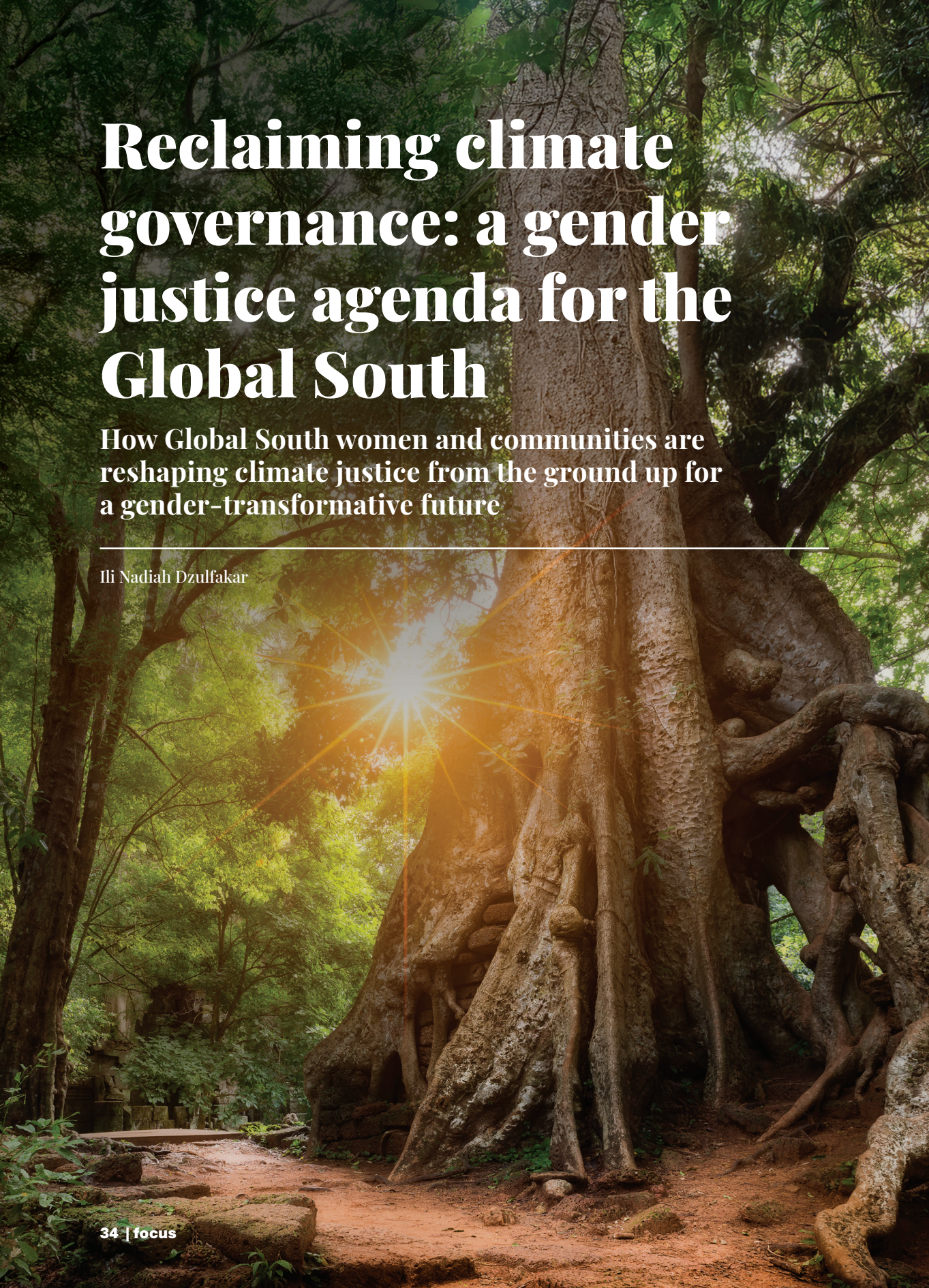
Without addressing the structural drivers of ecological crisis, the policy objectives of a nature-positive society will remain out of reach. Incremental changes and technical fixes will not suffice in the face of a GDP-oriented growth model and misaligned incentive structures among institutional and market actors. Hard choices must be made to ensure efforts to restore ecosystems and safeguard biodiversity succeed at the scale and speed required; the question, then, is whether we are ready to undertake this responsibility.

Ahmad Afandi Nor Azmi
Independent Consultant and Researcher
Greenglaive Consulting

Reclaiming climate governance: a gender justice agenda for the Global South

How Global South women and communities are reshaping climate justice from the ground up for a gender-transformative future

Ili Nadiah Dzulfakar



Across the Global South, women, girls and gender-diverse communities bear the brunt of climate change, even as they lead powerful responses. From floods that displace caregivers to heatwaves that increase unpaid care work, gendered dimensions shape every facet of climate emergencies. The narrative must shift from viewing women as victims to recognising them as agents of change. As the 30th Conference of the Parties (COP30) nears, the moment demands inclusive, justice-driven climate leadership rooted in care, redistribution and repair.

Gendered inequities and realities

In the Global South, the climate crisis is layered upon intersecting inequalities; colonial legacies, patriarchy and racialised capitalism. Women and marginalised genders face greater exposure to environmental risks, especially in roles tied to natural resource management, caregiving and informal labour. As documented in Malaysia, Indigenous women are key actors in community resilience; yet they are excluded from formal decision-making and lack secure land tenure.

In the Global South, the climate crisis is layered upon intersecting inequalities; colonial legacies, patriarchy and racialised capitalism. Women and marginalised genders face greater exposure to environmental risks, especially in roles tied to natural resource management, caregiving and informal labour.

This pattern echoes globally. In many regions, women's access to climate adaptation resources is constrained by discriminatory laws, gender norms and violence. Climate-induced displacement and water insecurity have been shown to increase gender-based violence, especially in low-income and conflict-affected areas.

And yet, these women are not passive victims. They hold deep ecological knowledge, manage communal resources and are often the first responders in times of crisis. A justice-based approach to climate action starts by recognising and resourcing their leadership.

Strengthening public care systems, such as water, sanitation, childcare and healthcare infrastructure, should be central to adaptation and resilience strategies. When care systems are neglected, climate shocks deepen existing gender inequalities and disproportionately burden women and girls.

Global governance: achievements and unfinished business

International climate policy has taken steps toward gender inclusion. The United Nations Framework Convention on Climate Change (UNFCCC)'s Gender Action Plan (GAP) and, most recently, the 10-year Enhanced Lima Work Programme adopted at the 29th Conference of the Parties (COP29) represent milestones. These frameworks encourage gender mainstreaming, data disaggregation and capacity-building.

Climate finance institutions, such as the Green Climate Fund and the Adaptation Fund, have adopted gender policies and now require gender action plans for project approval. While these are institutional gains, implementation remains uneven. Disbursements are skewed toward large-

scale projects led by international actors, with grassroots women's organisations often excluded due to the bureaucratic and technocratic nature of application processes and capacity gaps in many Global South countries, further limiting the transformative potential of these gender targets. Less than 2% of climate finance explicitly targets gender equality. A more accountable system requires intermediaries and nationally designated authorities to meaningfully engage civil society in project design and governance aligned with the principles of locally led adaptation. Funding authorities, such as the Fund for Responding to Loss and Damage, must also avoid replicating exclusionary practices of unjust access barriers and conditionalities.

Another major barrier lies in the absence of reliable, disaggregated data on gender and the environment. Despite efforts to include gender indicators in the Sustainable Development Goals (SDGs) and other frameworks, data coverage remains extremely limited. Without quality gender-environment data, governments cannot design responsive policies, funders cannot allocate resources effectively and advocates lack evidence to hold institutions accountable. Yet this gap is also an opportunity to invest in community-driven, Indigenous-led and justice-oriented data systems that are participatory and context-specific.

Civil society advocates continue to note persistent gaps between commitments and action. COP29 negotiations were marked by resistance toward intersectional language and human rights references. Some parties attempted to dilute gender language, reflecting the global rise of anti-rights, authoritarian politics. Advancing gender-responsive climate action also requires aligning targets across global frameworks, including the UNFCCC, the Convention on the Elimination of all Forms of Discrimination Against Women, SDGs, the Convention on Biological Diversity (CBD), and human rights mechanisms. Accountability still lags, with many countries treating gender as a checkbox exercise, with limited monitoring, enforcement or participation from those most affected. The 2025 revision of the GAP must move beyond token inclusion and toward ambitious, funded and intersectional commitments that redistribute power.

A critical area demanding urgent attention is the integration of gender equality into just transition frameworks. As countries chart pathways toward low-carbon economies, they often overlook the economic realities of women – especially in the Global South – who work across formal and informal sectors, such as agriculture, care work, community-based livelihoods and informal recycling, including plastic and e-waste. These roles are deeply connected to energy systems, particularly on the demand side: from fuel used in cooking and water collection, to waste management, mobility and domestic infrastructure. Yet they remain largely invisible in just energy transition (JET) planning, which tends to focus on extractive industries and large-scale reforms.

These women face heightened climate risks, while remaining excluded from labour protections, social security and economic decision-making. A gender-responsive JET must go beyond inclusion to redistribute resources, reduce the unpaid care burden and promote secure, dignified green jobs. It must also ensure that diverse knowledge – particularly from frontline communities – informs governance and investment. Transition assistance, including targeted reskilling and upskilling, must prioritise women in all their diversity, especially those transitioning from high-risk, informal or care-based sectors.

Movements at the forefront

While multilateral spaces stall, grassroots movements across the Global South are already advancing inclusive, gender-responsive climate action. Women are organising through agroecological farming cooperatives, land rights struggles,

community-led data initiatives, renewable energy access and water governance. These forms of collective organising are rooted in care, reciprocity and resistance. They centre lived experience, community power and intergenerational knowledge. These dimensions affirm that the climate crisis is inseparable from struggles over representation, justice and dignity. Crucially, these movements are also bridging local realities with global advocacy, engaging in various platforms, such as the UNFCCC and CBD, to demand accountability, climate finance and meaningful participation.

From representation to reparation

Approaches to gender and climate justice must move beyond inclusion to demand redistribution, recognition, representation and reparation that interrogate who caused the crisis, who benefits and who bears the burden. Reparative justice requires confronting the harms of colonisation, extraction and racial capitalism and shifting power and resources to those most impacted, while advancing models of care that defy patriarchal and extractivist models of development.

This vision includes the following:

- Mandatory gender budgeting in climate finance: Indonesia leads with gender-responsive climate budget tagging at national and sub-national levels. Its Just Energy Transition Partnership integrates gender into its economic agenda.
- Participatory governance structures: for Indigenous Peoples, free, prior and informed consent is a key standard. The Escazú Agreement is Latin America's first binding environmental treaty that enshrines participation, access to information, and protections for women and Indigenous environmental defenders.
- Investment in gender-responsive, community-driven data: in Uganda and Nepal, civil society has partnered with local governments to collect gender-disaggregated data on land, energy and climate, hence informing better policy.
- Institutionalise gender-climate leadership: various countries, such as Mexico and the Philippines, have established gender and climate focal points within their environment ministries to support cross-sectoral coordination and accountability. Gender mandates are also being integrated into national climate laws and budgeting frameworks, though implementation remains uneven.
- City-level initiatives: in Quito, Ecuador, for instance, urban planning integrates gender-responsive adaptation measures, such as safe public transport and climate-resilient public spaces.

Too often, the leadership, solutions and knowledge emerging from the Global South are sidelined and appropriated by dominant governance narratives shaped in the Global North. The road to COP30 presents an opportunity to centre gender-transformative climate action. But this requires courage: to challenge business-as-usual, to face uncomfortable histories and to trust those who have long been excluded.

Ili Nadiah Dzulfakar
Programme Director
Klima Action Malaysia (KAMY)

Indigenous Peoples' experiences and global climate governance

How Indigenous wisdom, meaningful participation and resistance can lead the path to a just global climate governance

Celine Lim of the Kayan People

"Tu'an."* I remembered the first time I was taught this word.

"Ta'na leng empayan dahak bukak," my grandmother explains. "Untouched old forest," my mother reiterated as we drove past a once *Tu'an* area devastated by deforestation. The conversation that ensued at the sight of the area led to my tattoo-clad and traditionally long-earlobe grandmother sighing deeply.

I now realise this was how many like me are consistently taught of this special tie that Indigenous Peoples have with their land and forest – knowledge that is transferred generationally and orally as we go through a day's event. Terminologies, such as *ta'na lo'* or *pulung* (customary forest reserve), *tagang* (customary riverine preservation), *adat* (customary governance), *tei kakah* (to go farming) and many more, became a part of the vocabulary. We soak them as we are sitting at the firewood stove, picking *pako'* (ferns) along our way through the jungle, sitting down together at the verandah of our longhouses or just driving through a once flourishing *tu'an* and *pui'doh* (grandmother) sighing deeply. This is generally the experience of a Sarawakian Indigenous person, especially for those who still keep the connection and proximity to their customary territories and language.

These vocabulary and expressions stem from familiarities of how forest, rivers and terrains function as rich interconnected ecological systems. Language of actions and repercussions, cause and effects and almost karmic-like dynamics that caution against acts of disturbing the balance and coexistence between nature and people according to the *adat*. This is known as *Tulah*, where punishment or disaster occurred to an individual or the collective as a result of violating customary norms or prohibitions.

Historically, *Tulah* was deemed animistic for the modern-thinking person and that directly affected the Indigenous personhood, who is now trying to navigate themselves into the new world of industrial modernisation. Surely, even Indigenous Peoples must want development and the ease that progress brings, so these "superstitious" old beliefs should be abandoned in the quest to assimilate.

But generations down the line, this very same world of industrial modernisation faces a crisis of its very existence. The push of conventional businesses for growth and its historically unbridled tenacity has led to devastating losses and damage over landscapes, communities and biodiversity all over the world. Whether it being actors of greenhouse gas emissions or the clearing of natural forests and extractions of the earth, the machineries of businesses worldwide clearly make them major contributors to our environmental and climate decline, leading to the crisis we are in.

It takes great effort from impacted communities, civil society, scientists and various parties all around the globe to bring awareness and challenge the way business-as-usual is conducted. Today, we

Indigenous Peoples' sustainability practice is crafted and refined through the ages and rooted deeply in the belief system that humans, as entities like animals, plants and the landscapes, must play our part in the whole that keeps us alive.

see the language of sustainability gaining momentum in various forms within the mainstream consciousness, which has led to attempts by industries to change their ways: environmental social governance, the United Nations Guiding Principles on Business and Human Rights, the incorporation of Sustainable Development Goals within business frameworks, deforestation-free supply chains and many other mechanisms. Whether or not these are just attempts at creating public relations to appease the market or are sincere concerns over the climate crisis, the public must not compromise and must continue to demand for the highest standards of collective responsibility of caring for the planet.

Indigenous stewardship

Before any of the mainstream languages of sustainability existed, Indigenous Peoples all over the globe had developed their own proven practices of sustainability in resource management and conservation. This is crafted and refined through the ages and rooted deeply in the belief system that humans, as entities like animals, plants and the landscapes, must play our part in the whole that keeps us alive. Humanity is then stewards, bound by interconnected duties and functions to care for our world.

Molong, the principle of "taking only what you need" practiced by the traditionally nomadic Penan of Borneo, is an example of a way of life with a strong sense of stewardship of nature. It aims to leave behind healthy forests for future generations by avoiding over-exploitation and ensuring that resources will continue to regenerate.

A 2023 study by the environmental economist Jonah Busch and environmental policy analyst Kalifi Ferretti-Gallon, regarded by Conservation International as the "largest and most comprehensive review yet of how to stop deforestation", compiled 320 peer-reviewed analyses and found that since 2018, the amount of research that indicate how deforestation is lower on Indigenous lands has more than doubled. Also, a recent article, published in the World Resource Institute's *Global Forest Review* regarding indicators of social governance issues in terms of Indigenous and community forests, stated the following:

> *It is estimated that 54 percent of the world's remaining intact forest landscapes are on Indigenous land. At least 40 percent of the global Key Biodiversity Areas (KBAs) lie within Indigenous Peoples and local community lands. This indicator includes lands under the customary stewardship of Indigenous Peoples, local communities and Afro-descendant peoples, regardless of whether official title is conferred or rights are recognised under statutory law.*

Despite significant research that solidifies the role of Indigenous Peoples as the world's best stewards of the forest, challenges are still strikingly present. Particularly, Indigenous populations in the Global South face significant marginalisation in international climate governance, experiencing disproportionate impacts from climate change, while lacking meaningful participation in decision-making processes. This marginalisation stems from various factors, including systemic discrimination, limited access to political and economic power, and a lack of recognition for their traditional ecological knowledge.

Amnesty International also reports that Indigenous Peoples' land ownership rights are widely abused. Defenders face violence and even murder when they seek to protect their lands. Many of them have been uprooted from their land due to discriminatory policies or armed conflict.

When it comes to the representation of Indigenous Peoples in climate governance, to quote the statement on the 29th Conference

of the Parties (COP29) by the International Work Group for Indigenous Affairs:

> *... President Ilham Aliyev used the tradition of the World Leaders Climate Action Summit, which kicked off the COP, to describe oil and gas as "a gift from God" and to criticise Western media for fake news when they chose to focus on the country's emissions profile (hint, it involves a lot of oil and gas) and not its new climate plan.*
>
> *While the over 1,750 fossil fuels lobbyists and executives likely celebrated this statement, Indigenous Peoples were largely sceptical about it. Despite a slight reduction compared to COP 28, this delegation represented eight times the number of Indigenous Peoples' delegates. Accordingly, although the representation and presence of Indigenous Peoples remains powerful, we continue to struggle to translate this advocacy into widespread adoption of COP decision texts.*

Calls for reform

So, where does this leave the Indigenous collective in exercising their rights to contribute, make decisions and genuinely participate in global climate governance, especially as the 30th Conference of the Parties (COP30) is just around the corner?

Here, I echo the call for action from fellow counterparts of more than 200 civil society and Indigenous Peoples groups that have put forward bold reform proposals to make the United Nations Framework Convention on Climate Change more effective at tackling the climate crisis ahead of COP30.

The reform centres around five pillars:

1. Restore power and equity
2. End the trade show and stop corporate capture
3. Move away from accountability-free blackbox negotiations
4. Respect and protect human rights
5. Align and strengthen international climate governance

And with that, the United Nations Department of Economic and Social Affairs delivered an urgent plea in the recently published State of the World's Indigenous Peoples 2025 report:

> While significant resources flow through climate initiatives worldwide, less than 1 per cent reaches Indigenous Peoples directly.
>
> *The report calls for a fundamental shift: not just to increase funding, but to change who controls it.*
>
> *Among its key recommendations are the creation of Indigenous-led financial mechanisms, formal recognition of Indigenous governance systems, and the protection of data sovereignty—ensuring communities control how knowledge about their lands and livelihoods is collected and used.*
>
> *Unless these systems are transformed, the report warns, climate action risks reproducing the same patterns of exclusion and dispossession that have long undermined both Indigenous rights and global environmental goals.*

In closing, protecting and respecting Indigenous Peoples' rights fundamentally is protecting the planet for all. In doing so, we can collectively stop and avoid Tulah from happening, for present and future generations.

** Indigenous terminologies and phrases are from the Kayan and Iban language.*

Celine Lim of the Kayan People
Managing Director
SAVE Rivers

ASEAN's race to fund a resilient future

ASEAN faces a massive climate finance gap, and scaling sustainable finance is critical to meeting the region's energy transition and resilience goals

Zayana Zaikariah

Mobilising finance for mitigation and adaptation remains difficult despite Southeast Asian economies being one of the most highly exposed regions to climate impacts. As a region poised to become the world's fourth-largest economy, vulnerabilities, such as sea level rise, drought and floods, threaten to derail growth and development gains. A widening financing gap could hamper implementations of ambitious emissions-reduction and resilience targets. Unfortunately, public budgets alone have proven unable to fund these actions. To supplement this, sustainable finance has become more critical, as it has the ability to channel both public and private capital towards climate goals.

Financial and structural challenges

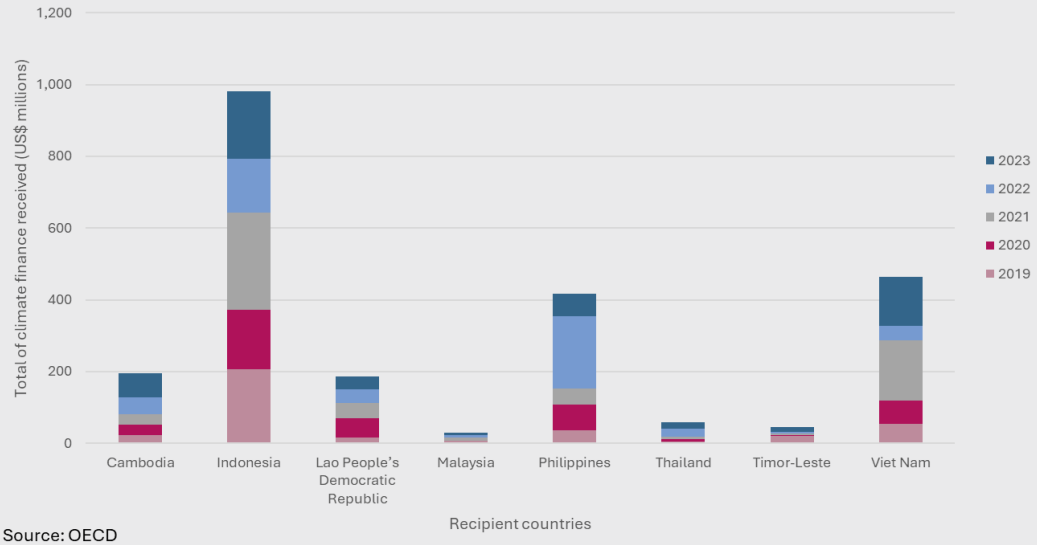
The climate finance gap in the region is enormous. It is estimated that Southeast Asia requires RM890 billion a year through 2030 for climate-resilient infrastructure. Similarly, ASEAN's overall investment gap is pegged at RM13 trillion for climate-adjusted infrastructure investment in Southeast Asia. Current investments fall short of those needs.

Developed countries' long-standing pledge in climate finance has barely been met once and the new pledge to raise it to US$1.3 trillion by 2035 has disappointed many in the Global South. With inflation and rising costs, the sum will shrink and leave a US$1-trillion gap to be filled by private sources. In other words, most climate investment will need to come beyond traditional public aid.

However, attracting private climate capital to ASEAN has proven to be quite challenging. Many countries still lack easy access to concessional finance due to policy constraints or credit ratings, and domestic financial markets are at varying stages of development. Some key hurdles observed are restrictive policies that limit access to affordable funds, the lack of private-sector involvement and the uneven distribution of climate finance across countries (Fig. 1).

Private investment in sustainable finance is expanding across ASEAN, but progress remains uneven. Some countries, such as Cambodia and Laos, are still in the early stages of market development and remain among the lowest recipients of climate

Fig 1. Indonesia, the Philippines and Vietnam are top recipients of climate finance
Climate finance provided to ASEAN countries, except Singapore and Brunei (US$ millions), 2019-2023



Source: OECD

finance (Fig. 1). In contrast, certain markets, such as Malaysia and Singapore, have advanced at a much faster pace. Investors frequently cite a shortage of bankable green projects and the high perceived risks in emerging markets as key barriers. Without effective de-risking mechanisms, many mitigation and adaptation initiatives are judged too risky or insufficiently profitable by conventional standards. This perpetuates a cycle in which the lack of successful project models undermines investor confidence, and the limited track record continues to constrain capital inflows.

Another structural challenge faced by ASEAN countries is the reliance on public funding. Governments and public finance supply the bulk of climate-related investment, but fiscal space is limited. The unavoidable Covid-19 diverted budgets, and many countries face high debt levels, which now constrain their ability to finance climate programs effectively. Thus, leveraging private capital is imperative. However, private investors often require clearer policies and better financial infrastructure to come in at scale. As such, countries with established policies and financial infrastructure often attract more private green investment, whereas less developed members struggle to access funds. This inevitably widens the regional disparity experienced.

To illustrate, Malaysia has relatively advanced financial markets and is proactive in its sustainable finance initiatives. It pioneered the world's first green Islamic bonds (sukuk) and was the first in the ASEAN region to introduce a Climate Change and Principle-Based Taxonomy (CCPT) in 2021 to guide banks in classifying green activities. Through this, Malaysian banks have committed over RM182 billion for environmental, social and governance-linked financing, setting a target of 50% new financing to align with climate-friendly or transition activities by 2026.

Despite these efforts, Malaysia projects a funding requirement of approximately RM1.3 trillion by 2050 to achieve its national energy transition and net-zero plans, which reflects the sheer scale of investments needed in Malaysia's climate measures. This example is echoed across ASEAN middle-income countries and even for those with strong frameworks, as they face a similar daunting gap between climate ambitions and available financing. The challenge is worse for less developed members, which rely more on external climate finance and have fewer domestic resources.

“Developed countries' long-standing pledge in climate finance has barely been met once and the new pledge to raise it to US$1.3 trillion by 2035 has disappointed many in the Global South. With inflation and rising costs, the sum will shrink and leave a US$1-trillion gap to be filled by private sources.

A common framework for ASEAN

To navigate these challenges, ASEAN developed its own classification system, the ASEAN Taxonomy for Sustainable Finance (ASEAN Taxonomy), for green activities to attract and direct sustainable finance. It is a common language used to define what is considered a sustainable or green economic activity in the regional context. With a unified taxonomy, ASEAN hopes to help investors avoid greenwashing by setting

clear benchmarks and to assure them that ASEAN-labelled green project meets environmental standards. It also aims to guide businesses on how to qualify their project as sustainable, which in turn boosts their access to green capital.

Most importantly, with the region's economic diversity, the ASEAN Taxonomy was designed with flexibility in mind through a two-tiered stacked approach: the foundation framework and plus standard. Countries are given these two options, where the foundation framework is a beginner-friendly guide, whereas the plus standard is a more advanced, science-based tier for those ready to adopt a technical screening criterion. As ASEAN members build capacity, more countries will move from the first approach to the second, tightening their definitions and applying more stringent standards onto businesses.

The common framework also dovetails the national efforts of at least six ASEAN countries, which are developing local taxonomies that align with the regional system. For instance, Malaysia's updated CCPT uses a principles-based approach consistent with the ASEAN foundation tier. Indonesia's Green Taxonomy also employs a similar classification, despite initially only focusing on mitigation efforts.

Over time, as data quality improves, the ASEAN Taxonomy should be updated to introduce stricter metrics. However, the challenge is to raise the bar gradually — too low and it risks complacency or greenwashing, but too high and members might ignore it. Thus far, the ASEAN Taxonomy has been a positive step to put theory into practice for ASEAN's sustainability pledges, but success will depend on implementation. Ensuring financial institutions use these guidelines in lending decisions and eventually harmonising with global standards must be the next steps.

Ways forward

To accelerate progress, ASEAN needs to decisively bridge the gap between climate ambitions and actions for member states and the region as a whole. The ASEAN Taxonomy could be improved by introducing other requirements for investors and businesses.

First, the ASEAN Taxonomy should be continuously developed by progressively tightening the criteria and expanding sector coverage in future versions. To reduce ambiguity, the introduction of a quantitative threshold is essential, while also maintaining the flexible entry-level for inclusivity. This should be done alongside harmonising national taxonomies with the ASEAN framework to avoid fragmentation. For example, Malaysia's CCPT and Indonesia's Green Taxonomy should eventually converge with ASEAN's definitions for seamless cross-border investment. A common taxonomy across ASEAN will not only increase investor confidence but also facilitate interoperability with other major markets' taxonomies and help global investors plug into ASEAN opportunities easily.

“

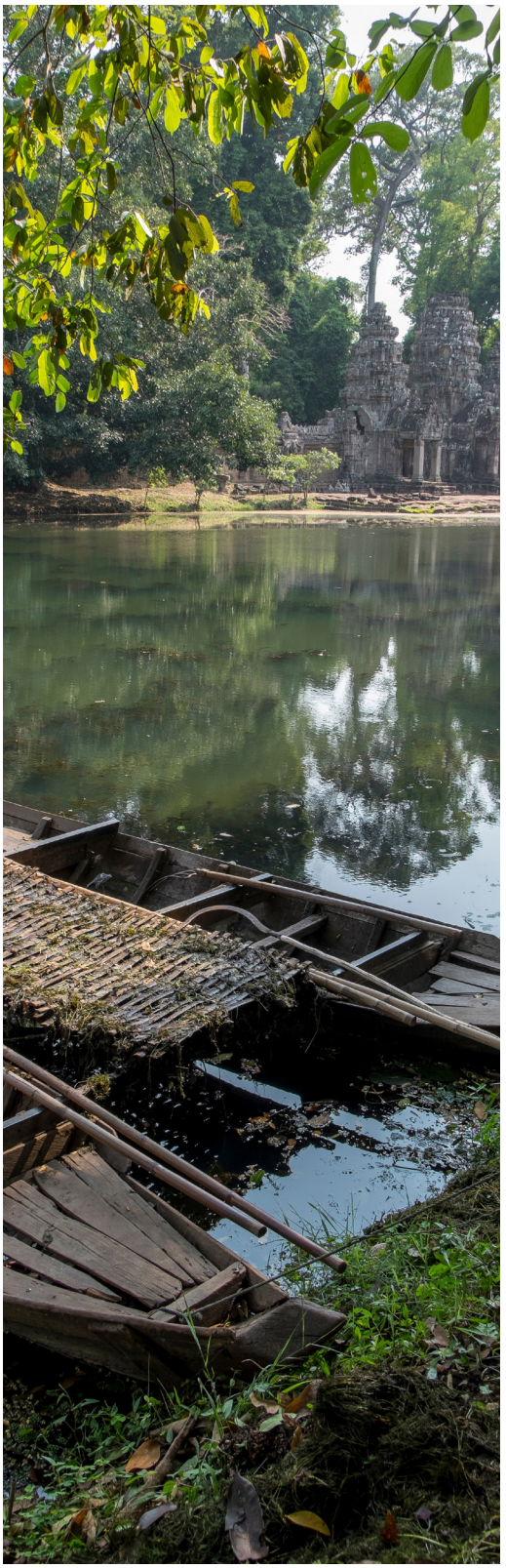
Thus far, the ASEAN Taxonomy has been a positive step to put theory into practice for ASEAN's sustainability pledges, but success will depend on implementation. Ensuring financial institutions use these guidelines in lending decisions and eventually harmonising with global standards must be the next steps.

Second, it should be a requirement for climate risks to be embedded in any and all investment decisions. This means using the best available science to map hazard projections. By pricing in physical climate risks now, ASEAN economies can avoid losses later and steer capital toward safer, resilient projects. For example, making it a requirement for climate scenario analysis to be done in any major new industrial zone or energy installation can ensure long-term viability in a changing climate.

Lastly, ASEAN should build on cooperative platforms to create a more integrated green finance market. This includes scaling up the ASEAN Green Bond and the ASEAN Sustainability Bond Standards by encouraging more issuers to use them, and possibly developing an ASEAN green bond fund to invest in such bonds across member countries, hence providing diversification to investors.

On the whole, ASEAN's sustainable finance agenda needs to be bold and coherent. Without sufficient investment, the region's development is at risk from climate shocks. But with coordinated action, ASEAN can turn its climate vulnerability into an opportunity for green growth. Sustainable finance provides the framework and tools to marshal resources at the necessary scale. In the broader context of the Global South's climate struggle, ASEAN's experience can offer a valuable blueprint for how developing regions might leverage harmonisation and financial innovation to fund their climate ambitions.

Zayana Zaikariah
Researcher
ISIS Malaysia



Shaping the Global South's environmental rights

ASEAN's new declaration has the potential to address past injustices and fight climate change

Edmund Bon Tai Soon, Toh Nyon Nyin and Umavathni Vathanaganthan

Stand-out year for environmental human rights

The triple planetary crisis encompassing climate change, biodiversity loss and pollution has compelled the international community to reassess the relationship between environmental governance and human rights.

In Southeast Asia, these challenges are evident: rising sea levels threaten millions in the Mekong Delta, typhoons in the Philippines undermine development and recurring transnational haze in Malaysia and Indonesia infringe on health, education and livelihoods.

The recent earthquake in southern Peninsular Malaysia further highlights the unpredictability of environmental risks. These realities demonstrate that environmental harm is also fundamentally a human rights issue, impacting on the rights to life, health, housing and food.

“

Centuries of colonial resource extraction and consumption, exploitative trade regimes and ongoing waste exportation have deepened structural inequalities between the North and South. Climate change has emerged as a significant issue, particularly as its effects have become more evident in the North.

In this context, 2025 is a pivotal year for ASEAN. The adoption of the Kuala Lumpur Declaration on ASEAN 2045: Our Shared Future and, correspondingly, the ASEAN Community Vision 2045 – along with its strategic plans – outlines a vision for the next two decades. Sustainability and environmental resilience are among the central pillars of this vision.

Since 2014, the ASEAN Intergovernmental Commission on Human Rights (AICHR) has been working to infuse a rights-based approach in environmental governance and protection. Much of the work involves dialogues, workshops and programmes that have culminated in recommendations.

It was only in 2022 that the AICHR decided to move forward with drafting an environmental human rights framework for ASEAN. The initiative was proposed and led by the then AICHR Thai representative Prof Dr Amara Pongsapich, with support from Indonesia, the Philippines and Malaysia. A working group was then formed to negotiate the text.

This year, Malaysia led the AICHR negotiations to finalise the ASEAN declaration on the Right to a Safe, Clean, Healthy and Sustainable Environment. The declaration represents a significant regional commitment to universally recognised environmental rights while advancing a forward-looking ASEAN interpretation of Article 28(f) of the ASEAN Human Rights Declaration (AHRD).

It provides an opportunity for ASEAN to move beyond symbolism and shape our environmental rights agenda and discourse in Southeast Asia meaningfully. However, its effectiveness will depend significantly on the strength, energy and political will of member states to implement it.

This article examines the AICHR’s evolving role in promoting and protecting environmental human rights in the Global South, amid ongoing global debates on environmental justice.

Climate change, conflict and the Global South

"Climate change", "authoritarianism" and "impunity" were identified as the top three threats to peace in Southeast Asia by participants in the "Building Peace – From Conflict Prevention to Sustainable Peace" programme on 2 July 2025.

The programme was part of a series of six workshops on the intersection between conflict and human rights convened by the AICHR and led by Malaysia, with support from Indonesia and Thailand. These were not merely hypothetical concerns but reflective of the lived assessments of diplomats, senior government officials and civil society actors working on the ground in ASEAN.

While the causal connection between climate change and conflicts in ASEAN remains understudied, the 20-year Darfur conflict in Sudan serves as an example of climate-exacerbated violence linked to pressures on and competition over usable, life-sustaining land.

Experts may disagree on the definition of "conflict", but this situation illustrates how the combination of governance failures, environmental scarcity and social cleavages can fuel instability. Regardless of the view on causality, the security and non-security consequences of a warming world are becoming increasingly difficult to ignore.

Unfortunately, the discourse on climate change and environmental degradation continues to be shaped and dominated by actors in the Global North, sidelining the lived realities and voices of the Global South. In contrast, states in the Global South, including ASEAN member states, endure disproportionate negative impacts from rising sea levels, extractive activities, biodiversity destruction and pollution.

Our region also faces severe environmental threats from extreme heat, transboundary smoke, intensifying storms, coastal erosion and ecosystem decline despite contributing far less to cumulative greenhouse-gas emissions. Some of these challenges are magnified by the limited institutional capacities and fiscal resources available to meet the needs of our people, compared with wealthier nations.

Centuries of colonial resource extraction and consumption, exploitative trade regimes and ongoing waste exportation have deepened structural inequalities between the North and South. Climate change has emerged as a significant issue, particularly as its effects have become more evident in the North.

The visible negative impacts of climate change spurred action, leading to the rapid adoption of new standards and implementation of adaptation strategies that often lack the involvement of and support from Southern nations. Meanwhile, many governments in the Global South struggle with competing priorities, such as poverty reduction, energy access and infrastructure development, which often collide with environmental imperatives.

Widespread scepticism towards the Global North persists among states in the Global South. This perspective is deeply rooted in the enduring legacy of colonial exploitation and the perception that environmental governance standards in the North often overlook or fail to account for Southern realities and conditions.

By extension, a more holistic lens will pay attention to the following:

- Weighing in on the need for development priorities that include poverty reduction, energy access and infrastructure development. How these priorities interact and are to be balanced – while ensuring environmental sustainability for the needs of both present and future generations – remains a debated topic. This is evident from the language of Articles 35 and 36 of the AHRD.
- Emphasising the importance of traditional, ecological and Indigenous knowledge together with communal land tenure and grassroots development initiatives that focus on local groups and communities.
- Overcoming legal, institutional and

structural barriers to access remedies and justice as environmental accountability measures for rights violations. Often, countries in the South have weaker protection systems and limited participatory governance on environmental matters. Political repression targeting frontline environmental defenders, victims and survivors has also been reported.

- Focusing on people and groups in vulnerable and marginalised situations as rightsholders and not beneficiaries of charity. They are most impacted by environmental harm yet bear the least responsibility for its occurrence. As rightsholders, their relationship with the state is special. Specific forms of protection need to be embedded, such as the right to redress and right to be informed and heard on matters affecting them.

Adopting this perspective allows us to address the entrenched structural inequalities that persist in global environmental politics, with justice and equity as central objectives. If the North continues to dominate decision-making, these disparities will persist, and ecological costs will fall disproportionately onto others.

Recognising the complexity of these issues – rarely black and white – we can begin to redress the imbalances through a rights-based approach underpinned by enforceable safeguards that redistribute power, resources and accountability. The language of rights can help steer us in the right direction but only if it is truly protective in practice.

From global norms to regional commitments

Despite grey areas surrounding the right to a clean, healthy and sustainable environment, which leave state obligations and their justiciability uncertain, the international community has made significant normative strides in recent years.

On 28 July 2022, the United Nations General Assembly (UNGA) adopted Resolution 76/300, recognising the right to a clean, healthy and sustainable environment – 161 countries voted in favour and no votes against.

Of the 10 member states, only Cambodia abstained, with no publicly available record of its reasons, while the others voted in favour. The resolution also affirmed that the promotion of the right required the full implementation of multilateral environmental agreements in accordance with the principles of international environmental law.

The UNGA resolution is significant because three years later, on 23 July 2025, the International Court of Justice (ICJ) issued an advisory opinion affirming that both customary international law and climate treaties, such as the United Nations Framework Convention on Climate Change (UNFCCC) and Paris Agreement, impose binding state obligations to take adaptation measures.

Moreover, developed countries have the additional responsibility of helping developing countries meet the costs of adaptation. Failure to take adequate preventive and precautionary measures to avoid climate harm may give rise to legal responsibility. States must also regulate private actors as part of their due diligence obligations.

This ICJ landmark opinion solidifies the connection between the environment and human rights, rendering it impossible to argue that the former belongs solely to environmentalists and the latter to human rights advocates. The two fields cannot and must not operate in silos. Climate change agreements are not separate from human rights obligations.

For ASEAN, these developments are profound. Both the UNGA resolution and ICJ ruling make it clear that environmental protection

is not discretionary but mandatory. The challenge, however, lies in the translation. Can the AICHR vernacularise these global commitments into regional norms and practices?

In ASEAN, the ASEAN Senior Officials on Environment (ASOEN) manages environmental matters, while the AICHR handles human rights issues. Led by the ASOEN and in consultation with other ASEAN organs and bodies including the AICHR, ASEAN regularly issues joint statements on climate change to the Conference of the Parties to the UNFCCC.

To enhance ASEAN's common position on environmental rights issues, the AICHR's overarching role provided it an entry point to cross the sectors and "marry" both mandates – environmental governance and environmental human rights.

In 2022, led by Thailand, the AICHR set out to draft a regional framework on environmental rights. ASEAN has a history of using soft law instruments, which, although not legally binding, shape norms and discourse and influence domestic legislation. The ASEAN Declaration on the Right to a Safe, Clean, Healthy and Sustainable Environment aligns with this trajectory. By interpreting Article 28(f) of the AHRD, the declaration will establish a foundation for environmental rights in regional jurisprudence.

The path to the declaration has been a gradual one. Since its inauguration in 2009, the AICHR has been criticised for its mandates, which were heavily skewed towards promotion rather than protection.

Yet, within this limited scope, we have gradually carved out space for environmental rights discourse to take place since 2014, organising programmes on human rights, climate change, environmental impact assessments and, more recently, in 2024, on Indigenous knowledge.

Throughout 2023 and 2024, the AICHR working group drafting the environmental rights framework met in Bangkok, Manila, Jakarta and Kuala Lumpur. These meetings involved the active participation of civil society and environmental experts.

The draft declaration was presented to the AICHR in mid-2024 for further deliberation. Under Malaysia's in 2025, the AICHR consulted with the ASOEN in April, completed negotiations and submitted the final text to the ASEAN Foreign Ministers Meeting in May.

Building on nearly a decade of the AICHR's environmental human rights work, ASEAN observers, government officials and civil society are looking forward to the adoption of the Declaration at the 47th ASEAN Summit in October 2025. The adoption would mark an ASEAN milestone as it is only the second human rights instrument since the AHRD's adoption some 13 years ago.

Interestingly, even before the UNGA resolution, Article 28(f) of the AHRD had already recognised the right to a safe, clean and sustainable environment as part of a basket of "adequate living standard" rights.

Although the upcoming declaration will not be legally binding, it commits ASEAN governments to integrate environmental protection with human rights and harmonise core principles across the region. It will offer an ASEAN-led and ASEAN-owned response to environmental challenges. The risk, however, is that it remains symbolic, being empty statements used to legitimise weak standards.

Core elements of environmental rights

The key to environmental rights recognition is the protection of substantive and procedural rights. The former relates to clean air and water, healthy ecosystems and biodiversity, non-toxic environments, safe climate and healthy and sustainably produced food.
The latter includes access to information,

public participation and access to remedies. At the same time, there needs to be a provision and sustainment of civic space and an enabling environment for the exercise of those rights. In this regard, environmental human rights defenders and groups in vulnerable and marginalised situations, and the right to freedom of opinion, expression and association, should be protected.

Further, states as duty-bearers have obligations to respect, protect and fulfil the rights of the people and communities, particularly the historically vulnerable and marginalised. A framework providing for participation, transparency, accountability and remedy is necessary. It should also incorporate customary and Indigenous knowledge in stewardship, while establishing gender-responsive and intergenerational justice principles.

These concepts remain heavily contested around the world and this is no different in ASEAN. In varying forms and degrees, the declaration references these matters.

ASEAN-led and ASEAN-owned approach

Rather than parroting a worldview dominated by wealthier, industrialised nations, the AICHR has taken the lead in articulating an ASEAN-led and ASEAN-owned approach to environmental rights and justice.

For far too long, the commission has been criticised for inadequately articulating a common ASEAN position on human rights issues.

This has been largely due to several reasons, not least the inability of ASEAN governments to unite on human rights, political sensitivities, fear of entrenching normative standards in the region, the lack of strong regional political will, and differing domestic legal and institutional standards and frameworks. The upcoming declaration changes this, showing that ASEAN can achieve agreement that is acceptable to all its member governments, even on complex and sensitive human rights matters.

As a soft law instrument, the declaration can function to drive national laws and reforms towards the progressive adoption of global good practice standards (such as supply chain transparency, disclosure requirements and due diligence); build the capacity of regulators, courts, businesses, civil society and stakeholders; enable more meaningful civic participation and promote policy coherence across climate, health, food security, disaster risk reduction and other interconnected priorities.

Importantly, the declaration will provide multiple entry points for improved coordination between ASEAN bodies to enhance the implementation of environmental rights in the region. Environmental harms span various sectors, including health, agriculture, food security, energy, economy, disaster management, oceans and fisheries, and human rights.

ASEAN 2045: Our Shared Future calls for institutions to be more resilient, innovative, agile, adaptive, responsive and decisive. For this call to be met, the AICHR must lead the way in embedding environmental rights, cutting across the political-security, economic and socio-cultural pillars.

As cross-sectoral coordination is emphasised in the vision, fragmentation across ASEAN organs and bodies cannot continue to remain an obstacle. The declaration bridges the gap between human rights and environmental protection, thereby unifying environmental rights across all pillars of the ASEAN Community.

The AICHR has its limitations, however, and they mirror those of ASEAN.

First, ASEAN's consensus-driven approach to diplomacy, known as the "ASEAN Way", can sometimes be associated with slow decision-making processes, which in

turn present challenges to the AICHR in advancing robust regional human rights standards. When member states are cautious about acknowledging environmental human rights issues, progress may be frustratingly incremental.

In the context of the declaration, there is a risk that the instrument would be perceived more as a guiding principle than a transformative tool. However, as evident during Malaysia's leadership of ASEAN this year as its chair, the ASEAN Way in diplomatic practice does not obstruct progressive human rights developments. With a genuine commitment from AICHR representatives, there is ample opportunity to foster meaningful advancement on human rights in the coming years.

Second, the AICHR commonly prefers to foster dialogue and develop strategies in its work. To fulfil the declaration's ambitions, the AICHR must work harder to harness its convening role, bringing together bodies, entities and stakeholders for more robust and frank conversations on monitoring and evaluation aspects, even as domestic implementation of the Declaration will present ongoing challenges.

This requires a great deal of attention. Given the short time frame of the AICHR chair, successive leaders must dedicate greater time and resources to maximise every available opportunity to platform and deliberate on human rights concerns, as demonstrated throughout this year.

A principle that has consistently guided ASEAN is ASEAN Centrality and the AICHR as a key organ of the ASEAN Charter is expected to lead in shaping collective regional and global responses. In this context, ASEAN centrality should extend beyond maintaining ASEAN's geopolitical relevance and encompass normative leadership in addressing shared challenges. AICHR-led initiatives on environmental rights can serve as a platform for ASEAN to articulate region-specific priorities and counter exclusionary narratives from the Global North.

As cross-sectoral coordination is emphasised in the vision, fragmentation across ASEAN organs and bodies cannot continue to remain an obstacle. The declaration bridges the gap between human rights and environmental protection, thereby unifying environmental rights across all pillars of the ASEAN Community.

Looking ahead

ASEAN 2045: Our Shared Future is emphatic on what ASEAN needs to do in the coming years:

- Strengthen institutions and refresh processes to enhance resilience, innovation, agility, adaptability, responsiveness and decisiveness in addressing increasingly complex cross-cutting issues.
- Strengthen institutional capacity and effectiveness, which includes, but is not limited to, arriving at decisions on urgent and specific situations in a timely manner and promoting greater synergy and coordination in cross-

pillar and cross-sectoral issues.

- Anchor the ASEAN Community on ASEAN Centrality with enhanced institutional capacity and effectiveness, with organs, bodies and mechanisms that are more decisive, responsive and timely, as well as future-ready in addressing global and regional challenges.

The Malaysian 2025 ASEAN theme of inclusivity and sustainability has given the AICHR the push to progress both the substantive (rights-based environmentalism) and the institutional (enhancing ASEAN capacity and cross-sector capture), grounded on the new 2045 vision.

Following the AHRD, the much-anticipated declaration represents a significant second step in developing ASEAN-specific environmental rights jurisprudence and practices that can match initiatives in other regions of the Global South, addressing climate and human rights issues while challenging Northern exclusionary narratives.

A caution, however: the declaration must not become an empty statement on paper or worse, be instrumentalised to offer cover and justify poor standards and discriminatory policies in ASEAN. At the same time, it is important to recognise the AICHR's institutional constraints. With no explicit protection mandate, representatives of the commission have been creative to leverage on the AICHR's existing powers.

This declaration reflects what communities across ASEAN have been calling for. As they face real-world concerns gravely impacting on their daily lives and livelihoods, the right to a safe, clean, healthy and sustainable environment is not a luxury but a necessity.

Despite existing power imbalances in international politics, Global South nations resist adopting a victim mentality. Instead, they are actively shaping and reshaping the landscape. The declaration is one of the building blocks to transform ASEAN's approach to environmental rights.

Following the Declaration, ASEAN must still take coherent, rights-based and regionally grounded actions that are owned by the body and responsive to the needs of its people. Only then will the Declaration contribute to the actual and meaningful protection of victims and survivors.

No one should pretend that climate change initiatives and human rights are separate domains. In ASEAN, they must be seen as one unified struggle under a single front, beginning from the time we move ahead with the adoption of the declaration.

Edmund Bon Tai Soon
Chair (2025) and Representative of Malaysia
AICHR

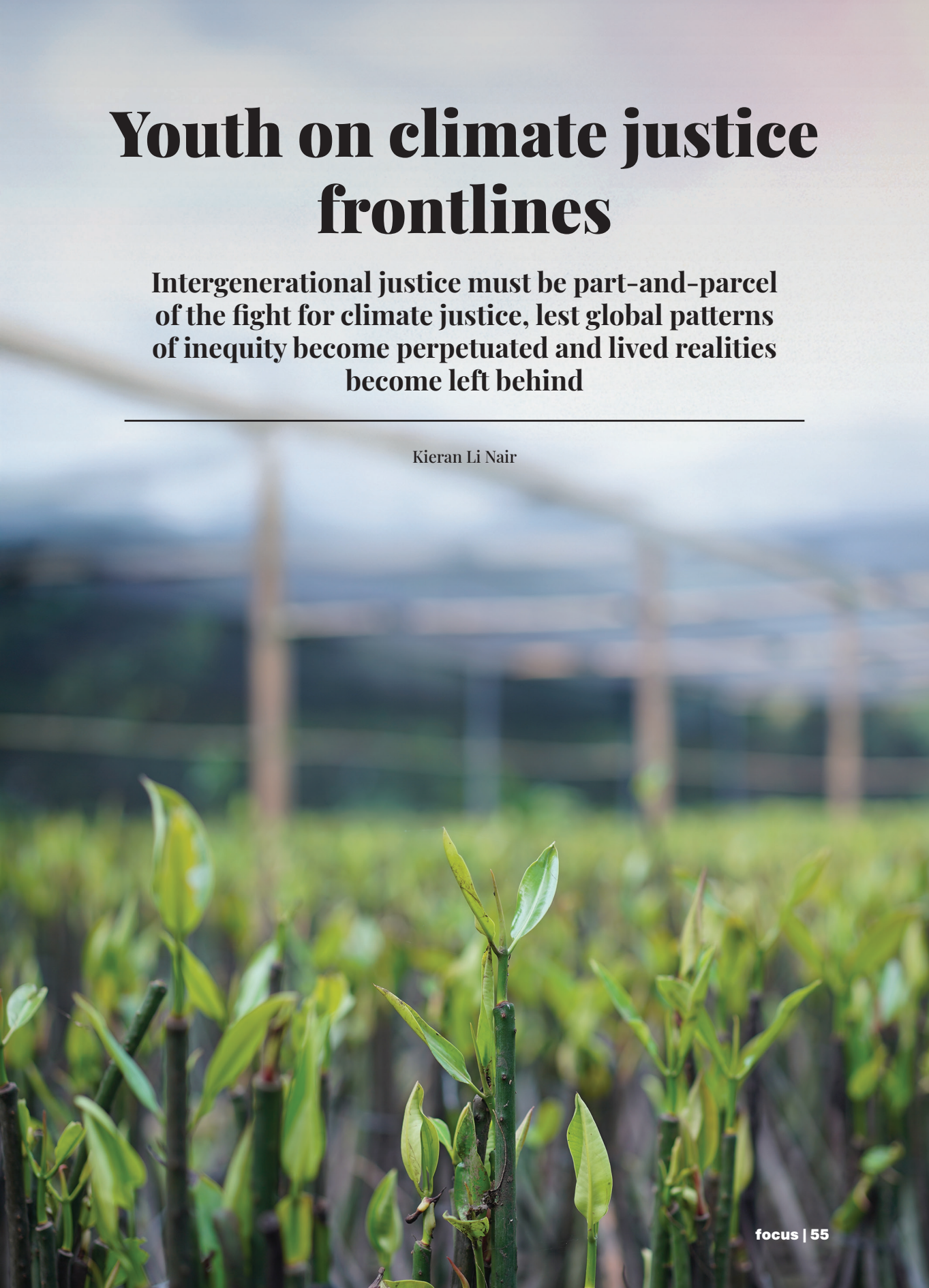
Toh Nyon Nyin
Environmental Rights Focal Point for AICHR
Representative of Malaysia

Umavathni Vathanaganthan
Assistant to AICHR Representative of Malaysia

Youth on climate justice frontlines

Intergenerational justice must be part-and-parcel of the fight for climate justice, lest global patterns of inequity become perpetuated and lived realities become left behind

Kieran Li Nair



The urgency of the climate crisis is undeniable, as the fact is that youth and children are disproportionately affected by the injustices left behind by the generation before them. The nature of climate action calls for the imperative that current actions (leading to future decisions) do not compromise the rights and wellbeing of not only the current generation of youth and children as rights-holders, but also future generations to come, for those who have yet to gain a voice. It should also ensure all that has been fought for – generational struggles for human rights and against injustices, such as colonialism and exploitation – are upheld. That is the core concept and function of intergenerational justice.

There is no better demographic of people embodying these values to look towards than the younger generation of today. After all, the youth have been galvanised by the injustices in the world today. With six out of nine planetary boundaries crossed and every subsequent year's temperature being the highest record of the decade, climate change's role as a threat multiplier continue to deepen the gaps of losses and damage and intensify global inequality, resource insecurity, poverty, economic instability and geopolitical conflict all around the world.

Not only that of climate action, for this context, but also the understanding that climate justice cannot be separated from social justice, peace and liberation of all oppressed people – that the fight for climate justice is inherently a fight for human rights, and in the words of Dr Maya Angelou reflecting on Martin Luther King Jr's legacy, "no one of us can be free until everybody is free".

Barriers towards equity

But things are never so straightforward. It is so often that these youth, especially those of the Global South – who are most subjected to and subjugated by injustices worldwide – are cast aside by the processes meant to protect them.

“

The nature of climate action calls for the imperative that current actions (leading to future decisions) do not compromise the rights and wellbeing of not only the current generation of youth and children as rights-holders, but also future generations to come, for those who have yet to gain a voice.

For one, international climate governance processes, such as the Conference of the Parties, are becoming increasingly inaccessible to Global South activists. Where their presence is most needed, and at platforms where their voices often represent the whole of their communities, seemingly simplistic barriers, such as costs and logistics, hinder their voices from being heard and amplified. This having yet to account for the increased censorship of certain movements and voices, such as those against the war in Gaza, in negotiation halls due to political boundaries. In recent years, for instance, the movement against visa injustice has grown, in particular in addressing the Bonn Climate Change Conference, where the location of one's birth unfairly determines their access to countries that have often historically been oppressive powers against low- and middle-income countries.

Scales have also increasingly tipped towards the Global North countries, which have doubled down on the uneven power

dynamics perpetuating geopolitics since their colonial eras. There is no clearer instance of this than the outcome of the new collective quantified goal on climate finance, which was hardly a reflection of what the Global South needs to deal with the loss and damage it faces at this very moment; the impacts of which the youth and children will face the brunt of. When islands are sinking and storms are destroying homes, it is no longer simply a matter of debate but the survival for all, which developed nations are catching up with far too slowly and at the expense of the lives of both the young and old in the developing world. Through divide-and-conquer tactics and unilateral impositions, the Global North has broken down crucial solidarities that would have allowed the Global South countries to stand their ground.

What is more, youth are increasingly grappling with eco-anxiety, which is the existential dread of climate change and the perceived inability to change the circumstances befalling them. The youth who work both inside and outside of social movements report feeling anxiety and even despair when taking in the current state of the world and considering their future prospects. When power is accumulated in the hands of a few, it is no wonder that those who perceive themselves victimised become too demotivated to act. In fact, resignation is what the powers that be demand from the people to ensure that the modern dynamics of inequities stay intact. In the face of such adversaries, it is all the more crucial to empower voices of the future in fighting for their rights and not let themselves be held down.

Get up, stand up for your rights

Young people have already proven themselves to be capable at making themselves heard. Many trace back the galvanisation of youth movements to important figures, such as Greta Thunberg and the Fridays for Future movement, but it must be said that the youth from the Global South have always been fighting for their livelihoods.

The development of the ASEAN Declaration on Environmental Rights to enshrine the United Nations General Assembly's right to a healthy environment, for instance, aims to set out protections for Indigenous Peoples and environmental defenders, who have for generations stood up against state-sanctioned oppression and for the rights to their homes. These are frontline communities most affected by environmental and climate impacts, and such legislation aims to not only provide legal protection mechanisms but also hold the people in power accountable for their actions.

Young people have also been influential in global climate discourse. The youth constituency of the United Nations Framework Convention on Climate Change, YOUNGO, has gained a seat at the negotiating table to make the youth's demands heard by all parties. Their capabilities have also been increasingly recognised by governing bodies, with various programmes, such as the Presidency Youth Climate Champion, the Youth Delegates Programme and the Youth Negotiators Academy, working together with national authorities to enshrine youth voices into global climate governance processes. There is increased recognition that activism from both within and outside of the system is crucial, and the youth have long drawn that bridge for each other, waiting for their seniors to follow suit.

There is much wisdom and resilience to be derived from the youth who chose to make themselves heard despite the dissent they receive in response, and whose unrewarded passion and resilience are seen as defiance despite the magnitude of their battles. More and more youth have shown themselves to be driven by a strong sense of justice and moral compass for the sake of a future that serves everyone. Yet, the youth cannot be expected to martyr themselves shouldering the burdens of perpetrators who are selfishly steadfast in leaving behind a broken world. Those in power have the responsibility and must find within themselves the vested

sensibilities to elevate the voices of the most vulnerable and ensure that the demands are not only met but these voices are allowed to be the changemakers of their own futures.

Envisioning a just world

It is clear, then, that a future-oriented justice is needed, informed by the historical contexts of inequity and the need for systemic transformations in international climate governance, especially for those in the Global South.

And what do these systemic transformations look like for intergenerational justice? For one, meaningful legislative participatory mechanisms must be enshrined at all levels. The youth, as rights-holders, must be acknowledged not just as consultants but as decision-makers in determining future actions and ambitions being taken for the planet. They must also be provided with access to the education and capacity building needed to make informed determinations.
Second, it must be acknowledged once again that the fight for climate justice is an intersectional fight, one that comes hand-in-hand with social justice, peace and liberation for all. The issue of climate change is inherently linked with other socioeconomic issues that the most vulnerable among us are burdened with – women and children, low-income communities, people with disabilities and so on. After all, the concept of a "just transition" demands that these linkages be identified and adequately addressed in charting the path to a 1.5°C future.

Finally, no change can come without solidarity. Actors in the Global North must acknowledge that the circumstances they were born into have given them an advantage in their cause. They must use this privilege for good to elevate the voices of those who are most left behind and to fight for those who may never receive a seat at the table. And they must be open to understanding their role in the current world order, and the tools the Global North has in its disposal to break the order down, hand-in-hand with the Global South, for facilitating the future that is needed.

Systemic changes require not only forward-looking solutions but also the capacity to envision a better future, and that is the biggest strength of the youth. What one might perceive as inexperience and naivety is another's beacon of hope in moving towards a just, fair and equitable future that serves all.

Those in power have the responsibility and must find within themselves the vested sensibilities to elevate the voices of the most vulnerable and ensure that the demands are not only met but these voices are allowed to be the changemakers of their own futures.

Kieran Li Nair
Senior Researcher
Institute of Strategic & International Studies Malaysia

Technology transfer to support developing nations' just transitions

Under the multilateral climate change regime, technology transfers remain critical as an enabler for climate action and sustainable development

Vicente Paolo Yu

The global achievement of sustainable development is increasingly threatened by complex interlinked crises – economic stagnation, environmental degradation, technological inequality, demographic shifts and climate change. Developing countries face the compounded burden of pursuing economic development, while coping with the adverse effects of climate change and a volatile external geopolitical and geo-economic environment. Many are constrained by structural weaknesses, limited domestic capacities and reduced policy space due to external trade and investment rules.

In this context, access to climate-relevant technologies is vital. Past development patterns have been fossil-fuel intensive, especially in the developed world, which is responsible for approximately 70% of historical greenhouse gas emissions. Yet, most future emissions are expected to come from developing countries, albeit at lower per capita rates. A just transition necessitates that these countries bypass traditional fossil-fuel pathways and leapfrog towards low-carbon, climate-resilient development with appropriate technological and financial support under the United Nations Framework Convention on Climate Change (UNFCCC).

Enablers and challenges in technology transfer

Despite long-standing international commitments on technology transfer from developed to developing countries under the UNFCCC, actual technology transfer remains limited due to systemic challenges. Developing countries' Technology Needs Assessments (TNAs) and Nationally Determined Contributions under the UNFCCC identify the following key barriers:

- Economic and financial obstacles: lack of funding, high upfront costs and limited access to affordable finance.
- Policy, legal and regulatory gaps: weak or absent enabling frameworks for technology development and deployment.
- Technical and institutional capacity constraints: limited human capital, insufficient expertise and poor infrastructure.

These challenges are pervasive across all regions and developing country groups, including least developed countries (LDCs), Small Island Developing States (SIDs) and others. Addressing financial barriers alone is insufficient. A successful strategy requires holistic efforts targeting institutional development, policy coherence, technical education and market stimulation.

Importantly, different regions report varying priorities and constraints. For example, African and Asia-Pacific countries focus heavily on agriculture and energy sectors, while Latin American countries prioritise energy efficiency and transport technologies. All regions, however, report economic and financial issues as the dominant barrier.

“

Effective technology transfer is not just about hardware – it also includes transferring know-how, human skills, operational expertise and institutional systems. It should empower developing countries to innovate, adapt and develop their own endogenous technologies suited to local conditions.

Technology transfer commitments and mechanisms

International law and policy frameworks recognise the responsibility of developed countries to support developing countries through technology transfer. This principle is embedded in Agenda 21, Sustainable Development Goals, and the UNFCCC (Articles 4.1(c), 4.3, 4.5 and 4.7) and reaffirmed in the Paris Agreement (Article 10).

The UNFCCC has institutionalised and sought to operationalise technology transfer through the technology mechanism, comprising the Technology Executive Committee and the Climate Technology Centre and Network; through the technology framework under the Paris Agreement, which guides enhanced action on technology transfer; as well as through various processes, such as TNAs and Technology Action Plans.

However, multiple assessments have shown that the implementation of these technology transfer commitments of developed countries under the UNFCCC and its Paris Agreement have been inadequate. While other international institutions, such as the World Trade Organisation (WTO), the World Intellectual Property Organisation, the United Nations Trade and Development, the United Nations Industrial Development Organisation and the United Nations Environment Programme, also play a role in facilitating knowledge transfer and access to technologies, they cannot fill the gap.

Prioritising appropriate technology

However, effective technology transfer is not just about hardware – it also includes transferring know-how, human skills, operational expertise and institutional systems. It should empower developing countries to innovate, adapt and develop their own endogenous technologies suited to local conditions.

Developing countries have long prioritised obtaining access to mature and proven technologies that are easier to adopt and scale up. These include mitigation technologies, such as solar photovoltaics, wind, hydro, mass transit, energy efficiency and sustainable agriculture, as well as adaptation technologies, such as drought-resistant crops, irrigation systems, early warning systems, coastal protection and water storage.

The choice of technology should reflect national circumstances, such as energy dependence, economic structure or vulnerability to climate change. For instance, fossil-fuel-importing countries might focus on renewable energy technologies, while fossil-fuel-exporting countries could focus on technologies that support economic diversification. On the other hand, SIDS and LDCs may prioritise adaptation, food and water security through agricultural technologies and other adaptation technologies.

South-South and triangular cooperation could be promising, but remain underutilised, avenues for technology sharing among developing countries, given that there may be greater scope for the sharing of technologies due to having similar geophysical and climate contexts.

Trade, intellectual property and technology transfer

Trade is a key vector for the global diffusion of climate-relevant technologies. But international trade rules could restrict rather than facilitate technology access for developing countries. Key challenges include unilateral barriers on technology exports to developing countries, discriminatory standards or labelling requirements that marginalise exporters from the Global South, and intellectual property rights (IPR) barriers, where strict patent protections – especially those exceeding WTO Trade-Related Aspects of Intellectual Property Rights (TRIPS) standards – limit access and affordability.

The concentration of climate-relevant technological production in developed countries exacerbates North-South imbalances. As of 2016, 73% of climate technology exports came from developed countries. Most innovation and trade in advanced technologies are led by a handful of developed countries, including Japan, the US and Germany. Among developing countries, primarily China, and to a much lesser extent India and some Southeast Asian countries, have been gaining market share in such technologies.

To mitigate these imbalances, the following actions should be explored by developing countries:

- Establishing voluntary patent pools and technology banks to provide access to patented climate-relevant technologies for developing countries.
- Creating a new multilateral fund to support climate-relevant technology transfer.
- Enhancing IPR flexibilities and avoiding intellectual property protection commitments in trade agreements that are stricter than those in the TRIPS Agreement.
- Regional cooperation and resource pooling among developing countries to build technical and financial capacities for technology transfer.

Finance-technology nexus

Finance is a key enabler for technology deployment. However, developing countries often face prohibitively high financing costs for technology adoption. For example, renewable energy projects in the Global South suffer from higher capital costs compared with those of the Global North, despite having similar technology needs.

This underlines the importance of integrating climate finance and technology support, including grants and concessional loans for early-stage deployment, dedicated multilateral funds for technology transfer, national budget allocations for climate technologies, as well as capacity building for technology financing and investment planning.

> **“A just transition for developing countries hinges not only on financial support but on ensuring timely, affordable and appropriate access to climate-relevant technologies – backed by institutional, human and policy capacity to absorb and adapt them effectively.**

Strategic recommendations and entry points

Coordinated national and international strategies to overcome systemic barriers to technology access are hence needed.

Key national actions include creating enabling policy and regulatory frameworks; investing in education, research and development and infrastructure; as well as aligning technology strategies with national development and climate goals.

In addition, international cooperation should be facilitated via scaling up support through the UNFCCC, including climate finance and technology transfer commitments, as well as via strengthening South-South and regional collaboration and resisting restrictive trade and IPR measures.

Technology transfer, if done right, can empower developing countries to pursue climate-resilient development, while asserting technological sovereignty. It must be tailored to national contexts, support innovation and address structural inequalities embedded in global systems of trade, finance and intellectual property.

Bridging the climate-technology gap

The technology divide remains a major obstacle to climate justice and sustainable development. Bridging this divide requires a rethinking of how technology is developed, shared and governed globally.

A just transition for developing countries hinges not only on financial support but on ensuring timely, affordable and appropriate access to climate-relevant technologies – backed by institutional, human and policy capacity to absorb and adapt them effectively.

It is important to adopt a comprehensive approach involving both national action and international cooperation to address the technology gap between developed and developing countries. The diversity of national circumstances among developing countries in terms of their development priorities, capabilities and constraints would dictate against a one-size-fits-all approach and prioritise the importance of national approaches that allow the countries to tailor solutions to their specific needs and conditions.

Furthermore, the technology gap is a global challenge that requires a coordinated international response. International cooperation is essential to facilitate access to technologies, financing and capacity building.

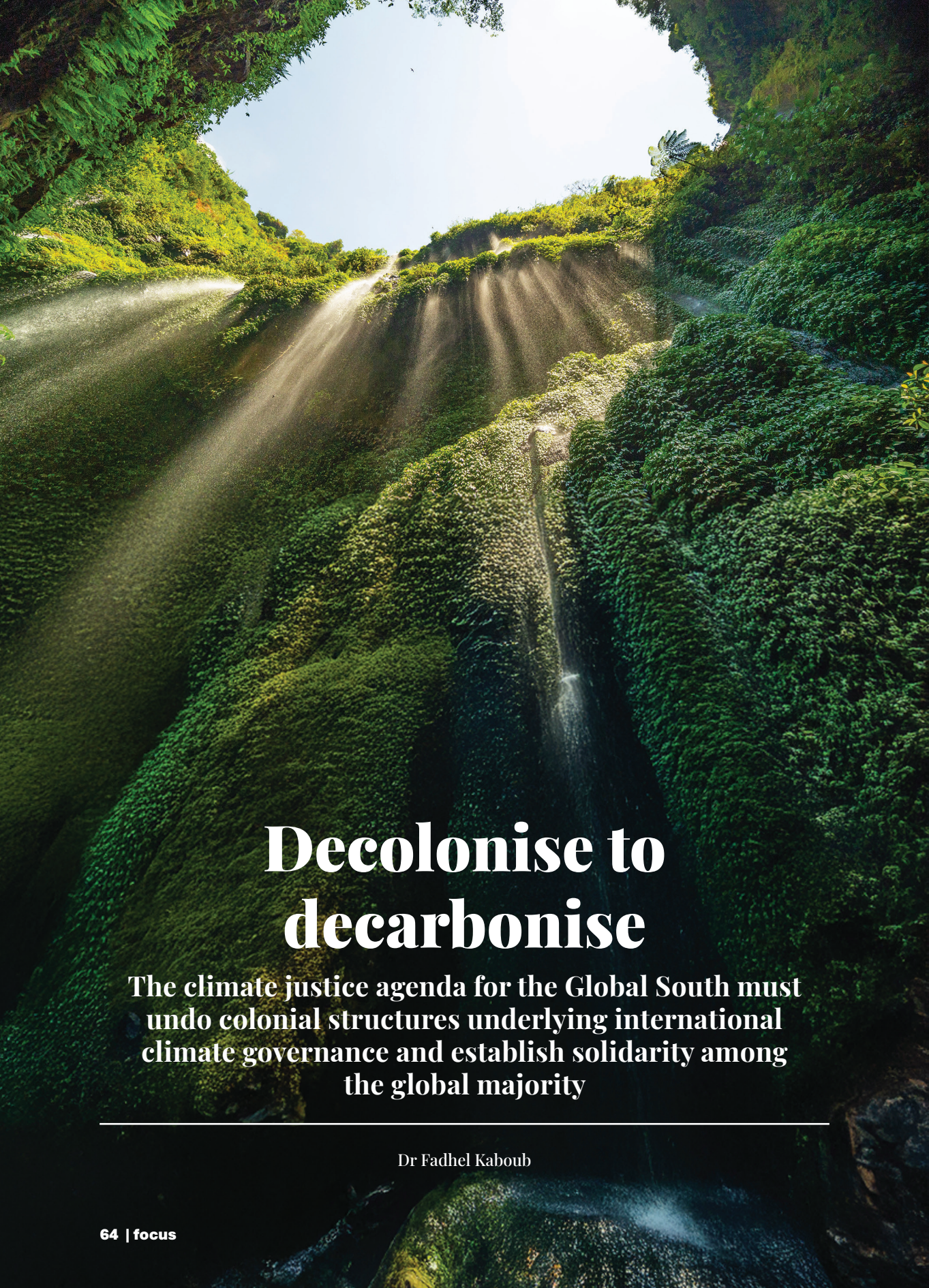
Endogenous technology development in developing countries is essential as well; while technology transfer from developed to developing countries is crucial, it is also important to promote the development of domestic technologies in developing countries. This gives them greater autonomy and adaptability.

An integrated and coherent policy approach combining national action and international cooperation allows aligning technology development policies with countries' climate and sustainable development commitments. International cooperation is key to mobilising the financial and technical resources needed to bridge the technology gap, which is difficult to achieve through national efforts alone.

Addressing the technology gap comprehensively, through both national action and international cooperation, is fundamental to achieving sustainable and inclusive development in developing countries. Such a multi-pronged approach is needed to effectively bridge the technology divide.

This article is a summary of a book entitled "Technology Transfer to Support Just Transitions Towards Sustainable Development in Developing Countries" by the writer and published by the Third World Network, which can be downloaded at https://twn.my/title/climate/climate08.htm.

Vicente Paolo Yu
Senior Legal Adviser
Third World Network



Decolonise to decarbonise

The climate justice agenda for the Global South must undo colonial structures underlying international climate governance and establish solidarity among the global majority

Dr Fadhel Kaboub

As the Global South prepares to take centre stage at the 30th Conference of the Parties (COP30) in Belém, Brazil, and under Malaysia's leadership of ASEAN in 2025, the time is ripe to reflect on the structural barriers that continue to undermine climate ambition and justice. Climate change is not merely a scientific or technical problem to be solved with market fixes or green technologies. It is the result of centuries of plunder, unequal exchange and externally imposed development paths that have left the Global South both heavily exposed to climate risks and constrained in its capacity to respond. Decolonising climate governance, finance and economic structures must therefore become the foundation of any credible decarbonisation agenda.

Colonial roots of climate crisis

The climate crisis is deeply rooted in colonial patterns of extraction, dispossession and enclosure. From the forced displacement of Indigenous communities to make way for plantations and mines, to the commodification of nature and labour for imperial profits, the atmospheric crisis we now face is the ecological fallout of colonial capitalism. The Industrial Revolution was fuelled by the wealth extracted from the colonies – through slavery, resource grabs and unequal trade – and yet it is the Global South that now bears the brunt of climate disasters.

This legacy is not a matter of history alone. The economic structures imposed during colonisation continue to define the peripheral position of the Global South in global value chains. Most Global South economies remain locked into exporting raw materials and importing expensive finished goods – an arrangement that fuels ecological harm at both ends. This dependency also translates into constrained fiscal space, volatile exchange rates and mounting external debt burdens, all of which limit the capacity of Global South states to invest in adaptation, energy transitions or food sovereignty.

Global climate governance: still a colonial project?

Global climate governance today continues to reproduce the very inequalities it claims to address. The United Nations climate negotiations, structured around voluntary pledges and consensus decision-making, allow wealthy countries (i.e., historic polluters) to delay meaningful action, while imposing burdensome conditions on poorer ones. The much-touted US$100 billion (RM422 billion) climate finance goal has never been met – and even when funds are disbursed, they often come in the form of loans rather than grants, further indebting vulnerable nations.

“

Climate change is the result of centuries of plunder, unequal exchange and externally imposed development paths that have left the Global South both heavily exposed to climate risks and constrained in its capacity to respond. Decolonising climate governance, finance and economic structures must therefore become the foundation of any credible decarbonisation agenda.

Moreover, the Global North continues to monopolise climate narratives and technologies. Green transitions in the Global North are increasingly premised on critical mineral extraction from the Global South, green export platforms (e.g., green hydrogen), and carbon border adjustments that shift the costs of decarbonisation to countries that have barely contributed to the crisis. This is not climate justice; it is climate colonialism in green disguise.

The governance architecture – dominated by various institutions, such as the International Monetary Fund (IMF), the World Bank and the World Trade Organisation (WTO) – reinforces this injustice. Structural adjustment programs, austerity conditionalities and intellectual property regimes constrain the policy space needed for the Global South to build domestic green industries or deploy public investment at scale. As a result, climate ambition in the Global South is systematically undermined not by lack of will but by lack of systemic sovereignty.

Decolonise to decarbonise: a transformative agenda

To decarbonise at the necessary pace and scale, we must decolonise the economic structures that created and now perpetuate the crisis. This means rejecting the false dichotomy between development and climate action and asserting the right of all peoples to live dignified lives within planetary boundaries.

"Decolonise to decarbonise" is not a slogan. It is a call for structural transformation across at least four key domains:

1. **Climate finance must be reparative, not extractive**

Climate finance should be guided by principles of ecological debt and historical responsibility. This means large-scale, grant-based public funding – not loans – for adaptation, loss and damage, and regional South-South green joint industrial policies. Mechanisms, such as the Fund for Responding to Loss and Damage, must be financed with no conditionalities and governed by the Global South for the Global South. We must move from charity to justice, from aid and redistribution to economic transformation and predistribution.

2. **Trade and investment rules must empower, not constrain**

Decolonisation requires rethinking the global trade and investment architecture. Current rules under the WTO and bilateral investment treaties make it nearly impossible for the Global South to leapfrog industrial development via the transfer of life-saving technologies, protect infant green industries, use public procurement for development, or require local content in clean energy projects. We need a new trade regime that enables green industrialisation, facilitates

> **"The world will be watching the Amazon, not just as a carbon sink but as a symbol of planetary interdependence. Will the Global South continue to be treated as a carbon offset zone for Northern consumption, or will it finally speak in a unified voice for a new international economic and ecological order?**

technology transfer and ensures policy space for climate-resilient development.

3. Sovereign development pathways, not export-led traps

Climate action must be rooted in food, energy and industrial sovereignty. The Global South cannot afford to decarbonise by importing solar panels, wind turbines and electric vehicles while exporting raw minerals and agricultural goods. We need regional industrial ecosystems that allow countries to build domestic capacity in renewables, storage and value-added manufacturing. Regional South-South industrial cooperation can leverage the complementarity of resources and capabilities, the collective economies of scale for industrial development, and the readily available and trainable young labour force for the Global South. This is not only a climate imperative but an economic justice strategy.

4. Democratise global governance or build alternatives

Some institutions, such as the IMF and the World Bank, continue to act as gatekeepers of climate finance and macroeconomic policy. Their influence must be challenged. The Global South should use various platforms, such as the New Development Bank, the African Union (especially when it is made financially independent) and ASEAN, to build parallel governance structures that prioritise just transitions, public investment and industrial development. South-South solidarity must be institutionalised through shared investment vehicles, climate research networks and bloc-level bargaining power not only at the COP but in every multilateral space.

Strategic power of Global South solidarity

What is needed now is not just resistance but realignment. If Global South countries formed a unified bloc – demanding a debt moratorium, reparative climate finance and equitable trade rules – they could shift the balance of power. The Global South represents the majority of humanity, the majority of biodiversity and, increasingly, the majority of global growth. This is a moment of strategic opportunity to leverage the collective economic and geopolitical weight of the Global South to create a new multipolar international economic order of peace, justice and sustainable prosperity for all.

COP30 in Brazil must be the launchpad for such a vision. The world will be watching the Amazon, not just as a carbon sink but as a symbol of planetary interdependence. Will the Global South continue to be treated as a carbon offset zone for Northern consumption, or will it finally speak in a unified voice for a new international economic and ecological order?

The answer depends not just on what we demand from the Global North – but on what we build together in the Global South. Climate justice begins with economic justice. And economic justice begins by ending colonial patterns of extraction and exclusion, once and for all.

Dr Fadhel Kaboub
Associate Professor of Economics
Denison University

Institute of Strategic & International Studies (ISIS) Malaysia

Address: 1, Persiaran Sultan Salahuddin,
50480 Kuala Lumpur, Malaysia
Phone: 603 2693 9366
Email: info@isis.org.my

www.isis.org.my | ISIS_MY | isis_malaysia

ISISMalaysia | isis-malaysia