



STRENGTHENING MALAYSIA'S LEGAL READINESS FOR CLIMATE MITIGATION AND ADAPTATION

POLICY BRIEF 3/2025

Center for Technology, Strategy & Sustainability (CTSS)

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ABOUT THE SERIES

This policy brief is a series of research documents summarizing the knowledge of area contextualized to Southeast Asia and Malaysia, in particular from ongoing research work by the Center for Technology, Strategy & Sustainability (CTSS) at the Asia School of Business. The author of this issue is **Karisma Jaykant, Independent Researcher**.

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Executive Summary

This policy brief examines the twin imperatives of mitigation and adaptation through the analytical lens of legislative frameworks in the United Kingdom, Finland, and India. Each jurisdiction demonstrates regulatory and institutional leadership in the transition toward net-zero emissions, offering valuable lessons for Malaysia in crafting its own integrated climate governance. A clear path emerges for Malaysia. First, constitutional recognition of environmental rights would establish ecological integrity as a foundational principle, and enacting a Climate Change Act would offer a comprehensive legislative framework necessary for implementing binding climate policies and actions aligned with national targets. Second, it is essential to embed legally binding emissions-reduction targets to demonstrate strong government commitment and intent. This would not only ensure policy continuity beyond electoral cycles but also signal a sustained commitment from current and future administrations. Third, strengthening judicial review as a tool in climate change mechanisms is crucial to ensure that ministerial decisions remain lawful, rational, and consistent with statutory objectives. Fourth, developing an independent oversight mechanism can enhance credibility, legitimacy, and accountability of decisions and processes in climate policymaking. Further, by incorporating adaptation measures in Malaysia, binding legal mandates, paired with strategic non-binding instruments, can define responsibilities, foster coordination across all levels of government, and clarify the roles of both public and private actors. In confronting the defining challenge of our century, the question is no longer whether we act to mitigate and adapt, but how decisively and how soon.

Introduction

Mitigation and adaptation are well-established concepts and necessary pillars within the evolving discourse of climate change. Mitigation focuses on reducing heat-trapping pollutants into the atmosphere, either by (a) minimising greenhouse gas emissions across key sectors, including transportation, agriculture, and industry, or (b) enhancing soil, land, and ocean "carbon sinks" that absorb and store these gases through physical and biological processes (Don et al., 2024). Adaptation is the process of adjusting individual and collective behaviours, methods, and norms to current and anticipated events of climate change and is not a task for one sector alone (Ray Biswas & Rahman, 2023). It requires comprehensive changes across multiple sectors, including urban planning, agriculture, infrastructure, and public health. Malaysia is facing intensifying and escalating climate threats, including heatwaves, sea-level rise, floods, and extreme rainfall (Ehsan et al., 2019). These threats are not distant possibilities, but immediate challenges that pose a direct threat to the very essence of living and being for both urban and rural communities. This is the gravity of the situation we face, and it demands a comprehensive response in the face of an uncertain and volatile climate future. From erecting barriers against encroaching tides and floodwaters to reimagining urban spaces to withstand heat, local governments in Malaysia are at the forefront of responding to climate change in tangible ways.

Their proactive measures are a source of reassurance, demonstrating that although climate change is often portrayed in global terms, its immediate effects and consequences are being addressed within local geographies, along coastlines and in overheated cities. The urgency of Malaysia's climate crisis, driven by greenhouse gas emissions and rising atmospheric carbon dioxide concentrations, cannot be overstated. It is time to act.

This policy brief critically examines the legal frameworks crucial for effective climate change mitigation and adaptation, employing a doctrinal methodology complemented by comparative legal analysis. The analysis focuses specifically on the United Kingdom, Finland, and India, jurisdictions that have demonstrated regulatory leadership in the transition toward net-zero emission, providing valuable insights for Malaysia's evolving climate policies. The research draws comprehensively on primary legal sources, including statutes, regulations, and institutional frameworks, as well as secondary materials such as scholarly commentaries, peer-reviewed publications, policy papers, official reports, and industry analyses. This doctrinal approach ensures systematic identification of authoritative legal sources, their interpretation within national and international contexts, and assessment of regulatory integration across different sectors and governance levels. Such methodology enables a structured evaluation of the coherence, enforceability, and capacity of legal instruments to catalyse meaningful climate action. energy infrastructure and transition.

However, any comparative analysis must be conducted with careful consideration of the distinct legal architectures within which states operate, shaped by their unique geopolitical contexts, technical capacities, financial constraints, historical trajectories, and sovereign commitments. Recognising these limitations, the author proceeds to outline concrete legislative recommendations explicitly tailored to Malaysia's climate mitigation and adaptation needs, grounded in comparative and doctrinal insights while remaining sensitive to Malaysia's particular circumstances and capabilities.

United Kingdom's Climate Change Act 2008

a. Legally-binding targets

The United Kingdom's Climate Change Act 2008 sets a legally binding target for the UK to achieve net-zero greenhouse gas emissions by 2050, requiring the net UK carbon account to be reduced by 100% relative to 1990 levels. This imposes a statutory duty on the Secretary of State to oversee and ensure compliance, aligning with the UK's commitment under national climate change legislation and international obligations such as the Paris Agreement ("Climate Change Act," 2008). The Act's alignment with these international commitments underscores the UK's role in the global effort to combat climate change. As clarified during the Act's legislative process, the statutory target serves a normative function: to provide certainty, direction, and long-term policy signalling. The provision is best understood as a strategic governance tool and a legally enshrined benchmark designed to frame and structure long-term decarbonisation targets, within government and across markets and societies.

Further, legally binding carbon budgets are established to reduce greenhouse gas emissions within fixed five-year periods. Each budget is set at least twelve years in advance, providing a clear and accountable framework for long-term climate planning ("Climate Change Act," 2008).

b. Independent oversight

The law creates a comprehensive framework that places an administrative imperative on the Secretary of State to develop and implement policies and proposals aimed at meeting carbon budget limits, while simultaneously establishing the Committee on Climate Change (CCC) as an executive non-departmental public body to provide essential oversight and guidance. The CCC's primary duty is to advise the Secretary of State on the formulation and revision of emission targets, encompassing the 2050 net-zero objective and carbon budgets ("Climate Change Act," 2008).

c. Monitoring and reporting obligations

In addition to its advisory role, the CCC is mandated to report annually to the UK Parliament on the nation's progress toward meeting its climate goals. These progress reports evaluate whether the UK is on course to meet its legislated emission reduction target. More importantly, under the Climate Change Act 2008 (CCA), the government is not only expected, but also legally obligated, to respond to the progress reports ("Climate Change Act," 2008). This situation creates a robust mechanism of institutional accountability and policy feedback loops at both macro (national targets) and micro (sectoral implementation and compliance) levels, instilling confidence in the system.

d. Judicial oversight in climate governance

In *R (Friends of the Earth Ltd and others) v Secretary of State for Business, Energy and Industrial Strategy* [2022] EWHC 1841 (Admin), the High Court found that the UK Government's Net Zero Strategy was in breach of its obligations under the CCA. The Court held that the Secretary of State's approval of the net-zero strategy was made without sufficient information to be satisfied that the carbon budgets could be met, thus failing to discharge statutory duties under Section 13 of the CCA. This ruling has significant implications for the UK's climate policy, as it underscores the importance of evidence-based policymaking, transparency, and accountability in meeting climate targets.

Furthermore, the net-zero strategy breached Section 14 of the CCA, as it lacked quantitative assessments of the contributions expected from individual policies in achieving the net-zero targets. Critically, it did not disclose that the quantitative analysis revealed a shortfall relative to the reductions required by the sixth carbon budget, nor explain how that shortfall was expected to be addressed. In a clear demonstration of the legal system's commitment to enforcing climate policy, the Court then ordered the Secretary of State to lay before Parliament a fresh report, reinforcing the legal requirement of evidence-based, accountable climate policy under the CCA (*"R (Friends of the Earth Ltd and others) v Secretary of State for Business, Energy and Industrial Strategy,"* 2022). e. National climate adaptation frameworks The UK CCA also includes comprehensive provisions regarding adaptation to climate change ("Climate Change Act," 2008). Under these provisions, the Secretary of State is legally obligated to present to Parliament a detailed program outlining the UK Government's climate change adaptation objectives, the policies and proposals designed to achieve them, and the specific timelines for their implementation. This framework is strengthened by a robust accountability mechanism whereby each report by the CCC must include an evaluation of the progress made in implementing the adaptation objectives, proposals, and policies that the government has presented to Parliament. This mechanism creates a comprehensive system of accountability and transparency, with the Committee serving as an independent overseer that monitors, evaluates, and transparently reports on the government's progress in achieving its adaptation agenda, ensuring ongoing confidence in the oversight process.

Finland's 2035 Climate Neutrality Target and National Adaptation Plan

In July 2022, Finland enacted a revised Climate Act, replacing the earlier 2015 framework and establishing a legally binding target to achieve carbon neutrality by 2035. This ambitious objective makes Finland one of the first countries globally to enshrine such a commitment into national law, demonstrating its leadership and significant acceleration in climate policy.

a. Legally-binding targets

The Act's primary aim is to ensure Finland's progression toward carbon neutrality by 2035 through a comprehensive climate policy planning framework ("Climate Act ", 2022). It establishes legally binding interim targets for reducing greenhouse gas emissions across both the effort-sharing and emissions trading sectors, aligned with Finland's commitments under EU climate policy. Specifically, the legislation mandates a minimum 60% reduction in combined emissions from these sectors by 2030, at least an 80% reduction by 2040, and at least a 90% reduction by 2050, with an aspirational target of 95% relative to 1990 baseline levels ("Climate Act ", 2022). The Act is designed to establish a comprehensive and legally enforceable climate strategy that extends beyond electoral cycles, ensuring policy continuity and long-term commitment across successive government administrations.

b. Independent oversight

The Act establishes the Finnish Climate Change Panel, an independent scientific advisory body tasked with producing, synthesising, and analysing climate-related scientific knowledge ("Climate Act ", 2022). The Panel plays a crucial role in informing the planning, implementation, monitoring, and decision-making processes for both climate mitigation and adaptation policies.

c. Monitoring and reporting obligations

To ensure accountability, the Finnish Government must prepare and submit Annual Climate Reports that systematically assess greenhouse gas emission trends and evaluate the effectiveness of implemented and planned measures ("Climate Act ", 2022). These reports demonstrate Finland's progress toward meeting national climate targets and EU obligations.

d. Judicial oversight in climate governance

In *Finnish Association for Nature Conservation and others v. Finland*, six Finnish environmental and human rights organisations filed a groundbreaking lawsuit against their government,

alleging that inadequate climate policies violated the Climate Change Act 2022 ("Finnish Association for Nature Conservation and others v. Finland," 2025). The case represented a significant test of legal accountability for climate action in Finland. The plaintiffs presented a compelling argument that insufficient climate measures, particularly in land-use planning, directly threatened the Sámi people's traditional livelihoods and breached Finland's human rights obligations. In 2025, Finland's Supreme Administrative Court dismissed the immediate claims, determining that the government's current policies, while potentially inadequate, did not constitute a clear legal violation ("Finnish Association for Nature Conservation and others v. Finland," 2025).

Crucially, however, the court established an important precedent by acknowledging that continued failure to meet statutory climate targets could provide grounds for successful future litigation. This nuanced ruling sheds light on the complex terrain of climate accountability law, where courts must strike a balance between judicial restraint and environmental urgency. While the immediate defeat disappointed climate advocates, the court's explicit warning that sustained inaction toward 2030 and 2035 targets will invite renewed legal challenge, which may prove more potent than an outright victory, creating ongoing pressure for meaningful policy action.

e. National climate adaptation frameworks

The legislation also emphasises climate change adaptation, requiring implementation of national measures to enhance climate resilience and strengthen climate-related risk management.

Under the Act, the Finnish Government is required to adopt a National Climate Change Adaptation Plan at least once every two parliamentary terms. The current plan, adopted in 2022, outlines Finland's adaptation priorities and measures for 2022-2030 ("Climate Act ", 2022).

Finland's climate adaptation strategy, outlined in the government report "Adaptation to Climate Change in Finland," prioritises comprehensive cross-sectoral integration over isolated policy responses. The approach centres on mainstreaming adaptation throughout all governance levels, enhancing systematic risk preparedness, and establishing robust institutional frameworks capable of managing both gradual climate shifts and acute weather events (Finnish Government, 2024).

1. The strategy's cornerstone involves integrating climate risk assessment into planning and decision-making processes across national, regional, and municipal levels. Rather than treating adaptation as a standalone policy domain, Finland embeds climate considerations into core sectors including land use, infrastructure, agriculture, forestry, water management, and public health. This integration enables the creation of adaptive systems that respond flexibly to climate variability while maintaining essential service delivery (Finnish Government, 2024)

2. Another central measure is the development of robust climate risk assessments and management systems. Finland has invested in scientific monitoring, utilising advanced technologies and vulnerability mapping with sophisticated data analysis tools.

Enhanced flood risk mapping, for instance, directly informs land-use planning decisions, while real-time soil moisture data supports sustainable agricultural practices. This evidence-based approach ensures that adaptation measures address actual rather than perceived climate risks (Finnish Government, 2024).

3. The revised Climate Act (423/2022) provides crucial legal foundations by mandating national and sectoral adaptation planning processes. This legislation ensures policy continuity across political cycles while establishing clear accountability mechanisms for adaptation outcomes. The Act requires integration of adaptation objectives into long-term climate strategies and introduces systematic progress monitoring, creating a legally binding framework for sustained climate action ("Climate Act ", 2022).

4. Finland emphasises building adaptive capacity through coordinated action among government ministries, municipalities, businesses, and civil society organisations. The Government supports this collaboration through targeted education, training programs, and practical guidance, ensuring that adaptation measures are both implementable and inclusive of diverse stakeholder needs (Finnish Government, 2024).

Finland's adaptation framework demonstrates how legal mandates, scientific evidence, cross-sectoral coordination, and participatory governance can create comprehensive climate resilience; this integrated approach positions Finland to manage climate impacts effectively while maintaining social and economic stability.

f. National climate change policy instruments

The Act establishes several national climate change policy instruments, including the Longterm Climate Plan, Medium-term Climate Plan, and Climate Plan for the Land Use Sector, which serve as vital tools for implementing the objectives of the 2022 Climate Change Act ("Climate Act ", 2022). These plans operate on different timescales, ranging from every parliamentary term to every ten years, and are periodically updated to ensure continued alignment with evolving climate targets and obligations. Central to this framework is a robust public consultation process that systematically integrates stakeholder input throughout the policy development process. Citizens, civil society organisations, and industry actors are given meaningful opportunities to review draft plans and provide feedback before they are finalised for adoption. This participatory approach not only enhances transparency and democratic legitimacy but also ensures that climate policies remain responsive to diverse societal and environmental needs while maintaining broad-based support for implementation.

India's Regulatory and Policy Architecture in Achieving Carbon Neutrality by 2070

India faces escalating climate impacts across environmental, economic, and social dimensions. Intensifying climate disasters, including severe heatwaves, disrupted monsoon patterns, widespread flooding, and groundwater depletion, pose mounting threats to livelihoods, agricultural systems, and critical infrastructure. In response, India has developed an integrated policy framework that addresses both mitigation and adaptation objectives, aligning with national development goals and international climate commitments. These mounting climate risks have reinforced India's commitment to achieving carbon neutrality by 2070, an ambitious target that must navigate the complex challenges of rapid economic transformation, population growth, and significant fiscal and institutional constraints (Das et al., 2025).

In *M.K. Ranjitsinh v. Union of India*, the Supreme Court held that the "right to be free from the adverse effects of climate change" constitutes a distinct fundamental right derived from Articles 21 (life and personal liberty) and 14 (equality before the law and equal protection) of the Indian Constitution ("*M.K. Ranjitsinh v. Union of India*," 2024). This articulation demonstrates a broader trend of constitutional recognition of environmental rights. It also underscores the crucial role of the judiciary in protecting these rights. Embedding environmental rights at the constitutional level imposes affirmative obligations on executive, legislative and judicial arms to protect natural resources and promote sustainable development.

Such entrenchment also provides a legal anchor for holding governments accountable through climate litigation, particularly where inaction or inadequate measures undermine climate targets (Pepper & Hobbs, 2020). The Indian Supreme Court's recognition is thus significant not merely for domestic law, but as part of a global constitutional movement where states, especially those most vulnerable to climate change, elevate environmental protection to the status of a fundamental right ("*M.K. Ranjitsinh v. Union of India*," 2024).

The National Action Plan on Climate Change (NAPCC), launched in 2008, represents India's foundational approach to comprehensive climate governance (Ministry of Information and Broadcasting, 2021). This landmark policy framework stands among the most ambitious climate strategies developed by any developing nation, striking a strategic balance between environmental sustainability and sustained economic development objectives. . The NAPCC provides a strategic blueprint for promoting "development objectives while also yielding cobenefits for addressing climate change effectively (Ministry of Information and Broadcasting, 2021; United Nations Department of Economic and Social Affairs, n.d.)." The State Action Plans on Climate Change (SAPCCs) mirror the NAPCC's mission-based structure, enabling states to localise national priorities by incorporating region-specific vulnerabilities, sectoral risks, and adaptive capacities into their development agendas (Elizabeth Gogoi, 2017).

India's climate ambitions expanded significantly with the submission of its revised Nationally Determined Contributions (NDCs) in 2022, which established more rigorous targets for climate action (Government of India, 2022). The updated commitments include reducing GDP emission intensity by 45% below 2005 levels by 2030 and achieving approximately 50% of installed electricity capacity from non-fossil fuel sources within the same timeframe (Government of India, 2022). These targets align with India's Lifestyle for Environment initiative, promoting sustainable consumption patterns and conscious resource management practices. The NDCs strategically integrate climate objectives with national development priorities, positioning India as an emerging nature-positive economy that can achieve growth while enhancing environmental outcomes.

India's decarbonisation strategy has accelerated through diverse market-based mechanisms, regulatory frameworks, and targeted implementation schemes. Key initiatives include Renewable Energy Certificates (RECs) for clean energy trading, the Perform Achieve Trade (PAT) scheme for industrial energy efficiency, and the Unnat Jyoti by Affordable LEDs for All (UJALA) program for residential energy conservation (Das et al., 2025). These flagship programs have demonstrated measurable impacts on energy efficiency improvements and emission reductions across multiple sectors.

The policy architecture underwent substantial strengthening in 2023 with the introduction of critical strategic documents. The National Electricity Plan 2023 (NEP2023) established clearer decarbonisation pathways, while the National Green Hydrogen Mission positioned India as a global leader in clean hydrogen production. Simultaneously, amendments to the Energy Conservation Act enhanced

regulatory frameworks and institutional capabilities for energy efficiency and renewable energy investments, creating more robust implementation mechanisms ("The Energy Conservation Act," 2001).

Agriculture presents both significant challenges and strategic opportunities within India's climate framework, contributing approximately 19% of national greenhouse gas emissions while supporting hundreds of millions of rural livelihoods (Paritosh Patra, 2025). Climate strategies for this sector must carefully balance emission reduction objectives with socioeconomic equity and rural community resilience, ensuring that mitigation efforts do not compromise food security or agricultural incomes.

The Bureau of Energy Efficiency (BEE) addressed these agricultural challenges through the Agricultural Demand-Side Management (AgDSM) initiative, launched in 2023. This program aims to reduce agricultural power consumption, enhance groundwater extraction efficiency, and alleviate subsidy burdens on power distribution companies. The complementary PMKUSUM scheme (Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhiyan) promotes the deployment of solar power on agricultural land and the use of solar-powered irrigation systems, thereby reducing dependence on diesel-fueled pumps while creating additional income opportunities for farmers (Mohit & Pawar, 2024).

India's evolving climate policy framework has achieved substantial reductions in emission intensity while advancing meaningful climate mitigation across various sectors. The combination of outcome-oriented implementation approaches strengthened federal-state coordination mechanisms, and adaptive legal frameworks positions India to manage climate risks effectively while pursuing its development objectives, offering valuable lessons for other developing nations navigating similar sustainability and growth challenges

Institutionalising Climate Change Mitigation in Malaysia

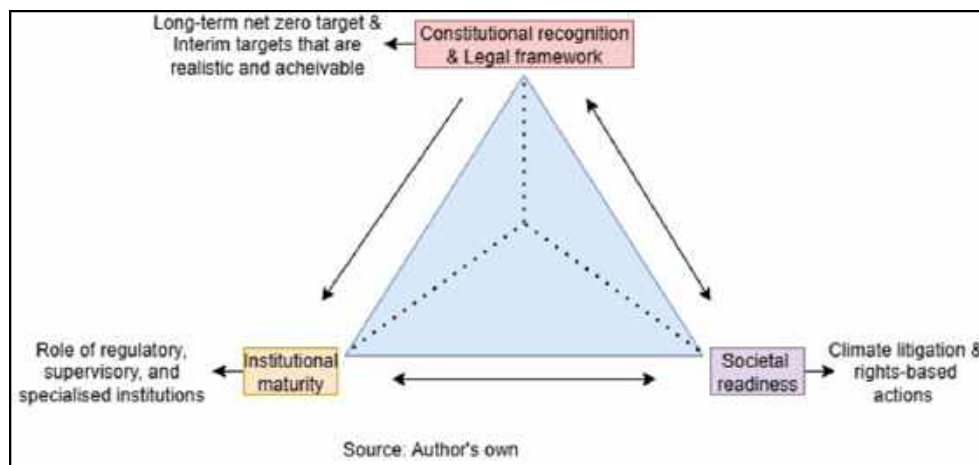
Malaysia's participation in the United Nations Framework Convention on Climate Change (UNFCCC) and subsequent ratification of the Paris Agreement demonstrate the nation's acknowledgement of climate change as a critical global challenge requiring a coordinated international response. These international instruments reflect Malaysia's deep understanding of the immediate need for climate change mitigation and adaptation. Under the Paris Agreement, States Parties are legally obliged to "prepare, communicate and maintain" Nationally Determined Contributions (NDCs). Malaysia's revised NDC, submitted in July 2021, increased ambition with an unconditional pledge to reduce the intensity of carbon emissions per unit of Gross Domestic Product (GDP) by 45% by 2030 compared to 2005 levels (United Nations Development Programme, n.d.).

Malaysia operates under a 'dualist system', a legal framework where international treaties, like the Paris Agreement, do not automatically generate enforceable domestic legal obligations. Such international commitments require explicit legislative incorporation to achieve a binding domestic effect. This constitutional arrangement stems from Malaysia's Federal Constitution, where Article 74, interpreted alongside the Federal List, vests Parliament with exclusive jurisdiction over "external affairs", which includes "treaties, agreements, and conventions."

Furthermore, under Article 80, "executive authority of the Federation extends to all matters with respect to which Parliament may make laws" ("Federal Constitution," 1957). Thus, the Paris Agreement, though binding on Malaysia internationally, requires statutory transposition before its obligations are effective domestically. In essence, Malaysia's commitment under the Paris Agreement, namely its 45% GDP intensity reduction target, remains an international pledge until and unless it is given domestic effect through legislation.

Sarawak's enactment of the Environment (Reduction of Greenhouse Gas Emissions) Ordinance 2023 represents a significant assertion of state legislative authority in environmental governance. The preamble of the ordinance strategically grounds its constitutional foundation on two key principles: (a) that "environment" as a subject matter is conspicuously absent from all legislative lists within the Federal Constitution's Ninth Schedule, thereby qualifying as a residual power under Article 77 that defaults to state jurisdiction, and (b) the ordinance emphasises that land, forests, and water, critical environmental components, are explicitly enumerated under List II (State List), firmly establishing state legislative competence over these domains. This constitutional positioning enables Sarawak to regulate greenhouse gas emissions arising from activities affecting land, forests, water, and other environmental matters within its territorial boundaries.

The ordinance thus represents both an environmental policy initiative and a constitutional statement about the scope of state versus federal authority in Malaysia's federal system ("Environment (Reduction of Greenhouse Gas Emissions) Ordinance," 2023). While these jurisdictional foundations merit a detailed and thorough constitutional analysis, the focus here remains on the proposed Climate Change Act, constitutional recognition of environmental rights, institutional maturity, and societal readiness via climate litigation and rights-based actions.



a. Constitutional recognition and a Climate Change Act

Unlike many jurisdictions that have moved to constitutionalise environmental rights, Malaysia's Federal Constitution contains no explicit recognition of the environment as a fundamental right. This absence is increasingly difficult to justify, given the urgent and escalating climate crisis, which poses existential threats not only to ecosystems but to the survival and dignity of humans. Constitutions are often described as 'living instruments,' designed to safeguard intergenerational justice and liberty (Kotzé, 2012). To exclude environmental rights from such a framework is to ignore the crucial role of the constitution in ensuring that, without a stable climate and healthy environment, other rights, such as the right to life and equality, are rendered peripheral. Constitutional recognition of environmental rights serves multiple functions, particularly as a safeguard against fluctuating political will (Hayward, 2004).

When governments change or political priorities shift away from environmental protection, constitutional entrenchment ensures that ecological values remain legally protected regardless of prevailing political sentiment. This constitutional anchor prevents the erosion of environmental commitments during periods when short-term economic or political pressures might otherwise compromise long-term climate action.

Constitutional recognition would affirm that ecological integrity is a core and foundational precept. It would impose clear duties on the government to legislate, implement, and secure measures for environmental protection. It would also empower courts to hold the government accountable where inaction or weak policies jeopardise intergenerational wellbeing, providing judicial recourse even when political mechanisms fail to deliver adequate environmental protection.

Above all, constitutional recognition would symbolically affirm that –

-- Malaysia's constitutional order is not confined to the present but oriented toward us and our posterity, recognising that future generations are entitled to inherit an environment capable of sustaining life with dignity. This symbolic act would underline the importance of environmental rights in the constitutional framework.

A strong and legally binding policy framework could bring significant benefits by driving efforts to mitigate and adapt to climate impacts, paving the way for a more sustainable and resilient future. Malaysia's climate policy is guided by two key documents: the National Policy on Climate Change 1.0 (2009) (NPCC 1.0) and its successor, the National Policy on Climate Change 2.0 (2024) (NPCC 2.0), issued almost 15 years apart. Both set out strategic objectives, pathways, and actions intended to support the transition to a low-carbon, climate-resilient economy. However, neither NPCC 1.0 nor NPCC 2.0 carries any statutory force. Although NPCC 2.0, built around five strategic thrusts and catalytic initiatives, reflects a deeper engagement with the climate challenge and Malaysia's international commitments, it continues the pattern of soft laws¹, with ambitions set out but no binding legal accountability (Ministry of Natural Resources and Environmental Sustainability, 2024). To strengthen climate governance and institutional capacity for effective planning, regulation and implementation of climate action, Strategy 1 under the NPCC 2.0 calls for the creation of a comprehensive legal framework anchored in a dedicated Climate Change Act.

This legislation would serve as the backbone of Malaysia's climate landscape, empowering the formulation and enforcement of policies, measures, and actions aligned with both national imperatives and international obligations. The proposed Act would fundamentally transform Malaysia's climate governance architecture by formalising the establishment of a climate governance system, potentially through a dedicated entity with cross-sectoral authority ("Rang Undang-Undang Perubahan Iklim Negara", 2024). Beyond institutional reform, it would mandate greater transparency in data and information flows, ensure the integrity and operational efficiency of a national carbon market, and lay the legal foundation for sustainable financial and funding mechanisms. More broadly, this legislation represents a pivotal shift in Malaysia's climate response narrative, transitioning from a fragmented model to one that is comprehensive and legally enforceable.

At the time of writing this brief, the Malaysian government is poised to table its National Climate Change Bill in Parliament² within the coming weeks, following a period of public consultation to gather feedback and refine the draft (Bernama, 2025). This marks a critical step toward codifying Malaysia's climate commitments into legally binding obligations.

b. Legally-binding emissions-reduction target

The UK, a leader in climate action, has established a pivotal, legally binding target whereby the Secretary of State is duty-bound "to ensure that the net UK carbon account for the year 2050 is at least 100% lower than the 1990 baseline ("Climate Change Act," 2008).

¹ Soft laws in the context of climate governance refers to non-binding rules, principles, or standards that influence behaviour, guide policy, and shape the development of binding norms. These non-binding instruments, such as codes of conduct, standards, and guidelines, work in tandem with hard laws by acting as a conduit and precursor to binding commitments to promote compliance. They are instrumental in the complex and evolving field of climate governance, where rapid responses and flexibility are often required.

² In the Malaysian context, codification involves the formal legislative process through which proposed legal principles are consolidated and enacted into statutory law. This process requires three parliamentary readings, introduction, debate, and amendment, followed by a legislative vote. Upon passage by both Houses of Parliament, the bill proceeds to the Yang di-Pertuan Agong for Royal Assent. Once granted, the bill is gazetted and acquires legal force.

In contrast, the proposed legislation in Malaysia does not establish specific, quantitative targets for emission reduction. Under the Bill, the Minister of Natural Resources and Environmental Sustainability (NRES) "may set targets at the National level with approval from [the] Malaysian cabinet ("Rang Undang-Undang Perubahan Iklim Negara ", 2024)."

This distinction is significant because legislated targets provide several crucial advantages. First, they offer clear, well-defined policy objectives that signal strong governmental commitment and intent, both internally to government agencies and externally to investors, industries, and the community. As Rutter & Knighton correctly elucidate, "the effect of legislated targets is to try to bind the hand of successor governments," helping anchor longterm decision-making and foster policy continuity across political cycles (Rutter & Knighton, 2012). Once targets are enshrined in statutory law, they become legally binding obligations that future governments cannot easily reverse or ignore without undertaking the formal legislative amendment process, thereby providing institutional stability for sustained policy implementation.

Because government departments are institutionally inclined to comply with statutory mandates, legislated targets exert a more decisive influence than non-binding policy statements. Moreover, the UK's legislated targets have helped integrate climate goals into cross-sectoral planning, ensuring consistency in regulations and resource allocation. Such legal obligations have solidified climate priorities within the governance framework, hereby enhancing resilience against political volatility and shifting public sentiment, providing stable and long-term direction for climate policy regardless of changes in government or public opinion.

Furthermore, legislated targets serve as drivers for institutional innovation, necessitating improved inter-ministerial collaboration and accountability, which is crucial for establishing credible and enforceable climate ambition. More than just political decisions, the law guides the survival of societies by creating social phenomena and driving social change. The environment and climate are considered collective goods that require protection against individual preference-maximising behaviour (Griffiths, 1979). Law bestows legitimacy to social control, ensuring the maintenance of these collective goods (Griffiths, 1979). Moreover, because collective goods span generations, they should be less vulnerable to political and economic fluctuations. Laws must embed protections and commitments within a durable framework that facilitates resource allocation, defines institutional responsibilities, and mandates the maintenance of collective goods, emphasising the necessity for collective action in addressing climate change.

While long²-term net-zero targets should be enshrined in the Climate Change Act to provide certainty and long-term policy signalling, it is crucial to balance these with immediate targets that are realistic and achievable. Setting overly ambitious immediate targets generates transition risks, particularly in the context of Malaysia, which remains heavily reliant on carbon-intensive infrastructure and fossil-based economic activity.

With the abrupt shift towards a low-emission economy, fossil fuel infrastructures may become 'stranded', thus losing economic value well before the end of their expected life. This could create substantial financial losses for companies, institutional investors, and even public sector entities.

The resulting destabilisation in financial markets not only threatens macroeconomic stability but also constrains the government's fiscal capacity, especially where public services or sovereign funds are tied to fossil-based revenue streams, such as oil royalties or taxes on coal production (TCFD, 2017).

Setting interim targets that are both ambitious and achievable allows for the gradual reallocation of capital, labour, and innovation. This approach maintains credibility in climate governance while reducing systemic risk and political opposition. Legislation should establish a legally binding yet economically sound pathway that addresses both long-term goals and immediate constraints.

c. Judicial review

Malaysia's forthcoming National Climate Change Act should confirm, without any ambiguity, that judicial review applies to governmental climate decisions. It is essential to frame judicial review as something that should be preserved and clarified rather than created, to emphasise it as a right that already exists rather than something new that needs to be written into law.

The UK Climate Change Act 2008 has provided substantive statutory duties, which have enabled the UK courts to play an active role in public interest litigation, most notably in *Friends of the Earth v Secretary of State* (2022), discussed earlier ("*R (Friends of the Earth Ltd and others) v Secretary of State for Business, Energy and Industrial Strategy*," 2022). Beyond the UK, judicial review claims in the climate space are increasingly common in other jurisdictions, reflecting a growing international trend toward climate accountability litigation.

In Malaysia, the Consultation Paper on the Proposed Act provides for "legal protection and immunity to designated enforcement units handling compliance matters, particularly those related to data and information disclosure, carbon trading, and actions taken to implement RUUPIN. This will ensure effective enforcement without unnecessary obstacles." A plain interpretation suggests this provision insulates enforcement authorities from judicial accountability or procedural contestation when executing their mandated functions. The drafting reflects a clear intent to preserve enforcement effectiveness, facilitating seamless implementation while reducing barriers that could otherwise impede or compromise regulatory adherence, thus promoting streamlined administrative processes.

However, legal academics Nyon and Kumaresan have voiced significant concerns that such immunity provisions could pose a serious threat to judicial oversight, akin to "ouster clauses" that violate Malaysia's constitutional structure (Nyon & Kumaresan, 2025). In *Ambiga a/ p Sreenevasan v Director of Immigration, Sabah, Noor Alam Khan bin A Wahid Khan & Ors* [2018] 1 MLJ 633, Zawawi Salleh JCA noted that "ouster clauses are legislative provisions that purport to prevent certain administrative decision from being subject to judicial review. Such clauses thus serve as a signal to decision – makers that they may operate without fear and intervention by the courts at a later stage" ("*Ambiga a/ p Sreenevasan v Director of Immigration, Sabah, Noor Alam Khan bin A Wahid Khan & Ors* ", 2018).

Malaysian jurisprudence has consistently invalidated such constitutional violations.

In the cases of *Nivesh Nair v Dato' Abdul Razak bin Musa*, Pengerusi Lembaga Pencegahan Jenayah & Ors [05(HC)-7-01/2020(W), 25 April 2022] and *Dhinesh Tanaphll v Lembaga Pencegahan Jenayah & Ors* [2022] 1 LNS 583, ouster clauses were held to be invalid and unconstitutional ("*Dhinesh Tanaphll v Lembaga Pencegahan Jenayah & Ors*", 2022; "*Nivesh Nair v Dato' Abdul Razak bin Musa*, Pengerusi Lembaga Pencegahan Jenayah & Ors", 2022).

Further, the Federal Court's landmark ruling in *Ketheeswaran a/l Kanagaratnam & Anor v Public Prosecutor* [2024] 2 MLRA 288 has played a crucial role in establishing that "Art 121(1) in its present form no less preserves the sacrosanct concept of judicial power and judicial review. When read harmoniously with arts 4(1), 121(1) reposes judicial power and its concomitant device of judicial review, singularly in the Superior Courts. Any attempt to whittle away this power, or to replace it entirely whether by legislation or by an executive act is an incursion into judicial power and void under art 4(1). A very clear example of this is ouster clauses which were, in the past, a legislative attempt to oust the supremacy of the FC and as such, void for seeking to mute judicial power and scrutiny referencing *Maria Chin*, *Zaidi Kanapiah*, *Dhinesh* and *Nivesh* precedents) ("*Ketheeswaran a/l Kanagaratnam & Anor v Public Prosecutor*," 2024)." This ruling provides a strong foundation for the protection of judicial authority.

For Malaysia, embedding judicial review in climate laws would allow courts to assess whether ministerial decisions are lawful, rational, and consistent with statutory duties.

Judicial review provides an avenue to ensure that climate obligations are not merely political aspirations but enforceable legal commitments. Judicial oversight would provide a crucial check on executive discretion, particularly where transparency or political will may falter. However, it is important to consider that the scope of judicial intervention in climate matters will ultimately be shaped by the nature of cases brought before the courts and the societal readiness to pursue such claims. The proposed Bill does establish some clear, legally binding duties, such as (a) enforcing mandatory reporting obligations for Greenhouse Gas (GHG) emissions data across various sectors, (b) managing the registration and accreditation of carbon offset projects, and (c) administering compliance markets, including the issuance of permits ("*Rang Undang-Undang Perubahan Iklim Negara*", 2024). Moreover, various other provisions grant discretionary mandates, which would likely attract greater judicial deference during review, as courts typically refrain from substituting their judgment for that of the executive in matters involving policy choices and technical expertise.

d. Establishing an Independent Climate Change Committee in Malaysia

The establishment of a regulatory entity under Part 3 of the Climate Change Bill is envisioned as an enforcer and implementer of the proposed Act with quasi-executive authority ("*Rang Undang-Undang Perubahan Iklim Negara*", 2024).³ Unlike the UK's CCC, Malaysia's proposed regulatory entity adopts a more interventionist regulatory posture. The regulatory entity is described as having a more centralised and managerial function, concentrating on the strategic deployment and collaboration with stakeholders for climate change responses.

³ Quasi-executive authority refers to the ability of an agency to exercise executive-like powers without being part of the traditional executive branch of the government.

It is empowered to operationalise emission reduction mechanisms, enforce reporting obligations for greenhouse gas (GHG) emissions data, register and accredit carbon offset projects and renewable energy initiatives, coordinate climate finance and public awareness, and its role in developing guidelines and standards to ensure compliance with international treaties is crucial. This centralisation may expedite implementation but risks diluting transparency and weakening checks and balances if not institutionally safeguarded.

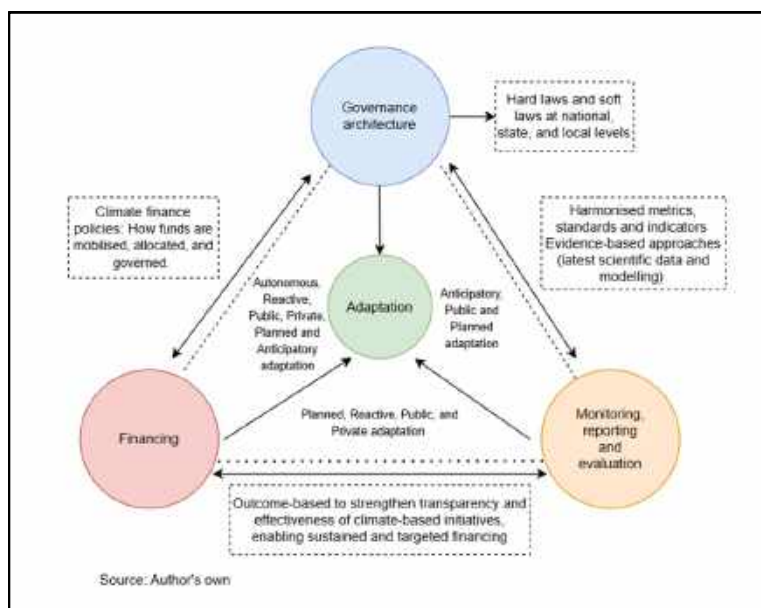
Drawing inspiration from the CCA and to emulate its institutional model, Malaysia should establish an independent CCC to enhance legitimacy and accountability in climate policymaking processes and decisions. This committee could function as a depoliticised source of information, without any affiliation to a political party or stakeholder group, thereby maintaining its independence while performing its key role in the climate action landscape. As an expert advisory body, the committee can provide independent advice to the Malaysian Government, including how to meet climate mitigation and adaptation targets. Furthermore, the CCC must ensure that climate policy aligns with current and latest scientific findings, and it should publicly report on progress toward national climate goals.

Such a position enhances impartial expert scrutiny, institutional credibility, and policy effectiveness, which are three key pillars that facilitate evidence-based policymaking in the current climate landscape.

While the Malaysian Climate Change Bill proposes that the regulatory entity provide "independent advice and recommendations on climate change policies and strategies to government agencies, state governments, and other related stakeholders," it is crucial to emphasise the need for a structurally autonomous, fully independent, expert-driven body that operates at arm's length from the government ("Rang Undang-Undang Perubahan Iklim Negara ", 2024). Such autonomy is essential for effective climate policy, as it creates the necessary separation of powers to foster robust checks and balances on climate policies and targets through credible assessments insulated from political interference. The risks of political interference in climate policy are particularly acute, as short-term political considerations can override long-term environmental goals, undermining the consistency and effectiveness of climate action. An independent body serves as a critical safeguard against such interference, ensuring that climate policymaking processes and progress reporting maintain their integrity and are not compromised by the conflicting demands of policy implementation duties.

Internalising Climate Change Adaptation in Malaysia

There are many parallel and overlapping facets surrounding climate change adaptation in Malaysia and in exploring their dependencies and interactions, the author provides a conceptual sketch of the three elements at play.



The first pillar, the governance architecture, is the cornerstone of climate adaptation. It is a comprehensive framework of both hard and soft law instruments that operate at national, state, and local levels. This architecture provides the necessary legal and institutional infrastructure for facilitating climate adaptation. It includes binding legislative mandates, regulatory frameworks, and administrative rules (hard law), as well as non-binding instruments such as policy guidelines, strategic plans, codes of practice, and voluntary standards (soft law). Effective climate governance frameworks must incorporate principles of equity, fairness, and social justice as fundamental rather than peripheral considerations. Finland's Climate Act exemplifies this approach by mandating that environmental policies promote sustainable development and social equity while protecting Sámi cultural and linguistic rights. Malaysia could adopt similar provisions by ensuring climate legislation safeguards marginalised communities and indigenous populations, integrating their perspectives and needs into environmental policy formulation and implementation processes. Together, the hard and soft laws grounded on these principles establish the normative and operational environment within which adaptation efforts are conceived, implemented, and evaluated.

4 The Intergovernmental Panel on Climate Change defines the types of adaptation: Anticipatory adaptation refers to "adaptation that takes place before impacts of climate change are observed." Autonomous adaptation is "adaptation that does not constitute a conscious response to climatic stimuli but is triggered by ecological changes in natural systems and by market or welfare changes in human systems." Planned adaptation constitutes "adaptation that is the result of a deliberate policy decision, based on an awareness that conditions have changed or are about to change and that action is required to return to, maintain, or achieve a desired state." Private adaptation is "adaptation that is initiated and implemented by individuals, households or private companies." Public Adaptation is "adaptation that is initiated and implemented by governments at all levels." Reactive adaptation is "adaptation that takes place after impacts of climate change have been observed." Intergovernmental Panel on Climate Change (IPCC). (2001). Annex B: Glossary of Terms (Climate Change 2001: Impacts, Adaptation and Vulnerability). <https://archive.ipcc.ch/ipccreports/tar/wg2/index.php?idp=689>

This multilayered approach serves three critical functions: defining clear responsibilities and practices for climate action, enabling coordination across governance levels, and establishing roles for public and private sector actors. By providing this structural foundation, the governance architecture not only legitimises adaptation efforts but also ensures their alignment with broader climate resilience and sustainable development goals, instilling confidence in its credibility and fostering optimism about the future.

Malaysia needs to adopt a strategic framework for climate adaptation that integrates both hard and soft legal mechanisms. In the UK, the CCA 2008 mandates adaptation reporting by the CCC, which involves assessing the extent to which the objectives, policies, and proposals outlined in the adaptation programs have been implemented ("Climate Change Act," 2008). Finland utilises soft law tools, such as National Adaptation Plans, integrated into sectoral and cross-sectoral policies. These plans incorporate evidence-based mechanisms, including mid-term progress reviews, local engagement, and risk assessments and management, within existing institutional frameworks and planning processes (Finnish Government, 2024). India's NAPCC lacks binding force but guides state-level planning. These plans outline proposed adaptation strategies and, in some instances, include indicative timelines and budgetary allocations. Priority is often given to sectors that underpin economic stability and local livelihoods, including agriculture, water resources, energy, transportation, industry, urban development, and forestry (Ministry of Information and Broadcasting, 2021).

Malaysia should adopt a hybrid governance model that strategically combines these international strengths, integrating binding legislation for institutional mandates and reporting requirements with comprehensive policy planning and robust monitoring systems. This approach's core advantage lies in internalising climate adaptation within existing governance structures, building genuine ownership among state authorities while promoting effective cross-sectoral coordination. Rather than creating additional bureaucratic layers, the model would embed climate considerations into routine planning, budgeting, and development processes, enabling systematic development of climate resilience while maintaining the flexibility needed to address Malaysia's diverse regional vulnerabilities and development priorities across various states and sectors. The potential benefits of this model are significant, offering a promising path towards a more climate-resilient future for Malaysia.

Governance architecture plays a pivotal role in shaping climate finance policy design and implementation by determining how funds are mobilised, allocated, and managed. Legal frameworks typically incorporate climate budget tagging systems, green bond regulations, and climate trust funds. India's National Adaptation Fund for Climate Change and Indonesia's climate budget tagging system exemplify how governance structures integrate adaptation priorities into national fiscal planning, providing a clear understanding of their influence and keeping the audience well-informed.

Climate change not only causes societal harm but also poses a significant and urgent financial risk. These risks can be broadly categorised into two types: physical risk from climate events and transition risk from decarbonisation policies (TCFD, 2017). This brief is focused explicitly on the pressing issue of physical risks and how they can be effectively addressed.

As physical climate risks intensify, insurers withdraw from high-risk regions such as flood-prone coastal zones, thereby creating insurance gaps that pose a serious threat to property values. Premiums, where coverage remains, rise to levels unaffordable and inaccessible to most households and firms. (Storey et al., 2017) The main losers are households that cannot insure their homes, businesses with devalued assets, and financial institutions whose collateral loses value. Banks may reduce lending as uninsurable assets no longer qualify as viable security (Bank of England, 2017). The beneficiaries are often insurers who exit markets early and investors who buy distressed assets at low prices, often undermining long-term stability. While uninsured losses do not vanish, they do spread through legal, financial, and social systems. However, it is crucial to note that with the right interventions, their impact can be significantly reduced.

Research by Rousová et al. (2021) demonstrates that when disasters cause damage equal to 1% of a country's GDP, the economy typically loses 0.25 percentage points of quarterly growth in the absence of insurance. However, with insurance covering half the losses, the growth decline drops to 0.06 percentage points. When 75% of damages are insured, the economy may experience an immediate GDP growth of 0.04 points due to faster recovery and rebuilding (Fache Rousová et al., 2021).

Effective governance architecture addresses three key finance-related priorities:

- **Redesigning Financial Instruments:**

The priority is adapting existing risk mitigation instruments or creating new ones tailored for green finance. Green finance, which refers to financial products and services designed to facilitate the transition to a low-carbon, climate-resilient economy, is a crucial aspect of climate governance architecture. Financial authorities can adapt existing tools, such as loan guarantee schemes, to prioritise climate-vulnerable micro, small, and medium enterprises (MSMEs) while expanding climate insurance coverage beyond traditional agricultural sectors. This requires a hybrid-risk sharing mechanism with public-private insurance pools involving multiple insurers teaming up with government agencies to withstand climate impacts and systemic shocks, and government-backed insurance schemes that ensure the uptake of insurance by rural and underserved areas.

- **Enhancing Access and Capacity:**

Central banks and development finance institutions can introduce targeted refinancing operations that incentivise lending to vulnerable sectors while simultaneously building institutional capacity for climate finance implementation.

- **Streamlining Information Systems:**

Governance frameworks can reduce transaction costs by (a) simplifying risk management and reporting requirements for smaller financial institutions, (b) providing targeted capacity-building support to implement green finance practices, and (c) developing shared databases to verify the environmental credentials of clients.

Governance architecture plays a central role in climate adaptation monitoring, reporting, and evaluation (MRE). It establishes the institutional mandates, legal frameworks, and procedural norms that guide adaptation assessment and evaluation. This necessitates a comprehensive monitoring, reporting, and evaluation (MRE) framework that harmonises metrics, standards, and indicators across sectors, ensuring consistency and enabling meaningful comparison of adaptation outcomes.

The MRE framework mandates evidence-based approaches that integrate current scientific data and climate modelling into adaptive decision-making processes. However, most evaluation efforts currently emphasise policy implementation over actual outcomes, underscoring the urgent need for more comprehensive monitoring systems capable of assessing adaptive capacity development and identifying systemic gaps. The financing and monitoring pillars will be examined comprehensively in a forthcoming policy brief by the author.

Conclusion

Ultimately, the case for a well-entrenched climate change mitigation and adaptation framework in Malaysia is solid. This policy brief has charted the institutionalisation and internalisation of climate mitigation and adaptation by drawing on a doctrinal and comparative legal analysis of three jurisdictions: the United Kingdom, Finland, and India. Efforts should encompass (a) constitutional entrenchment and statutory legislation, which together create the legal architecture required for effective climate governance, (b) embedding legally binding emission reduction targets ensuring both principled legal commitment and practical mechanisms for policy implementation and enforcement, (c) strengthening judicial review, and (d) developing independent oversight mechanisms. While this is not a definitive blueprint of climate mitigation strategies and framework, it demonstrates the depth, breadth, and functionality required from a developing country. Further, developing adaptation measures in hard and soft laws embed climate resilience across all governance levels and address intergenerational inequity. As exemplified by scholar Lazarus, "failing to address climate change is so potentially devastating, the greater threat to future generations by far would be the failure of present generations to restrict lawmaking to safeguard the future (Lazarus, 2008)."

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